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| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| Less than 5.0 | No Inspection Required | N/A | N/A | N/A | N/A |
| 5.0 to 5.49 | Trains proceed at Restricted Speed until signals have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 5.5 to 5.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 6.0 to 6.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 150 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 50 Miles | 80 Miles | 150 Miles | 80 Miles |
| 6.5 to 6.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 220 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 70 Miles | 140 Miles | 220 Miles | 140 Miles |
| 7.0 to 7.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 400 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 100 Miles | 300 Miles | 400 Miles | 300 Miles |
| 7.5 and above | Trains stop until instructed to proceed after inspection of track, signals and bridges completed. | As Directed* | As Directed* | As Directed* | As Directed* |

* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

Group 1: California and Baja California, Mexico
Group 2: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico
Group 3: Area east of Group 2
Group 4: Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

**35. Switching and Handling Business Cars**

a. Business Cars must be handled as outlined in accordance with GCOR 7.3, 7.6, and 7.9.
b. Air Brakes—The Business Car air brake system must be connected to the locomotive and the automatic air brake used in controlling movements during switching.
c. Coupling—When coupling into Business Cars, Business Car equipment, or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. Business Cars must not be cut off while in motion or no car moving under its own momentum should be allowed to couple to them.
   Note: Business cars being added to the rear of trains must be performed by a separate locomotive (switch engine) with coupling not to exceed 1 mph. Do not attempt to make a coupling with the rear of the outbound train onto the business cars being added.
d. After Coupling—Once the coupling is made to the Business Car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communication connections.
e. When cars are to be coupled to the observation end of BNSF Business Car 30 (Glacier View) and Business Car 32 (William B. Strong), the car next to the Business Car must be an empty flat, gondola or other type of car with a low profile.
f. 480 Volt electrical jumper cables between Business Cars or any other car so equipped will be considered to be energized until applicable lockout/tagout procedures confirm connections are de-energized. All connections and disconnections are to be performed by authorized Mechanical Personnel Only.
g. Cars are to be considered occupied at all times whether they are moving in the train or parked.
h. When cars or trains are parked, protection must be established as outlined in GCOR 5.12. Local Transportation Department will coordinate with local Mechanical Department to provide required protection.
i. White “Occupied Camp Car” signs will be available on Business Cars through Business Car personnel.
j. All hand brakes must be fully released before moving Business Cars. If a hand brake is not accessible on an enclosed vestibule, the on board Mechanical Rider or Mechanical Supervisor must be contacted to allow access or verify that hand brakes have been released.
k. Business Cars cannot be moved until vestibule steps are raised. Vestibule steps must not be lowered until Business Cars have come to a complete stop.

**36. Instructions for Handling Continuous Rail**

(Excluding articulated loads of 80 ft. length rail or less) Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by ABTH Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the “rail” cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled “Buffer/Idler” in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BNSF 920119 through BNSF 920173 , BNSF 920230 through 920249, and BNSF 920280 through 920299 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

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**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
   - Must be handled in special service.
   - Must not be required to make setouts and pickups enroute.
     - Exception: When authorized to operate two loaded rail trains together, splitting of the trains is permitted.
   - Must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)
   May be handled in trains other than special service under the following conditions:
   - Rail train must be on head end.
   - Train length limited to 64 cars.
   - Should not be required to make setouts and pickups enroute.
   - Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
   - If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative enroute, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
   - Strobe lights at each end ramp car must be observed frequently enroute. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
     a. If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
     b. If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.
   - If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

   The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolyte batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

   The “ramp or tunnel” strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

   To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute; and fully charged batteries will operate them for about sixteen hours.

   The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

   Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

   At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**

Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4” x 4” hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**

When handling empty ‘rail train’ blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car.

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**37. Key Train and Key Train Commodity Securement Requirements**

Do not leave a Key Train or rail cars meeting the Key Train definition unattended on a main track or siding unless permitted by the train dispatcher.

The train dispatcher may only grant permission to leave the train or car(s) at locations specified by timetable/special instructions or when otherwise necessary, after consulting with NOC-General Director Transportation, Corridor Superintendent, Assistant Corridor Superintendent, or Chief Dispatcher to evaluate operating circumstances.

When permission to leave the train or car(s) is received from the train dispatcher:

- Job brief between members of the crew to review all applicable securement requirements.
- Secure equipment as required by all securement requirements of the employing railroad.
- Include the following in a job safety briefing with the train dispatcher, who will verify information is provided:
  - Tonnage and length of train (or total number of individual cars) left unattended,
  - Grade of track at the location as indicated by timetable grade chart.
  - Whether equipment secured is located on curve or straight track,
  - Any inclement weather conditions (e.g., precipitation, high wind),
  - Total number of hand brakes applied,
  - Confirmation the train or car(s) is secure. Communication to include statement, "Conductor and engineer agree securement requirements have been met."

Note: These requirements do not apply when a portion of the train or car(s) is left properly secured and the on-duty crew is:

- Picking up, setting out, or repositioning cars at an industry,
- Switching cars to/from tracks adjacent to main track or siding,
- Adding, removing, or repositioning locomotives, or
- Moving part of a train when doubling a hill or cutting crossings.

**38. De Minimis Territory**

De minimis territory carries a minimal quantity of PIH/TIH materials and must meet certain criteria related to annual tonnage, grade, train spacing, and volume factors including:

- Fewer than 100 loaded cars containing PIH/TIH materials per year, and
- Two or fewer trains per calendar day carrying any quantity of PIH/TIH (loaded and residue/empty).

Prior to operating on de minimis territory train crew must notify the train dispatcher if carrying any quantity of PIH/TIH materials (loaded and residue/empty).

Maximum speed of trains carrying any quantity of PIH/TIH materials on de minimis territory is 40 MPH.

**De Minimis Territories**

| Division | Subdivision | Limits |
|---|---|---|
| Red River | Conroe | MP 77.0 to MP 152.2 |
| Southwest | El Paso | MP 936.1 to MP 1152.5 |
| | Phoenix | MP 135.0 to MP 181.2 |
| Powder River | Casper | MP 458.9 to MP 513.1 |
| Montana | Great Falls | MP 37.3 to MP 97.0 |
| Twin Cities | Aberdeen | MP 704.6 to MP 777.0 |
| | Noyes | MP 0.0 to MP 85.0 |

**39. Train Inspection Due to Track Indication**

A BNSF or foreign line carrier crew instructed by the train dispatcher/control operator to inspect their train due to track indication(s) must promptly stop the train consistent with good train handling procedures and inspect both sides of the entire train. During inspection, particular focus must be given to wheels, axles, trucks or other parts of the train that may cause track damage.

When conditions permit, inspection is to be performed while the train is moving, not exceeding 5 MPH to afford the inspector opportunity to hear a defect such as a broken wheel. To complete inspecting the entire train, inspection may also be performed while backing up not exceeding 5 MPH when all requirements of GCOR 6.6 (Back Up Movements) can be met.

Any side or portion of the train that cannot be inspected while the train is moving must be inspected while the train is stopped. Discontinue inspection if it cannot be completed safely until an alternative is identified by job safety briefing or coordination through the train dispatcher/control operator and/or supervisor.

Notify the train dispatcher/control operator of any defects and when inspection is complete.

**40. Rear End Restricted Cars**

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

**41. Car Identification B-End**

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Multi-platform Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

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**42. Currently Not Used**

**43. Signal Awareness/Position of Switch Form**

Signal awareness and Position of Switch Forms must be completed when operating on subdivisions where PTC is not in effect, or when operating on territory where PTC is in effect and train is not PTC equipped.

Note: On PTC active trains where the PTC system becomes inoperable enroute, Signal Awareness and Position of Switch Forms are not required to be completed.

Subdivision-specific signal awareness/position of switch forms available at on-duty points must contain at least the minimum requirements shown on the standard form. These forms may contain additional subdivision-specific information as approved by the Division General Manager. When subdivision specific signal awareness/position of switch forms are not available, crew members may request a standard form be included with the GTB. When required, in addition to observing and calling signals as required by GCOR 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects, yellow or yellow-red flags and trackside warning detector exceptions must be recorded.

Record the following:

- CLEAR signals - Name or aspect.
- All other signals - Name or aspect of the signal, the train speed and time signal passed.
- Flags - Name and location of each flag, the train speed and time flag passed.

When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (outside of restricted limits or yard limits) a crew member must record:

- Name and location of hand operated main track switches, switch point locks, and derails operated.
- Name and location of hand operated main track switches left in reverse position.
- Time and initials of employee operating the main track switch, switch point lock or derail.
- Time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form.
- Entry of appropriate box number when switch is left in reverse position.

Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail. The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. If not practical for both the conductor and engineer to initial the form, after a job safety briefing, the person filling out the form can enter the other initials on the form. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, when completion of Position of Switch Form is required and operating in non-signaled territory or Double Track ABS territory (except in Restricted Limits and Yard Limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position." If radios become inoperable, all members of crew must job safety brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

Standard forms:

Signal Awareness Form (Location to Location)

Date:_____ Conductor:_____ Engineer:_____

Train Symbol:_____

| Block System Limits | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Signal Location<br>Detector Exception | Signal Name | | | | | | *Speed | *Time Passed<br>Time at Required Speed | Flag Location and Name |
| | Clear (Mark X) | Approach Medium (Mark X) | Approach (Mark X) | Stop and Proceed (Mark X) | Stop (Mark X) | Other (Mark X) | | | |
| Examples | | | | | | | | | |
| CP 5325 | X | | | | | | | | |
| CP 5332 | | | X | | | | 40 MPH | 1545<br>1548 | |
| WSS Anna | | X | | | | | 60 MPH | 1715 | |
| | | | | | | | | | |
| TWD MP 566.5 | Exception - Main 1, Hot Journal, Axle 45, Right side | | | | | | | | |

*It is not required to indicate speed and time for CLEAR signals.
The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting
Y - Yellow Flag, Y/R - Yellow-Red Flag

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| Position of Switch/Flag Location | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subdivision(s) | | | | | | | |
| Flag Location | Flag Name | MPH | Switch/Derail/Switch Point Lock Name and Location | Time/ Initials Operated | Time/ Initials Restored | Engineer's Initials | Conductor's Initials |
| Examples: | | | | | | | |
| MP 21 | Y | 30 | | | | | |
| | | | W House Track SW Bess | 1800 LGW | 1935 LGW | KDW | DET |
| | | | ESS Anna | 2100 LGW | Box 13 | KDW | DET |
| The following abbreviations may be used: Y - Yellow Flag, Y/R - Yellow-Red Flag | | | | | | | |
| Conductor Signature: | | | | | | | |

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)
  - Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
  - Place in company or US mail for handling.
- Notify the train dispatcher of the near collision providing as much information as possible. The dispatcher will notify the ROCC.

Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF Police personnel or to the Resource Operations Call Center at 1-800-832-5452.

**45. Network Operations Center Notification Requirements**

**Procedures for Contacting Help Desks**

- Train Dispatcher - Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an HTD/ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Chief Dispatcher - For Mechanical Related Service Interruptions (SIs), must make sure that the correct lead locomotive ID, ETD, cars, etc., are correctly reported when generating a service interruption in SIDOL.
- Mechanical Help Desk - After initially recording and providing general information about defective locomotives, cars, or an HTD/ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Train crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

Note: At terminals, locomotive and/or HTD/ETD defects (on either ROAD or YARD locomotives) must immediately be reported to local supervision the Mechanical Help Desk. A bad order tag must then be attached to the ETD to prevent subsequent use before repairs can be made and be governed by local supervision on where to place bad ordered ETD.

- Bad Order ETD Handling Between Terminals- Train crews who have a bad order ETD removed from their train must open an ETD defect with the Mechanical Desk, attach a bad order tag to the ETD, and either turn over the bad order ETD to the mechancal responder on site or if no mechanical responder is assisting train, transport the bad order ETD in the front portion of the cab of the lead locomotive. When transporting, ensure the ETD is placed to where a tripping hazard will not exist while entering and exiting the locomotive cab. Upon reaching the terminal, the train crew must contact and be governed by local supervision on where to place the bad ordered ETD. Train crews being relieved enroute must notify relief crew of bad ordered ETD placed in the cab for their handling upon reaching terminal.

Before repositioning of the lead locomotive in a consist, train crews must contact the Mechanical Help Desk to check lead qualification status of other locomotives in the consist to determine which may be used as a lead locomotive.

The Mechanical Help Desk may be contacted by phone at:

Operations North-817-352-2840, Co. Line 8-352-2840
Operations South-817-352-2836, Co. Line 8-352-2836

Service Support-In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting:
BNSF company line-8-593-7610
Toll-free line-800-549-4601
BNSF fax line-8-593-7615
Fax toll-free line-800-234-1341

Interchange reporting:
BNSF company line-8-593-7640
Toll-free line-800-206-3846
BNSF fax line-8-593-7645
Fax toll-free line-800-223-6757

**46. Special Car Handling Instructions (SCHI)**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

| CODE | DESCRIPTION |
|---|---|
| AG | Armed Guard Service |
| AV | Annual Volume |
| BH | Bad Order Home Shops |
| BN | If Bad Order Notify Shipper |
| BT | Bare Table Flat |
| B1 | Bad Order |
| B2 | Cleaned (swept), Holes in floor 1 in. to 6 in. |
| CA | Moving to a Customer Demand |
| CB | CARB (See Note 3) |
| CC | To Be Cleaned and Conditioned |
| CD | Condemned Car (See Note 1) |
| CI | Customs Inspection |
| CO | Coload Manifest Car |
| CR | Empty Coal Car Moving as Revenue |
| CS | Customer Storage |
| CU | Customer Stage |
| CY | Certification That This Equipment is for Recycling |
| DB | Distributed Van Bad Ordered |
| DH | Do Not Hump |
| DI | Redistribute at Destination |
| DK | Do not couple to double shelf coupler cars |
| DN | Shipper's Authority Required for Diversion |
| DO | Delivery Order Shipment |
| DR | Drop Yard |
| DS | Do not spot for loading other than hazardous last contained. |
| DT | Distributed Intermodal Equipment |
| DU | Do Not Uncouple |
| DV | Unit has been diverted |
| EC | Speed Restriction 55 MPH |
| EH | Embargo Hold |

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EL ..... Empty Container Mechanical Lock
EM ..... Hold for Equipment Management
ER ..... Return Empty Via Reverse Route
ES ..... Expedited Service
EW ..... Hold Early Warning
FA ..... Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB ..... Automobiles Headlights Facing B (Brake End) of Autoveyor
FM ..... Fumigate Car Now
FP ..... Fumigation Placards Applied
HA ..... Cars Held for the Customer in Bond Pending Customs Authority
HB ..... Hold for Billing—Mini Waybill Indicating Industry to Bill
HC ..... Hold for FMC Redistribution
HD ..... Cars Held for Customer Diversion
HE ..... Head End Only
HF ..... Car Held for BNSF Rail Clearances (High Wide)
HG ..... Cars Held for BNSF Pending Customer File Information
HH ..... Cars Held for Overload Condition
HI ..... Hold for Inspection
HJ ..... Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK ..... Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL ..... Excessive Dimension
HM ..... Moving in ISO Tank Container
HN ..... Cars Held for Specified Local Conditions, **Restricted Usage
HO ..... Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR ..... Cars Held for Customer Furtherance Instructions After Arrival at Destination
HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement
HT ..... Heat Car
HV ..... High Value Shipment
HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier
IB ..... In BNSF Bond
IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs
ID ..... In Bond Beyond BNSF Destination
IE ..... Interchange Error
IH ..... Inhalation Hazard
IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico
IN ..... Hold for Inspection
IS ..... In Shipper's Bond
IU ..... Inspection was Requested by US Customs at Port of Entry into USA
LC ..... Car Trip Leased to Consignee
LD ..... Local Distribution Empty
LG ..... Loaded to Gallonage Capacity
LO ..... Local Orders
LQ ..... Loaded to Full Cubic Capacity
LS ..... Handle in Local Service Only
LU ..... Unload in Laredo proper
LV ..... Loaded to Full Visible Capacity
LX ..... Cleared for export via Laredo
L1 ..... Customer Location 1
L2 ..... Location 2 - East Plant
M8 ..... Inspect 8 axle or greater span bolster car for ride quality components
MB ..... Make Bill of Lading
MC ..... Measure Car Now
MD ..... Mixed Destination Intermodal Units
MI ..... Requires mechanical inspection, do not move on train.
MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit
MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit
NC ..... Non-credit Patron
ND ..... Do Not Divert
NH ..... No Hit—Car Distribution
NL ..... IMDL van or container requires Nava Lock device
NM ..... Non Misc. Credit Patron—Car held account charges due
NP ..... No Placards Required
NT ..... Do Not Transfer Contents
OI ..... Oils Marine Pollutant
ON ..... Oil Notation
PD ..... Privately Owned Equipment Subject to Demurrage
PH ..... Hold for Pool Destination
PJ ..... Mechanical Project Job
PR ..... Prospective Loading Empty
PT ..... Hold for Pre-Trip
QD ..... Hold for Queue Demand
QH ..... Hazmat Hold—Do Not Transport
RC ..... Restricted Commodity
RE ..... Rear End Only
RI ..... Rail Inspection Service
RJ ..... Hold for Rejected
RL ..... Revenue Locomotive - Check for Alignment Control
RP ..... Rail Controlled Private
RS ..... Rule 7 Reject Candidate
SC ..... Equipment Scrapped
SD ..... Car Sold
SE ..... Hold for Seasonal Storage
SF ..... Feed Now
SH ..... OPSL Hold
SO ..... Shipper's Order
SR ..... Rail Surveillance Required
SS ..... Surplus Storage
ST ..... Move on special train only, requires single car train movement.
SW ..... Switch Only Empty Furnished by Foreign Road
SX ..... Speed Restriction Exception to Sys Special Inst. - OK to Run at Train Speed
TB ..... Car Control Distributed Bad Order
TC ..... Tank Car, Meets CPC-1232 standards
TN ..... Tank Car, Non - CPC-1232 standards
TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated
TS ..... Transit Shipment
TU ..... Turn This Car Now
UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.
UP ..... Unloaded as Placarded
UR ..... Unload from right side (from brake end)
VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)
VB ..... Vehicles Headlights Facing B-End (Brake End)
WA ..... Weigh After Spotted and Released
WB ..... Weigh This Car Both Before and After It Goes to Spot
WH ..... Weigh
WI ..... Waive Inspection
WL ..... Weigh Light
XM ..... Cleared to Cross from US to Mexico
25 ..... 25 MPH Speed Restriction (See Note 2)

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Clean and Condition Codes for Empty Cars**

| CODE | DESCRIPTION |
|---|---|
| F1 | Washed, Food Grade |
| F2 | Cleaned (Swept), Food Grade |
| F3 | Dirty, Food Grade |
| F4 | Cond/Repairs, Food Grade |
| F5 | "Not Observed", Food Grade |
| F6 | Rinse, Food Grade |
| F7 | Inspected, Food Grade |
| P1 | Washed, Processor Grade |
| P2 | Cleaned (Swept), Processor Grade |
| P3 | Dirty, Processor Grade |
| P4 | Cond/Repairs, Processor Grade |
| P5 | "Not Observed", Processor Grade |
| P6 | Rinse, Processor Grade |
| P7 | Inspected, Processor Grade |
| S1 | Washed, Standard Grade |
| S2 | Cleaned (Swept), Standard Grade |
| S3 | Dirty, Standard Grade |
| S4 | Cond/Repairs, Standard Grade |
| S5 | "Not Observed", Standard Grade |
| S6 | Rinse, Standard Grade |
| S7 | Inspected, Standard Grade |
| S0 | Washed and Sanitized |

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

**Note 3.** The California Air Resource Board (CARB) has instituted tighter emissions standards for transportation refrigeration units. Some BNSF refrigerated boxcars are not compliant with the new standard and therefore cannot originate, terminate or transit through California state. Non-CARB-compliant cars can be identified by a CB code in the SCHI field and are color coded reverse video blue in TSS.

Equipment management controls have been implemented to assign only CARB cars to the state of California. Waybill edits will verify compliance at release and place a STOP on non-CARB cars if waybilled to a California destination.

No substitution between Non-CARB and CARB cars is allowed unless work orders specifically authorize the exception. Yard Block HOLDCB prevents any Non-CARB cars destined to California, or originating in California from scheduling to a train. Cars will go HOLDMT at origin.

Non-CARB cars will not schedule to trains terminating in or passing through California. Attempts to TRNSET a Non-CARB car to a California-routed train will result in a pop-up window advising that the car must be removed from the line-up and explaining why.

For questions or assistance with handling exceptions for BNSF refrigerated boxcars, email your concerns to the CARB Resolution Team at "MKT DL CP CARB".

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M2F and M3F (articulated Hi Bi/Tri-Levels) must not be operated on any Branch Line or on any of the following locations:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Carlsbad Subdivision—Mines Jct. to Carlsbad
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Laurel Subdivision
- Lester Subdivision
- Longview Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Scenic Subdivision—(Exception: Car kinds M2F and M3F may operate on this subdivision and use only MT 2 between MP 0.15 and MP 1.11.)
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Mitchell Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kinds M2F and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7 f).

**47. Train Makeup Instructions**

If a train is determined to be out of compliance with these train makeup rules as listed in items 47 & 47(A), and the maximum authorized speed exceeds 45 MPH, the speed must immediately be reduced to 45 MPH and the train dispatcher notified. The train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**System Tonnage Restrictions:**

1. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car):
   - Any car 80 ft or longer coupled to any car 45 ft or shorter.

   Note: Item 1 does not apply to test cars BNSF 82/83 and multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars.)

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2. The following cars must not be ahead of more than 5,500 trailing tons:
   - Multi-platform spine cars, regardless of how loaded.
     - See Subdivision Specific Tonnage Restrictions below for additional multi-platform spine car tonnage instructions.
3. Trains greater than 5,500 total tons (excluding empty bulk commodity trains):
   Restricted cars must not be within the first 10 cars/ platforms

The following are restricted cars that pertain to SSI 47 System Tonnage Restrictions Item 3 and Mountain Grade Tonnage Restrictions Items 1 & 2 below:

- Any conventional car (non-multiplatform) weighing less than 45 tons.
- Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) and Wind Tower Trains with distributed power.
- Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.
  Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
- Multi-platform cars with any empty platforms. Note: All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.

4. Trains greater than 7,000 tons:
   The rear 1/4 of the train by car count must not weigh more than 1/3 of the total weight.
   Exception: This does not apply to:
   - trains made up entirely of cars weighing a minimum of 45 tons each.
   - solid loaded or solid empty unit bulk commodity trains.
   - trains made up entirely of intermodal equipment.

**Mountain Grade Tonnage Restrictions**

The following restrictions are in addition to System Tonnage Restrictions (excludes solid empty bulk commodity trains):

1. On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 2,500 trailing tons.
   - Trains greater than 2,500 tons and less than 3,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 3,000 tons or greater, restricted cars must not be within the first 15 cars/platforms.
2. On Cajon (Main 3, MP 56.6 - MP 62.8), North County Transit Coaster (MP 250 - 255), Gateway (MP 178.0 - 188.0), UPRR Mojave (MP 331.3 - MP 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5) Subdivisions, the following additional restrictions apply:
   - Trains greater than 3,500 tons and less than 4,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 4,000 tons or greater, restricted cars, automax cars weighing less than 120 tons, and autoracks weighing less than 60 tons (does not apply to DP trains consisting entirely of automax/autorack cars), must not be within the first 15 cars/platforms.
3. On Cajon (Eastward Main 3, MP 56.6 - 62.8), North County Transit Coaster (MP 250 - 255), UPRR Mojave (Eastward MP 331.3 - 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Gateway (Northward MP 178 - 188), Stampede (MP 41 - 58.5) and Scenic (Eastward MP 1694.5 - 1731.3) Subdivisions, the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 4,000 trailing tons.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 3, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

**Subdivision Specific Tonnage Restrictions**

Intermodal trains operating with multi-platform spine cars, regardless of how loaded, are subject to System Tonnage Restrictions as well as the additional restrictions below:

On the Chillicothe, Marceline, Emporia, Arkansas City, La Junta, Topeka, Panhandle, Hereford, Clovis, Gallup, Seligman, Needles, Fort Worth (between MP 365 and MP 355), Wichita Falls and Red River Valley Subdivisions, trains operating with DP may exceed 5.500 trailing tons behind multi-platform spine cars if the following conditions are met:

1. No more than 30 cars equipped with End of Car Cushioning (Autoracks and Super Reefers identified in subdivision specific timetable).
2. Trains operating with rear only DP:
   - Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.
3. For trains operating with cut-in DP:
   - Tonnage ahead of and behind the cut-in DP consist must be within 2,000-tons of each other.
   - Trains operating with DP consist cut-in and no rear DP:
     Multi-platform spine cars ahead of the cut-in DP must not be ahead of more than 11,000 trailing tons. In addition, multi-platform spine cars behind the cut-in DP must not be ahead of more than 5,500 trailing tons.
   - Trains operating with both cut-in and rear DP:
     Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.

**Exceptions**

Trains which are exempt from the above train makeup instructions will be identified on Division General Order.

UPRR trains operated on BNSF may operate in compliance with UPRR train makeup rules with the exception of distributed power train length limitations as outlined in 47(A).

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train makeup instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train makeup instructions, train is authorized to operate on BNSF at a maximum speed of 45 MPH.

**Train Length, Tonnage and TOB**

When complying with Special Instructions covering speed and other train restrictions where calculations of train length, tonnage and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

Exception:

1. The weight of isolated/inoperative locomotives is added to train trailing tonnage when determining HPT in the application of ABTH Rule 106.1 Regulating Horsepower per Ton, and

2. The weight of locomotives with isolated/inoperative dynamic brakes is also added to train trailing tonnage when determining the minimum number of dynamic brake axles where required on mountain grade subdivisions.

**Military Train**
Unit military trains containing shipments on cars with end of car-cushioning, shown on the train profile as EOC, shall have no more than a total of 80 cars in the train when operating with conventional power (head end only). Train may operate in excess of 80 cars but no more than 90 when operating with a distributed power consist, either cut-in and/or on rear of train. If train (DP or non-DP) exceeds 60 cars, speed is restricted to 45 mph.

**Loaded Coiled Steel Cars**
The maximum number of loaded coiled steel cars and GRS/G0S on any train is limited per the table below:

| Total Coil Cars in Train | Maximum # of GRS/G0S Coil Cars |
|---|---|
| 80 | 0 |
| 70 | 10 |
| 65 | 20 |
| 60 | 30 |
| 55 | 40 |
| 50 | 50 |

Additional Train Makeup Restrictions Applicable to Trains Containing Coiled Steel Cars Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft. Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP - 496.1) and Wichita Falls and UP Lufkin.

**1. Conventional Unit Coiled Steel Trains**
Conventional (non-DP) unit trains made up entirely of loaded G0S and GRS cars are limited to 30 cars total and will be operated in a 2x0 configuration.

**2. Conventional Manifest Trains Containing Coiled Steel Cars (mixed freight without distributed power)**

| Total Train Tonnage | Maximum Loaded Steel Cars with End of Car Cushioning Allowed |
|---|---|
| 4,500 tons or less | 30 |
| 4,501 - 5,500 tons | 25 |
| 5,501 - 6,500 tons | 20 |
| 6,501 - 7,500 tons | 15 |
| 7,501 - 8,500 tons | 10 |
| Greater than 8,500 tons | 0 |

When moving on conventional trains, all loaded shipments identified by car kind code G0S or GRS (includes ATSF, BN, BNSF, foreign and private equipment) must be placed within the first 20 cars of the train and be as close to the locomotives as practical. When handling more than 20 G0S or GRS loaded shipments, these cars must be placed directly behind locomotive consist.

**3. Unit Coiled Steel Train Operating with DP**

Unit trains made up entirely of loaded G0S and GRS cars are limited to 50 cars total and will be operated in a 1X2 DP configuration with dynamic brakes cut out on the trail unit of the remote DP consist. The dynamic brakes must remain cut in on the controlling DP remote unit.

**4. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with DP on Rear**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars)
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist.

**5. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with Cut In DP**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars) ahead of the cut in DP
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist
- May not have more than 15 additional cars equipped with end of car cushioning behind the cut in DP.

**Wind Tower Trains**
Wind Tower Trains containing loads and empty idler cars shall have no more than a total of 80 cars in the train. Trains exceeding 5,500 tons must operate with a single distributed power unit either cut in or on rear of train.

**47(A). Train Makeup Instructions and Locomotive Requirements Applicable to Conventional, Distributed Power and Manned Helpers**

Note: In the application of instructions below, the terms "DP and "DP remote consist(s)" refers to trains utilizing distributed power and/or manned helper consists. The term "rear end" refers to the very end of the train and "cut in" refers to placement within the train with cars on both sides. RPA refers to Rated Powered Axles and can be referenced in SSI, Locomotive Data Table, 2(B).

**1. Maximum Rated Power Axle (RPA) Limitations for Conventional, Distributed Power and Manned Helper Placement**

| Train Type | Head End | Cut In DP/ Helper | Rear end DP/ Helper |
|---|---|---|---|
| Manifest | 42 | 24 | 16 |
| Intermodal | 48 | 24 | 16 |
| Empty Bulk Commodity | 24 | 16 | 8 |
| Loaded Bulk Commodity (no empties in train) | 32 | 40 | 24 |

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**DP RPA Differential:**
Single Remote/Helper Consist- If operating with one distributed power consist either cut-in or on the rear, total RPA of head end locomotive consist must not exceed 16 RPA of the total RPA of DP/Helper locomotive remote consist. In addition, total RPA of the remote consist must not exceed 8 RPA of the head end locomotive consist.

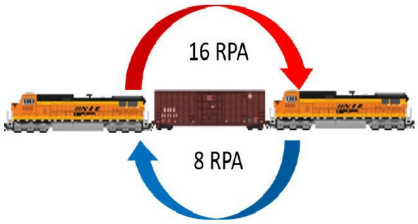



*Figure 1.*

**Multiple DP Consists**
If operating with distributed power cut-in and on the rear, individual consist RPA must not exceed 16 RPA of the next consist towards the rear of the train (Head to Mid; Mid to rear). In addition, RPA of each consist must not exceed 8 RPA of the next consist towards the head end of the train (rear to mid; mid to head end).
Exception - Does not apply to loaded bulk commodity trains.

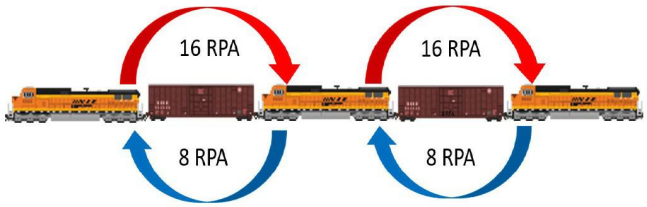



*Figure 2.*

Exception: Trains exceeding 8,000 tons operating on the heavy grade subdivisions listed below, must limit the total RPA of the head end locomotive consist to no more than 8 RPA greater than the total RPA of the DP/Helper locomotive remote consist(s).

Cajon (Main 3, MP 56.6 - MP 62.8, eastward only)
Gateway (MP 178.0 - 188.0, northward only)
Glorieta (MP 775.0 - MP 842.0)
Raton (MP 639.0 - MP 660.0)
North County Transit Coaster (NCTC) (MP 250 - 255)
Scenic (MP 1694.5 - MP 1731.3)
Stampede (MP 41.0 - MP 58.5)
UPRR Moffat Tunnel (MP 17 - 63)
UPRR Mojave (MP 331.3 - MP 381.3, southward only)
UPRR Provo (MP 626 - 685)

**2. DP Remote and ETD Placement Limitations**

| Distributed Power and ETD Length Limitations | |
|---|---|
| **Train description** | **Maximum length allowed, excluding locomotives** |
| Conventional trains and trains operating with a cut-in single DP/ helper consist not equipped with mid-train ETD repeater | 10,000 ft between lead locomotive consist and end of train device (ETD) on rear<br>Exception: Loaded vehicle trains - 8,000 ft between lead locomotive consist and ETD on rear |
| Trains operating with cut-in DP/ helper consist (mid-train ETD repeater) with 2-way ETD | 16,000 ft between lead consist and ETD |
| Solid intermodal trains containing no autoracks operating with a single DP remote consist on rear | 12,000 ft between lead consist and remote DP consist (Lead locomotive and DP remote must be LXA equipped) |
| Solid intermodal (without LXA), manifest, or bulk commodity trains operating with a single DP remote consist on rear | 10,000 ft between lead consist and remote DP consist |
| Train of any type operating with two DP remote consists, cut in and on rear of train | 16,000 ft between lead consist and rear remote DP consist |

Placement instructions for Cut in/Helper DP Consists:

a. One DP Remote Consist

A single DP remote consist cut into the train must not have the cut in DP consist further than 10,000 feet from the head end of train (excluding locomotive length). Single DP consists cut into the train exceeding 8 RPA must be cut in at 300 tons per axle exceeding 8 RPA, but no closer to the head end than 20 cars forward of mid-train, by car count, as long as train makeup requirements next to DP remote consist outlined below in Item 47(A) 3 and 4 are met.

Exception: The requirement to cut in at 300 tons per axle exceeding 8 RPA does not apply to solid intermodal trains, trains with solid intermodal equipment behind cut in DP/Helper consist or trains with loaded bulk commodity cars ahead of cut in DP/Helper consist. On solid intermodal trains, the DP remote consist must be cut in no closer than 1000 feet forward of mid train by length, as long as train makeup requirements next to DP remote consist outlined below in item 47(A) 3 and 4 are met.

b. Two DP Remote Consists

When two DP remote consists are used, they must be positioned with one DP remote consist cut into the train, and one DP remote consist at the rear end. The cut in DP remote consist must not be cut in further than 10,000 feet from the head end of train (excluding locomotive length) and must not be closer to the head end than 20 cars forward of mid-train, by car count.

Exception: Solid intermodal trains operating with two DP remote consists must not have the cut in DP remote consist further than 10,000 feet from the head end of train (excludes locomotive lengths) and must not be closer to the head end than 1,000 feet forward of mid-train, by length.

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### 3. System Distributed Power and Manned Helper Train Makeup Restrictions

<table>
<tr><th colspan="2">DP Locomotive Consist RPA/ Location/Restricted Car Placement</th><th>Restricted Cars</th></tr>
<tr><td>Cut In DP/ Helper, any RPA</td><td>Rear end DP/ Helper, any RPA</td><td></td></tr>
<tr><td colspan="2" rowspan="3">Must be at rear of train behind any rear end DP/helper consist</td><td>Cars indicated as rear end only.</td></tr>
<tr><td>AMGX 2-unit solid drawbar connected gondolas</td></tr>
<tr><td>Occupied caboose</td></tr>
<tr><td>Cut In DP/Helper 9 - 24 RPA</td><td>Rear end DP/Helper 9 - 16 RPA</td><td></td></tr>
<tr><td rowspan="5">Restricted cars listed must not be within 5 cars or platforms/ wells ahead of or behind cut in consist.<br>Exception: Does not apply to empty bulk commodity/ combination trains, trains with only baretable equipment behind the cut in DP or to loaded single well double stack cars of any weight (car kind beginning with QU or QK).</td><td rowspan="5">Restricted cars listed must not be within 10 cars or platforms/wells ahead of consist on rear end.</td><td>Any car 80 ft or longer coupled to any car 45 ft or shorter.<br>Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer.<br>(Examples: Twin flat cars and Automax cars.)</td></tr>
<tr><td>Any conventional car (non-multiplatform) weighing less than 45 tons.<br>Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK)</td></tr>
<tr><td>Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight.<br>Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/ container on either segment/ platform.</td></tr>
<tr><td>Empty platforms/wells of a multiplatform car.<br>All multi-level, multi-platform autorack cars referred to as “AutoMax” cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.</td></tr>
</table>

### 4. Additional Train Makeup Restrictions Applicable to DP Trains Operating on:

Birmingham, Cuba, Ft Scott, Ft Worth, Galveston, Lampasas, Phoenix, Seligman, Thayer North, Thayer South, Wichita Falls and UPRR Lufkin Subdivisions.

<table>
<tr><th>DP Locomotive Consist RPA/ Location/Restricted Car Placement</th><th>Restricted Cars</th></tr>
<tr><td>Cut In DP/Helper or rear end DP/Helper up to 8 RPA</td><td></td></tr>
<tr><td rowspan="2">Restricted cars listed must not be placed within 5 cars or platforms/wells of DP/Helper consist. (cut in and/or on rear end)</td><td>Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.)</td></tr>
<tr><td>Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.<br>Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.</td></tr>
<tr><td>Cut In or Rear End DP/Helper consist of 9 – 24 RPA (Does not apply to trains with 2, single-locomotive DP remotes)</td><td></td></tr>
<tr><td>Restricted cars listed must not be placed within 10 cars/ platforms of lead consist and remote consist(s)</td><td>Any conventional car (non-multiplatform weighing less than 45 tons.<br>Exception: Does not apply to empty bulk commodity/ combination trains operating with cut in DP consists or loaded single well double stack cars of any weight (car kind beginning with QU or QK).</td></tr>
<tr><td>Restricted cars listed must not be placed between lead consist and remote consist(s)</td><td>Intermodal equipment other than double stack and autoracks, regardless of how loaded. (Conventional intermodal flat cars, spine cars - car kind QM, QC, QO, Q5 and QE and twin flats - car kinds FM, QB, QD and QL.)</td></tr>
<tr><td></td><td>No more than 30 cars with end of car cushioning ahead of any individual consist of 9 RPA or greater. (Does not apply to solid intermodal and solid loaded bulk commodity unit trains with cars equipped with end of car cushioning.)</td></tr>
</table>

### 5. Limiting Tractive Effort When Using Manned Helpers with Trains Not in Compliance with Train Makeup Guidelines:

Conventional trains may be helped from the rear of train with a manned helper only (DP may not be used) when exceeding axle limitation guidelines above if train is disabled and not in compliance with train makeup restrictions for DP/Helper service as outlined above. Tractive effort limit when exceeding 8 rated powered axles and helping trains not in compliance with DP/Helper train makeup guidelines as follows:

**Manned Helper Controlling Locomotive with Amperage Displayed:**

8 rated powered axles - no restriction
10 rated powered axles - 1,000 amps
12 rated powered axles - 950 amps
14 rated powered axles - 900 amps
16 rated powered axles - 850 amps

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**Manned Helper Controlling Locomotive with Tractive Effort Displayed:**

Limit total tractive effort of AC consist to 100,000 lbs. Total AC locomotive consist tractive effort is determined by multiplying tractive effort indicated on display of controlling locomotive and multiplying by the total number of operative AC locomotives in the consist.

Example: A controlling unit of a two-unit AC locomotive consist should not be allowed to produce more than 50,000 lbs. of tractive effort.

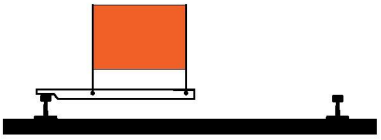
**48. Operations Testing**

BNSF will use the following banners as stop indications when operations testing for compliance where train, engine or on-track equipment movements are required to stop short of the items listed in operating rules GCOR 6.22 (excludes Banner #3), 6.27, 6.28 and MWOR 6.27, 6.28, 6.50:

1. A high visibility red/orange Stop/Obstruction banner displayed square on point to simulate on-track equipment.




2. A high visibility red/orange Stop banner, square or rectangular in shape and approximately 18 by 18 inches in size.



Banner 1 or 2 may be used on any track (main, controlled siding, yard, industry, etc.) for movements governed by GCOR/MWOR 6.27 Restricted Speed, GCOR/MWOR 6.28 Movement on Other Than Main Track, GCOR 6.22 Maintaining Control of Train or Engine (stopping 400 feet short of banners is applicable on a Main Track or controlled siding only), or MWOR 6.50 Movement of On-Track Equipment. These banners will be placed between the rails of the track, and simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banner.

3. Banner 3 may only be used on yard or industry tracks governed by GCOR/MWOR 6.28. Do not use on switches equipped with switch point indicators (GCOR 8.10) or sidings in TWC territory to simulate a switch or derail lined improperly.



High visibility red/orange with horizontal yellow bar Switch Point/Derail Location Stop banners, square or rectangular in shape and approximately 5 inches by 6 inches. These banners may only be used at existing switch point or derail locations, with one banner placed on each rail directly across from one another, to simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banners.

**49. Responsibilities and Certification**

**Engineers**

In the application of the following guidelines, the term "engineer" applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

Before beginning each shift or tour of duty, all engineers must ensure their CFR Part 240 certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before operating a locomotive.

**1. General Responsibilities**

Engineers are responsible for and must maintain their certification.

a. Engineers must be certified in the appropriate class of service to operate a locomotive.
b. Engineers must certify according to federal regulations (49 CFR Part 240) and BNSF Railway certification requirements and programs.
c. Engineers must have their CFR Part 240 electronic certificate accessible, displaying the correct class of service on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.
d. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Engineers must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.
e. Engineers and Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.

     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, engineer must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.
f. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.

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Changes must be reported when:

1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement
2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meets the minimum requirements without any corrective device.

The minimum hearing and vision requirements are:

1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels
2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Engineer Certification Requirements for Operating Locomotives**

Certified engineers may operate locomotives under the following conditions:

a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.

b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hostling purposes.

c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.

d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Before operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.

e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
Note: An RCO Operator must have a minimum of 30 tours of duty as a Certified Remote Control Operator before training a student.

f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed before October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

**3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment**

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency,
- Route familiarization, and
- Special or unique equipment.

**a. Skills Proficiency**

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception: The period is extended to 12 months for RCO if they are also certified as a train service engineer.

**b. Route Familiarization**

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six months:

Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions.

Train service engineers assigned to new routes or who become unqualified on current assigned routes are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or requalify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train service engineer to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and:

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1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

**4. Special Equipment Proficiency**

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment. A certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

**5. Route Familiarization Pilots**

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

a. Train Service Engineers:
   1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
   2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

b. Remote Control Operators:
   1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
   2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Conductors**

In the application of the following guidelines, the term"conductor" applies to a crew member in charge of a train or yard crew and passenger conductor who has received emergency preparedness training.

Before beginning each shift or tour of duty, all conductors must ensure their CFR Part 242 electronic certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before performing service as a conductor.

**1. General Responsibilities (applies to any person with certification as a Conductor)**

Any person certified as a Conductor is responsible for and must maintain their certification.

a. Conductors must certify according to federal regulations (49 CFR Part 242) and BNSF Railway certification requirements and programs.

b. Conductors must have their CFR Part 242 electronic certificate accessible on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.

c. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Conductors must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.

d. Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   • Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   • Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.
   Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, conductor must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.

e. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.
   Changes must be reported when:
   1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement.
   2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meet the minimum requirements without any corrective device.

   The minimum hearing and vision requirements are:
   1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels

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2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Maintaining Conductor Route Familiarization**

Certified employees must maintain proficiency as a conductor as it pertains to route familiarization.

**Route Familiarization**
Route familiarization is required in order to perform service as a certified conductor without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by local supervisor, route familiarization is maintained by observing the route biennially based on the calendar year when performing service in any capacity (engineer or trainman). If the route has not been observed once in a 24 month period, qualification will expire at the end of the calendar year. Other methods of maintaining route familiarization may also be available as specified by local supervisor.

Conductors assigned to new routes or who become unqualified on current assigned routes are required to contact their local supervisor who will advise the number of trips required to qualify or re-qualify on that route. If and when a conductor is qualified at the completion of these trips, a supervisor will then authorize the conductor to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does not include a section of main track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**3. Route Familiarization Pilots**

Employees will be assisted by a pilot if called to perform service as a conductor on a route lacking territory qualification:

a. When a conductor lacks Main Track territory qualification, the pilot must be a certified employee and meets the territory qualification requirements for the Main Track physical characteristics and is not an assigned member of the crew.
b. When a conductor was previously qualified on the Main Track, but qualifications have expired, the pilot can be an assigned member of the crew, other than the locomotive engineer who meets the territorial qualification requirement for Main Track physical characteristics.

If a conductor is called and lacks territorial qualification on other than Main Track and the assistance of a certified employee pilot is not practicable, the conductor must reference an appropriate job aid to satisfy this requirement.

**50. Rail Security Sensitive Material (RSSM) Instructions**

**Chain of Custody Documentation for Rail Security Sensitive Material**

When RSSM shipments in BNSF custody are set out enroute due to mechanical defect, the Resource Operations Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3, who will arrange for attendance. The PBX/MRAS radio system may be used for this communication.

Federal regulations require Chain of Custody documentation for Rail Security Sensitive Material (RSSM) in the cases described below.

Rail Security-Sensitive Material (RSSM) includes a shipment of one or more of the categories and quantities listed below:

1. Rail car containing more than 5,000 lbs (2,268 kg) of a Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous by inhalation, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation, and Division 6.1 liquids assigned to hazard zone A or hazard zone B.
3. Rail car containing a highway route-controlled Class 7 (radioactive) material.

These materials are identified with the Special Car Handling Code “RC”, Restricted Commodity , and /or “RSSM HAZMAT” in the starred box that identifies hazmat shipments.

Except at locations identified by Division General Order, employees must execute and document Positive Transfers of Custody any time a loaded rail car identified by SCHI code “RC” is:

1. Pulled from or spotted to an industry
2. Delivered or received in interchange

Employees can make a positive transfer of custody when:

1. Physically located on site in reasonable proximity to the rail car.
2. Capable of responding to unauthorized access or activity at or near the rail car, including immediately contacting law enforcement or other authorities.
3. They immediately respond to unauthorized access or activity at or near the rail car by contacting law enforcement or other authorities.

This requirement applies both to BNSF employees and representatives of shippers, consignees, and interchange carriers making positive transfers of custody. A positive transfer of custody can take place only if representatives of both companies are present.

When a representative of an interchange carrier is not available where required, “RC” shipments must not be delivered, but may be received if proper paperwork can be obtained per Hazardous Material Instructions Item II. Contact a supervisor for disposition of “RC” shipments when a representative is not available to accept delivery.

If an RSSM shipment is delivered by connecting carrier and left on the interchange transfer unattended, transfer of custody information must show connecting carrier employee’s name as “unattended”.

Any car identified an RSSM shipment will require “Chain of Custody” documentation. Empty “residue” cars will not be identified with this code.

BNSF employees must confer with the customer or interchange road representative to ensure both of their documentation records contain the same information. The chain of custody documentation must include the following:

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1. The first six digits of the employee's ID (e.g. b123456)
2. The date and time of the actual custody transfer.
3. The station at which the "RC" cars are transferred.
4. The person's first and last name to or from whom custody is being transferred.
5. The car initials and numbers.

Completing the chain of custody documentation:

1. TSS, TSS Xpress, or Mobile Train Reporting (MTR) are the preferred methods for documentation.
2. Utilize the Chain of Custody Form on the back of the GTB or work order when TSS, TSS Xpress, or MTR is not available due to work performed on line.
   a. When documenting a written chain of custody, employees must enter the information in TSS or TSS Xpress when access to a computer system becomes available.
   b. If a computer system is not available, utilize the FAX number at top of printed chain of custody form.
   c. Hours of service employees must complete the chain of custody documentation before expiring from duty under the hours of service.
   d. When documenting the chain of custody in printed form, employees must deliver the chain of custody documentation to a relief crew or supervisor for entry in to the system via TSS, TSS Xpress, or fax prior to the completion of the tour of duty when possible. This delivery must also be documented on the chain of custody form.
   e. When not possible to deliver the printed chain of custody documentation to a relief crew or supervisor prior to completion of the tour of duty, employees must enter the chain of custody documentation into the system via TSS, TSS Xpress, or fax when returning for next tour of duty.

Chain of custody procedures when receiving an "RC" freight car in interchange:

1. Loaded "RC" freight cars entering a yard from a foreign carrier must be recorded by the BNSF employee assuming responsibility to receive the "RC" car.
2. Employees should use the new TSS or TSS Xpress function "CUSTODY" to record the person's name from which custody is received along with the date and time of custody interchange. If an advance waybill list is not available, documentation must be done on printed format and entered into TSS or TSS Xpress when available.
3. Division Management will identify the point of contact for acceptance of interchange at each location.
4. A visual security inspection must take place with these cars when practical and must take place before departure from the interchange point. This is typically done during normal freight car safety inspections that are currently performed.

**Locations of High Threat Urban Area (HTUA)**

The following BNSF locations have been designated as HTUAs.

| | | |
|---|---|---|
| Anaheim | Kansas City | Riverside, CA |
| Bakersfield, CA | Los Angeles | San Antonio |
| Bay Area | Memphis | Sacramento |
| Chicago | New Orleans | San Diego |
| Dallas/Ft Worth | Oklahoma City | Seattle |
| Denver | Omaha | St Louis |
| El Paso | Phoenix | Tulsa |
| Houston | Portland | Twin Cities |

HTUA and associated boundaries will be identified by Division General Order.

**Attendance Requirements**

Shipments identified as "RSSM" must be attended at all times while inside an HTUA. RSSM shipments inside an HTUA are considered attended when:

- Located at an industry, when plant personnel have accepted chain of custody.
- Located in a yard which is staffed 24 hours per day.
  - Employees in the yard must be able to routinely view cars physically or by camera.
  - Employees designated as responsible for RSSM cars will be identified by Division General Order and must be able to respond to unauthorized access or activity by contacting law enforcement or other authorities.
- Located within a train with an on-duty crew, authorized employee or representative physically present.

Exceptions to above requirement will be identified by Division General Order.

Employees designated by Division General Order as responsible for location of RSSM cars inside HTUA are required to:

- Contact law enforcement or other authorities to report unauthorized access to RSSM cars.
- Know the placards and designations used to identify RSSM shipments.

Employees responsible for handling RSSM cars within the HTUA are required to:

- Know the contact information outlined by Division General Order for BNSF personnel who are responsible for location of cars within HTUA.
- Know the placards and designations used to identify RSSM shipments.

Note: BNSF Crews operating on foreign railroads must comply with these attendance requirements unless otherwise specified by the foreign railroad's instructions.

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**Appendix A - Track Flagging Examples**

The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by rule.

Yellow and yellow-red flags will be displayed on all main tracks and sidings leading to the track affected. Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In multiple Main Track territory, when a restriction is placed on a crossover, or in single Main Track territory when a restriction is placed on a turnout not affecting the Main Track, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

In situations in multiple Main Track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.

**Single Main Track**

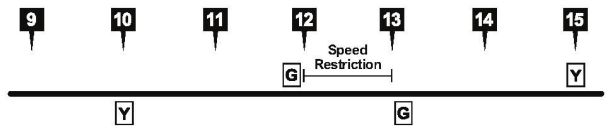



Diagram 1.

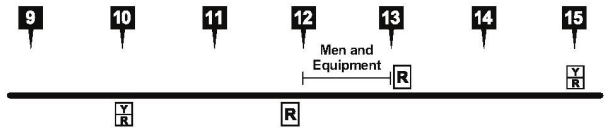



Diagram 2.

**Display of Green Flags with Overlapping Yellow Flags**

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

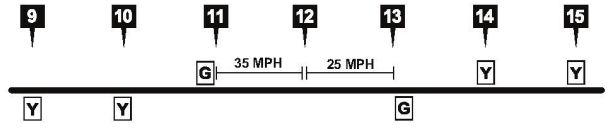



Diagram 3.

**Single Main Track (Sidings at the 2-mile point)**

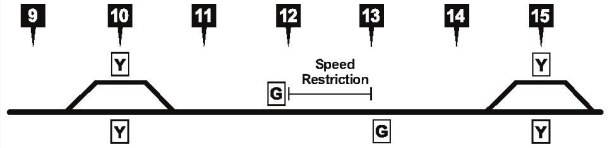



Diagram 4.

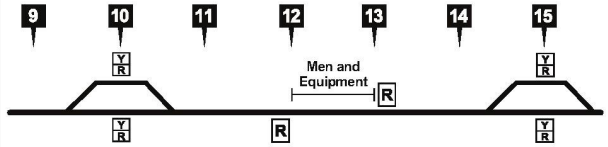



Diagram 5.

**Restriction on Siding**

Speed restrictions on sidings will be short flagged. Location of short flag must be indicated in track bulletin or track warrant.

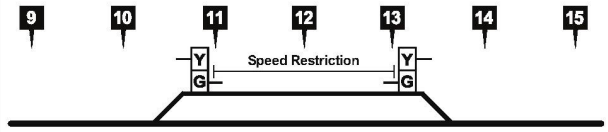



Diagram 6.

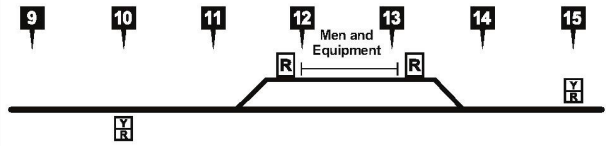



Diagram 7.

Train crews would determine the track affected by the information contained in their track bulletin.

**Speed Restriction on Main Track Where Siding is Adjacent**

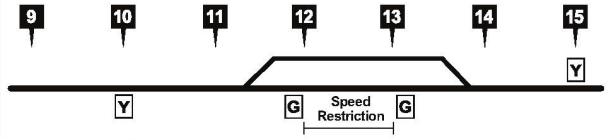



Diagram 8.

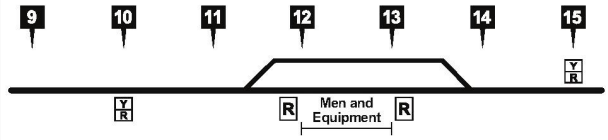



Diagram 9.

Train crews would determine the track affected by the information contained in their track bulletin.

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## Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance

Location of short flag must be indicated in track bulletin or track warrant.

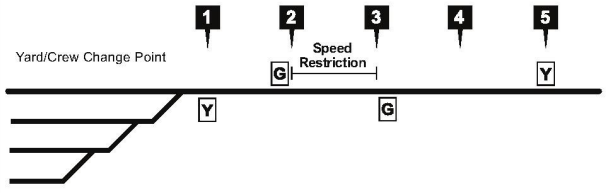



Diagram 10.

## When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

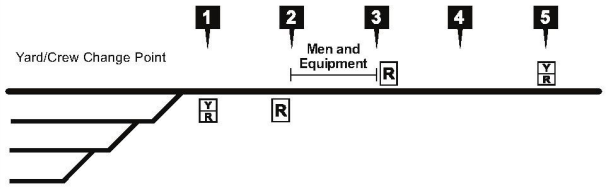



Diagram 11.

## Speed Restriction at Foreign Line Junction

Location of short flag must be indicated in track bulletin or track warrant.

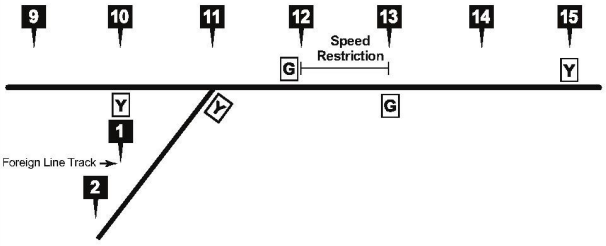



Diagram 12.

## Foreign Line junction Near Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

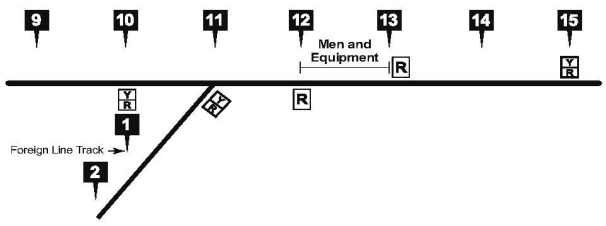



Diagram 13.

## Speed Restriction at BNSF Junction

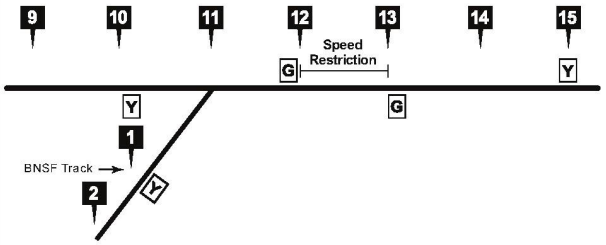



Diagram 14.

## BNSF Junction Near Men and Equipment

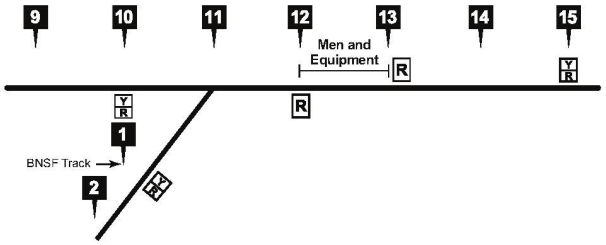



Diagram 15.

## Men and Equipment with Junction and Intervening Switch

Red flags at the limits of Form B and Main Track junctions within the limits.

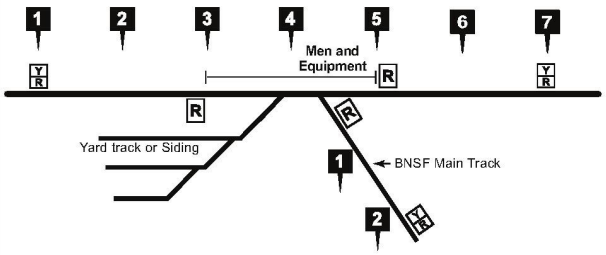



Diagram 16.

TOC Home

## Speed Restriction Just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

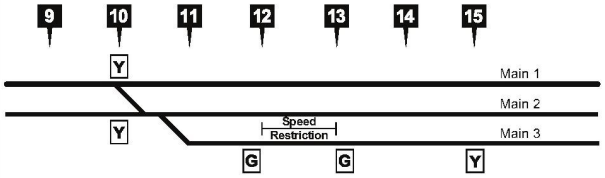



Diagram 17.

## Men and Equipment just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

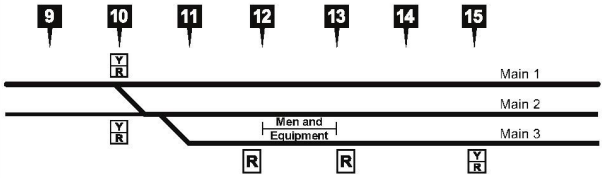



Diagram 18.

## Speed Restriction Just Beyond Turnout to Main 1

Train crews would determine the track affected by the information contained in their track bulletin.

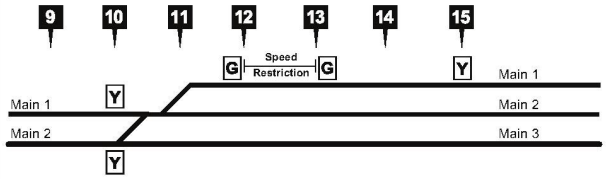



Diagram 19.

## Men and Equipment Just Beyond Turnout to Main 1

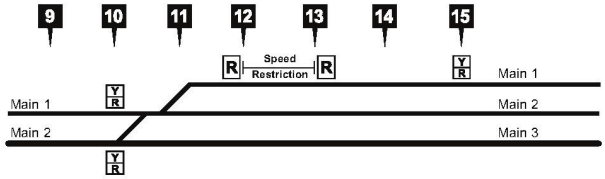



Diagram 20.

## Speed Restriction on Multiple Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

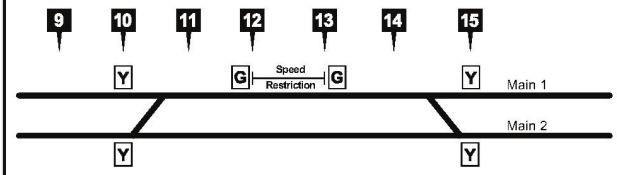



Diagram 21.

## Men and Equipment on Multiple Main Track

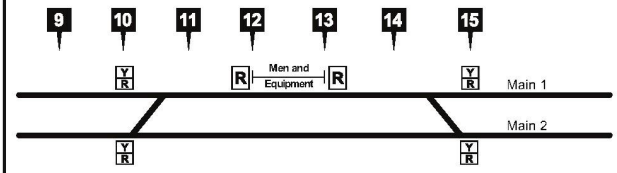



Diagram 22.

## Speed Restriction on Main 1 (CTC Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.

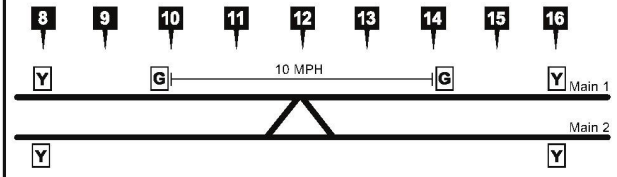



Diagram 23.

## Speed Restriction on Main 1 (CTC and ABS Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.

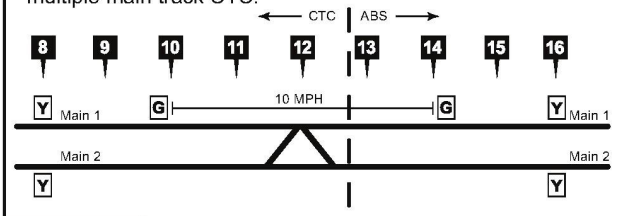



Diagram 24.

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.

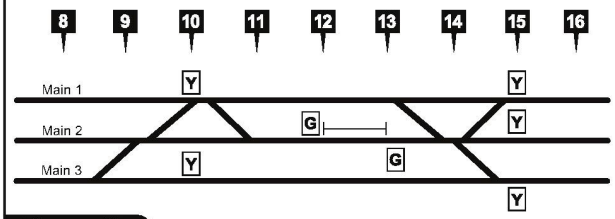



Diagram 25.

**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**

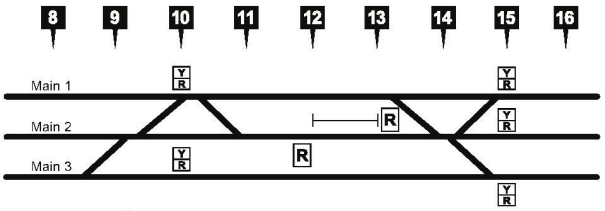
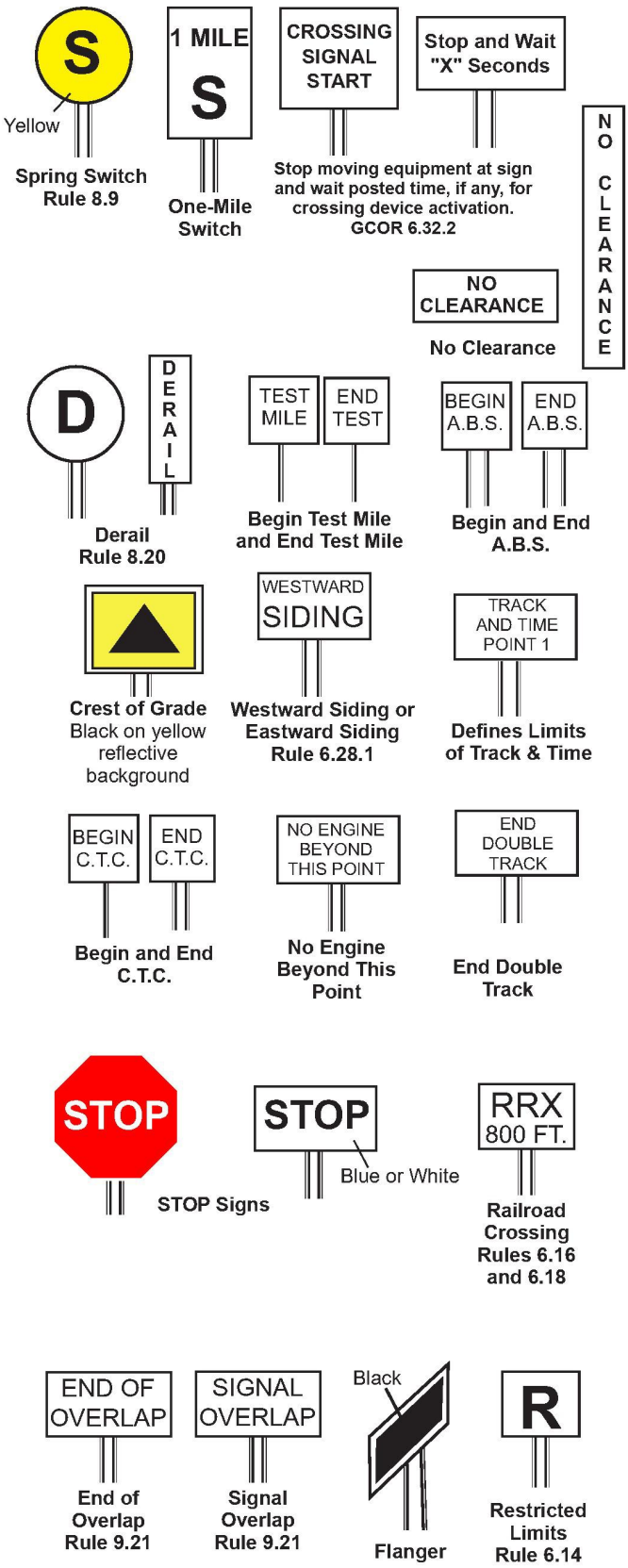
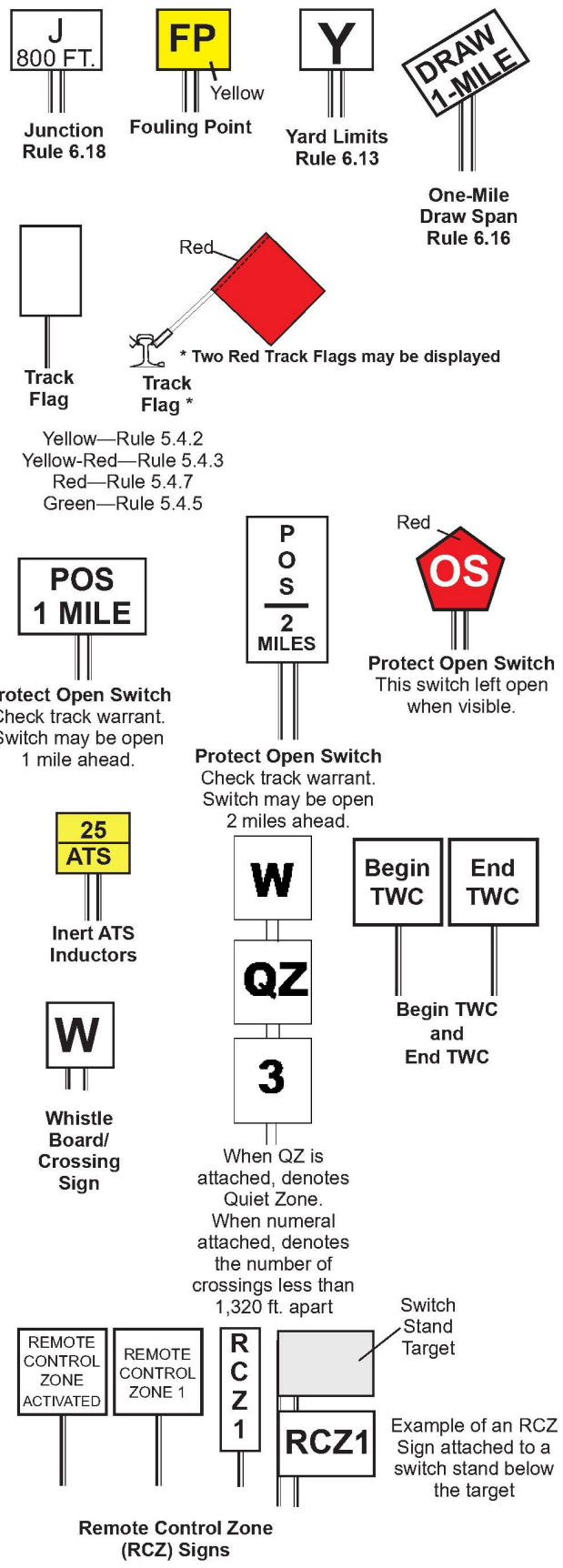



Diagram 26.

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Appendix B - Roadway Signs



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**Appendix C - Division/Subdivision Index**

| Division | Subdivisions |
|---|---|
| California | Alameda Corridor |
| | Bakersfield |
| | Cajon |
| | Harbor |
| | Lucerne Valley |
| | Mojave |
| | Needles |
| | San Bernardino |
| | San Diego |
| | Stockton |
| Chicago | Aurora |
| | Barstow |
| | Beardstown |
| | Brookfield |
| | Chicago |
| | Chillicothe |
| | Des Moines |
| | Marceline |
| | Mendota |
| | Ottumwa |
| | Peoria |
| | St. Croix |
| | Thomas Hill |
| | Yates City |
| Heartland | Afton |
| | Amory |
| | Bayard |
| | Bellwod |
| | Birmingham |
| | Cherokee |
| | Council Bluffs |
| | Creston |
| | Cuba |
| | Fort Scott |
| | Giltner |
| | Hannibal |
| | Napier |
| | Omaha |
| | Ravenna |
| | River |
| | St. Joseph |
| | Thayer North |
| | Thayer South |
| Kansas | Arkansas City |
| | Boise City |
| | Dalhart |
| | Douglass |
| | Emporia |
| | Hereford |
| | La Junta |
| | Panhandle |
| | Raton |
| | Strong City |
| | Topeka |
| | Twin Peaks |
| Montana | Big Sandy |
| | Broadview |
| | Choteau |
| | Circle |
| | Colstrip |
| | Copper City |
| | Crosby |
| | Dickinson |
| | Fairfield |
| Montana (cont'd) | Forsyth |
| | Ft. Benton |
| | Glasgow |
| | Great Falls |
| | Grenora |
| | Helena |
| | Hettinger |
| | Hi Line |
| | Kootenai River |
| | Laurel |
| | Lewistown |
| | Milk River |
| | Mobridge |
| | Niobe |
| | Sarpy Line |
| | Scobey |
| | Sidney Line |
| | Sweet Grass |
| | Valier |
| Northwest | Bellingham |
| | Cherry Point |
| | Coeur d'Alene |
| | Columbia River |
| | Fallbridge |
| | Gateway |
| | Kettle Falls |
| | Lakeside |
| | New Westminster |
| | Oregon Trunk |
| | Scenic |
| | Seattle |
| | Spokane |
| | Stampede |
| | Sumas |
| | Yakima Valley |
| Powder River | Akron |
| | Angora |
| | Beatrice |
| | Big Horn |
| | Black Hills |
| | Brush |
| | Butte |
| | Campbell |
| | Canyon |
| | Casper |
| | Cody |
| | Dutch |
| | Front Range |
| | Golden |
| | Hastings |
| | Lester |
| | Orin |
| | Pikes Peak |
| | Pueblo |
| | Sand Hills |
| | Spanish Peaks |
| | Valley |
| | Wymore |
| Red River | Avard |
| | Bay City |
| | BBRX |
| | Chickasha |
| | Conroe |
| | Creek |
| | DFW |
| | Ft. Worth |
| | Galveston |
| Red River (cont'd) | Houston |
| | Lafayette |
| | Lampasas |
| | Longview |
| | Madill |
| | Mykawa |
| | Plainview |
| | Red River Valley |
| | Red Rock |
| | Silsbee |
| | Slaton |
| | Sooner |
| | Venus |
| | Wichita Falls |
| Southwest | Carlsbad |
| | Clovis |
| | Coronado |
| | Defiance |
| | El Paso |
| | Gallup |
| | Glorieta |
| | Lee Ranch |
| | Mines |
| | Phoenix |
| | Seligman |
| | Springerville |
| Twin Cities | Aberdeen |
| | Allouez |
| | Appleton |
| | Brainerd |
| | Browns Valley |
| | Canton |
| | Casco |
| | Corson |
| | Devils Lake |
| | Drayton |
| | Glasston |
| | Grand Forks |
| | Hanley Falls |
| | Hannah |
| | Hib Tac |
| | Hillsboro |
| | Hinckley |
| | Jamestown |
| | KO |
| | Lakes |
| | Madison |
| | Marshall |
| | Mayville |
| | Midway |
| | Mitchell |
| | Monticello |
| | Moorhead |
| | Morris |
| | Noyes |
| | O'Neill |
| | Prosper |
| | Rolla |
| | St. Paul |
| | Sioux City |
| | Staples |
| | Warwick |
| | Watertown |
| | Wayzata |
| | Westhope |
| | Zap Line |

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**Subdivision Index**

| Subdivision | Division |
|---|---|
| Aberdeen | Twin Cities |
| Afton | Heartland |
| Akron | Powder River |
| Alameda Corridor | California |
| Allouez | Twin Cities |
| Amory | Heartland |
| Angora | Powder River |
| Appleton | Twin Cities |
| Arkansas City | Kansas |
| Aurora | Chicago |
| Avard | Red River |
| Bakersfield | California |
| Barstow | Chicago |
| Bay City | Red River |
| Bayard | Heartland |
| BBRX | Red River |
| Beardstown | Chicago |
| Beatrice | Powder River |
| Bellingham | Northwest |
| Bellwood | Heartland |
| Big Horn | Powder River |
| Big Sandy | Montana |
| Birmingham | Heartland |
| Black Hills | Powder River |
| Boise City | Kansas |
| Brainerd | Twin Cities |
| Broadview | Montana |
| Brookfield | Chicago |
| Browns Valley | Twin Cities |
| Brush | Powder River |
| Butte | Powder River |
| Cajon | California |
| Campbell | Powder River |
| Canton | Twin Cities |
| Canyon | Powder River |
| Carlsbad | Southwest |
| Casco | Twin Cities |
| Casper | Powder River |
| Cherokee | Heartland |
| Cherry Point | Northwest |
| Chicago | Chicago |
| Chickasha | Red River |
| Chillicothe | Chicago |
| Choteau | Montana |
| Circle | Montana |
| Clovis | Southwest |
| Cody | Powder River |
| Coeur d'Alene | Northwest |
| Colstrip | Montana |
| Columbia River | Northwest |
| Conroe | Red River |
| Copper City | Montana |
| Coronado | Southwest |
| Corson | Twin Cities |
| Council Bluffs | Heartland |
| Creek | Red River |
| Creston | Heartland |
| Crosby | Montana |
| Cuba | Heartland |
| Dalhart | Kansas |
| Defiance | Southwest |
| Des Moines | Chicago |
| Devils Lake | Twin Cities |
| DFW | Red River |
| Dickinson | Montana |
| Douglass | Kansas |
| Drayton | Twin Cities |
| Dutch | Powder River |
| El Paso | Southwest |
| Emporia | Kansas |
| Fallbridge | Northwest |
| Fairfield | Montana |
| Forsyth | Montana |
| Fort Scott | Heartland |
| Front Range | Powder River |
| Ft. Benton | Montana |
| Ft. Worth | Red River |
| Gallup | Southwest |
| Galveston | Red River |
| Gateway | Northwest |
| Giltner | Heartland |
| Glasgow | Montana |
| Glasston | Twin Cities |
| Glorieta | Southwest |
| Golden | Powder River |
| Grand Forks | Twin Cities |
| Great Falls | Montana |
| Grenora | Montana |
| Hanley Falls | Twin Cities |
| Hannah | Twin Cities |
| Hannibal | Heartland |
| Harbor | California |
| Hastings | Powder River |
| Helena | Montana |
| Hereford | Kansas |
| Hettinger | Montana |
| Hi Line | Montana |
| Hib Tac | Twin Cities |
| Hillsboro | Twin Cities |
| Hinckley | Twin Cities |
| Houston | Red River |
| Jamestown | Twin Cities |
| Kettle Falls | Northwest |
| KO | Twin Cities |
| Kootenai River | Montana |
| La Junta | Kansas |
| Lafayette | Red River |
| Lakes | Twin Cities |
| Lakeside | Northwest |
| Lampasas | Red River |
| Laurel | Montana |
| Lee Ranch | Southwest |
| Lester | Powder River |
| Lewistown | Montana |
| Longview | Red River |
| Lucerne Valley | California |
| Madill | Red River |
| Madison | Twin Cities |
| Marceline | Chicago |
| Marshall | Twin Cities |
| Mayville | Twin Cities |
| Mendota | Chicago |
| Midway | Twin Cities |
| Milk River | Montana |
| Mines | Southwest |
| Mitchell | Twin Cities |
| Mobridge | Montana |
| Mojave | California |
| Monticello | Twin Cities |
| Moorhead | Twin Cities |
| Morris | Twin Cities |
| Mykawa | Red River |
| Napier | Heartland |
| Needles | California |
| New Westminster | Northwest |
| Niobe | Montana |
| Noyes | Twin Cities |
| Omaha | Heartland |
| O'Neill | Twin Cities |
| Oregon Trunk | Northwest |
| Orin | Powder River |
| Ottumwa | Chicago |
| Panhandle | Kansas |
| Peoria | Chicago |
| Phoenix | Southwest |
| Pikes Peak | Powder River |
| Plainview | Red River |
| Prosper | Twin Cities |
| Pueblo | Powder River |
| Raton | Kansas |
| Ravenna | Heartland |
| Red River Valley | Red River |
| Red Rock | Red River |
| River | Heartland |
| Rolla | Twin Cities |
| San Bernardino | California |
| San Diego | California |
| Sand Hills | Powder River |
| Sarpy Line | Montana |
| Scenic | Northwest |
| Scobey | Montana |
| Seattle | Northwest |
| Seligman | Southwest |
| Sidney Line | Montana |
| Silsbee | Red River |
| Sioux City | Twin Cities |
| Slaton | Red River |
| Sooner | Red River |
| Spanish Peaks | Powder River |
| Spokane | Northwest |
| Springerville | Southwest |
| St. Croix | Chicago |
| St. Joseph | Heartland |
| St. Paul | Twin Cities |
| Stampede | Northwest |
| Staples | Twin Cities |
| Stockton | California |
| Strong City | Kansas |
| Sumas | Northwest |
| Sweet Grass | Montana |
| Thayer North | Heartland |
| Thayer South | Heartland |
| Thomas Hill | Chicago |
| Topeka | Kansas |
| Twin Peaks | Kansas |
| Valier | Montana |
| Valley | Powder River |
| Venus | Red River |
| Warwick | Twin Cities |
| Watertown | Twin Cities |
| Wayzata | Twin Cities |
| Westhope | Twin Cities |
| Wichita Falls | Red River |
| Wymore | Powder River |
| Yakima Valley | Northwest |
| Yates City | Chicago |
| Zap Line | Twin Cities |

# Reference Information

**Speed Tables**

| SPEED TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour |
| Min. | Sec. | | Min. | Sec. | | Min. | Sec. | |
| - | 36 | 100 | - | 58 | 62.1 | 1 | 40 | 36.0 |
| - | 37 | 97.3 | - | 59 | 61.0 | 1 | 42 | 35.3 |
| - | 38 | 94.7 | 1 | - | 60.0 | 1 | 44 | 34.6 |
| - | 39 | 92.3 | 1 | 02 | 58.0 | 1 | 46 | 34.0 |
| - | 40 | 90.0 | 1 | 04 | 56.2 | 1 | 48 | 33.3 |
| - | 41 | 87.8 | 1 | 06 | 54.5 | 1 | 50 | 32.7 |
| - | 42 | 85.7 | 1 | 08 | 52.9 | 1 | 52 | 32.1 |
| - | 43 | 83.7 | 1 | 10 | 51.4 | 1 | 54 | 31.6 |
| - | 44 | 81.8 | 1 | 12 | 50.0 | 1 | 56 | 31.0 |
| - | 45 | 80.0 | 1 | 14 | 48.6 | 1 | 58 | 30.5 |
| - | 46 | 78.3 | 1 | 16 | 47.4 | 2 | - | 30.0 |
| - | 47 | 76.6 | 1 | 18 | 46.1 | 2 | 05 | 28.8 |
| - | 48 | 75.0 | 1 | 20 | 45.0 | 2 | 10 | 27.7 |
| - | 49 | 73.5 | 1 | 22 | 43.9 | 2 | 15 | 26.7 |
| - | 50 | 72.0 | 1 | 24 | 42.9 | 2 | 30 | 24.0 |
| - | 51 | 70.6 | 1 | 26 | 41.9 | 2 | 45 | 21.8 |
| - | 52 | 69.2 | 1 | 28 | 40.9 | 3 | - | 20.0 |
| - | 53 | 67.9 | 1 | 30 | 40.0 | 3 | 30 | 17.1 |
| - | 54 | 66.6 | 1 | 32 | 39.1 | 4 | - | 15.0 |
| - | 55 | 65.5 | 1 | 34 | 38.3 | 5 | - | 12.0 |
| - | 56 | 64.2 | 1 | 36 | 37.5 | 6 | - | 10.0 |
| - | 57 | 63.2 | 1 | 38 | 36.8 | 12 | - | 5.0 |

| FEET | TENTHS OF A MILE |
|---|---|
| 528 | .1 |
| 1,056 | .2 |
| 1,584 | .3 |
| 2,112 | .4 |
| 2,640 | .5 |
| 3,168 | .6 |
| 3,696 | .7 |
| 4,224 | .8 |
| 4,752 | .9 |

## TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

To assist in determinig where to start sounding the whistle as described in Whistle Signal 7, use the following:
At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

| Train Speed | Delay to Sound Whistle |
|---|---|
| 40 MPH | 3 seconds |
| 35 MPH | 6 seconds |
| 30 MPH | 10 seconds |
| 25 MPH | 16 seconds |
| 20 MPH | 25 seconds |
| 15 MPH | 40 seconds |
| 10 MPH | 1 minute 10 seconds |

## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

This version contains the following updated pages:
**August 4, 2021:** 14, 23, 50.
**September 1, 2021:** 44.
**October 1, 2021:** 54, 55, 56, 57.
**November 4, 2021:** 10.
**November 11, 2021:** Title page, 53.

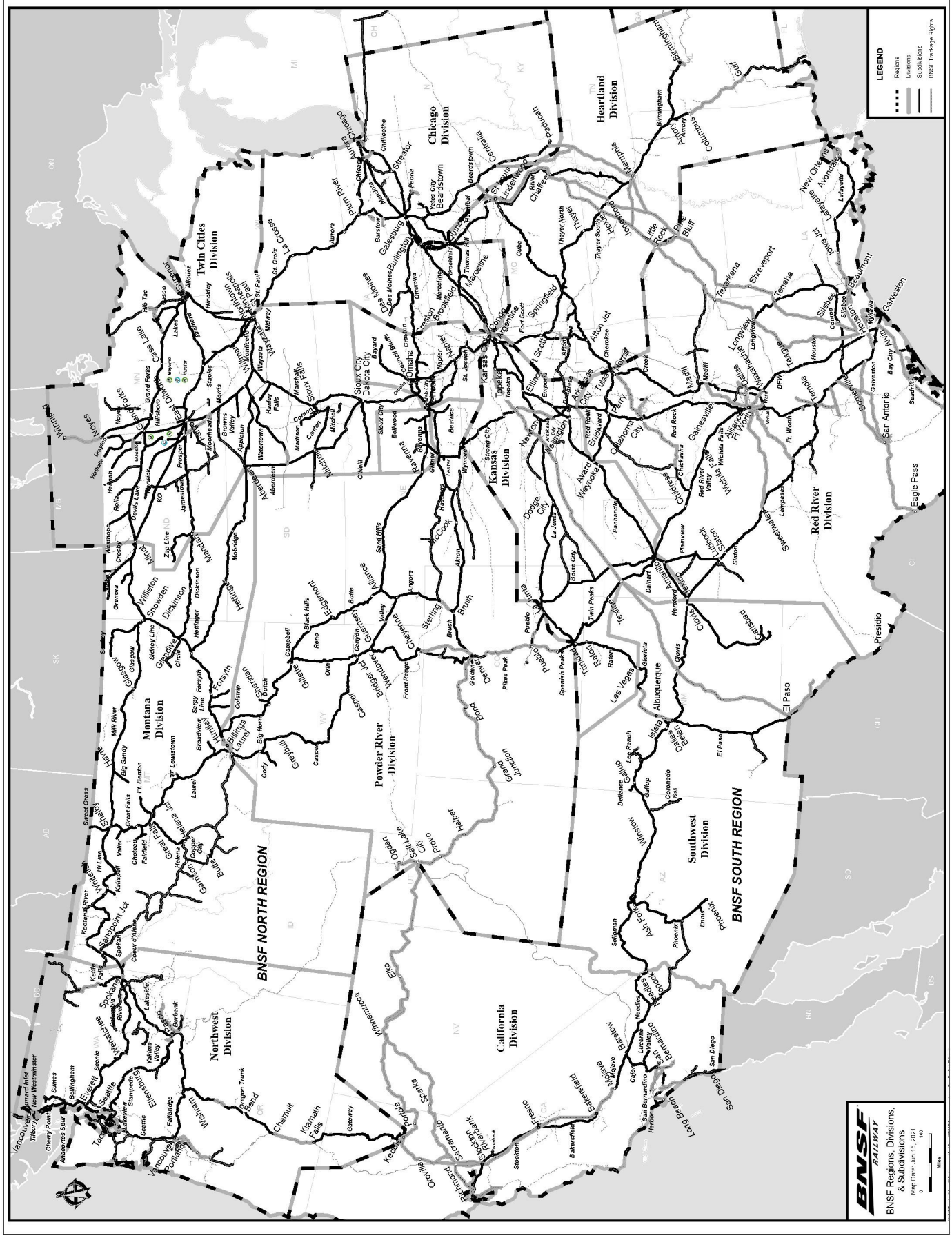
BNSF RAILWAY

# System Special Instructions

## All Subdivisions No. 2

In Effect at 0800
Central, Mountain and Pacific
Continental Time
**August 4, 2021**
(Including updates through
November 11, 2021)

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LEGEND
Regions
Divisions
Subdivisions
BNSF Trackage Rights
BNSF NORTH REGION
BNSF SOUTH REGION
Northwest Division
Montana Division
Twin Cities Division
Chicago Division
Powder River Division
Kansas Division
Heartland Division
Red River Division
Southwest Division
California Division
BNSF RAILWAY
BNSF Regions, Divisions, & Subdivisions
Map Date: Jun 15, 2021
Miles

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In timetable individual subdivision special instructions, the number at the bottom of the station table column entitled "Miles to Next Station" denotes total miles on the subdivision.

## 1. Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars. Refer to 1(B) regarding maximum authorized speed of engines (locomotives).

Amtrak trains operating in Cascade service may observe Talgo speeds. The consist must be entirely Horizon and/ or Amfleet Single Level Passenger Equipment. If the PTC Onboard Consist does not reflect the correct train type, crews may modify their consist to "Tilt" Train Type.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

| | MPH |
|---|---|
| Freight trains under 100 TOB | 60 |
| Freight trains 100 TOB and over | 45 |
| Freight trains handling empty cars | 55 |
| Exception: Intermodal Equipment, see SSI 1(C) | |
| Empty coal trains (if train list indicates no speed restricted equipment) | 60 |
| Key trains | 50 |
| Solid consist of military equipment | 55 |
| Trains with welded rail loaded in open end gondolas | 45 |
| Non-signaled territory | 49 |
| Against the current of traffic | 49 |
| Through turnouts | 10 |
| Tracks governed by GCOR / MWOR 6.28 | 10 |
| Tracks governed by GCOR / MWOR 6.28 where timetable indicates a speed greater than 20 MPH | 20 HER |
| Within Mechanical Department limits | 5 |
| Movements on or off turntables and droptables | 1 |

Foreign railroad locomotives - Speed restrictions posted inside the locomotive cab of foreign railroad locomotives which are less than that listed above only apply when locomotive is utilized as a lead, controlling locomotive.

| Equipment | Main | Branch |
|---|---|---|
| Side dump ballast cars, BNSF car kind YHA and YHH, loaded | 45 | 45 |
| AMTK 1400-1569 (material handling cars) | 60 | 60 |
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 | 45 | 45 |
| Boeing cars, loaded, BNSF 800100-800135, MTTX 978384, 978576, 978596, 978644, 978649, 978660, 978781, 979162, 980855, 981187, 981218 | 45 | 45 |
| Clay cars, RARW 3801-4199 | 45 | 45 |
| Flatcars, empty, NP 580400-580739 | 50 | 50 |
| Flatcars, empty, bulkhead wallboard: BN 616475-616674, CS 616375-616474 DJTX 9300-9398, SOU 115250-115274 | 45 | 45 |
| Flatcars, empty, bulkhead, Picked up enroute and not on conductor's wheel report or work order | 45 | 45 |
| Flatcars, empty or loaded, OTTX 93561, 97852, 97861, 97914, 97920 | 45 | 45 |
| Flatcars, loaded with track panels, ATSF 190298, 209144, 209149 | 35 | 35 |
| Gondolas, empty, KCS 801011-802930, CR 576026-579245 | 45 | 45 |
| Gondolas, empty, Picked up enroute and not on conductor's wheel report or work order | 50 | 50 |
| Gondolas, empty or loaded, PC 598500-598999 CR 598500-598990, SP 345000-345699 | 45 | 45 |
| Herzog clip cars, HZGX 153, 154, 155 | 50 | 50 |
| Herzog MPM Machines, designated to be placed next ahead of caboose or at rear of cabooseless trains. | 55 | 55 |
| Hopper cars, covered, empty, (unless no speed restriction is indicated by train documentation) ASGX 1-50, BCAX 50-149, CGLX 4200-4249, CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904, CRDX 20100-20199, CRDX 20200-20209, CRDX 20300-20324, CRDX 20525-20724, CSXT 242000-242299, DME 29000-29324, DJLX 97300-97319, FLOX 3200-3241, FLOX 983400-983414, GACX 3000-3139, GACX 3150-3196, GACX 3202-3359, GACX 3486-3510, GACX 7959-8008, GCCX 55000-55099, LCEX 801-820, LCEX 824-898, NAHX 21000-21054, NAHX 29700-29867, NAHX 320000-320399, NCUX 20001-20050, NCUX 20106-20130, NRLX 32500-32605, NRLX 32706-32725, NVCX 9500-9619, NS 294220-294319, RGCX 650-899, RGCX 902-1067, RGCX 1069-1142, RGCX 1183-1222, SDWX 9700-9919, SDWX 10000-10333, SDWX 11000, SHPX 432118-432137, SHPX 432057-432116, WW 7001-7300 | 45 | 45 |
| Hopper cars, empty, WFAX 84654-84700 TUGX 36001-36125 | 45 | 45 |

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| Equipment | Main | Branch |
|---|---|---|
| Loram, 400 and 300 series and Harsco rail grinder, traveling (not in work mode) as a train on its own power with a conductor or engineer pilot | 50 | 50 |
| Loram, 400 series and Harsco rail grinder, when controlling movement from the rear control cab in the lead. | 50 | 50 |
| Loram, 300 series rail grinder, when controlling movement from rear control cab in the lead | 40 | 40 |
| Refer to manufacturer's maximum operating speeds when operating on descending grades. | | |
| Loram, LMIX 409, 410, 412, 414, 415, 417, KMUX 110, 750<br>Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars.<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 50 | 45 |
| Loram, LMIX 203, 204<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 55 | 55 |
| Ore cars, empty, 35 ft., OLB 1000-1099 | 50 | 50 |
| Ore cars, loaded, 35 ft., OLB 1000-1099 | 45 | 45 |
| P811, BNSF 922999 | 50 | 50 |
| Plasser machines,PACX 293, 2630, 2645, 3024,4656, 4657, 4774, 4775 | 45 | 45 |
| Plasser THS 2000, tie gang consist | 30 | 30 |
| Plasser 08 & 09 Tampers, PTS 61, 62 & 90 Stabilizers, BDS 100 & 200 Ballast machines, MFS40 & 60 cars and ULS3000 conveyor cars (traveling in a train or under own power with a conductor or engineer pilot) | 50 | 50 |
| Ribbon rail cars, empty | 45 | 45 |
| Ribbon rail cars, loaded | 35 | 25 |
| Ribbon rail loading and unloading cars | 45 | 45 |
| Roadrailer equipment (empty or loaded) | 60 | 60 |
| Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader handled in trains | 30 | 25 |
| Exception: Locomotive cranes/pile drivers with booms removed and secured to a leads car with the counterweight properly secured to the locomotive crane/pile drive car body, billed as empty car. | 45 | 25 |
| Exception: Jordan spreader, BNSF 939800 - 939804 | 50 | 50 |
| Trains and engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.<br>Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by roadmaster or covered by specific instructions. | | |

| Equipment | Main | Branch |
|---|---|---|
| Scale test cars<br>Exception: cars listed below have a minimum gross weight of 100,000 lbs. and may move in any position in the train and at maximum authorized speed for which the train is qualified. BN 979020-979024, BN 979026, BNSF 979019, FGWX 100000-700000, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, WWBX 199917-199919 | 35 | 25 |
| Schnabel type cars, empty. Cars must be handled on or near the rear of trains not exceeding 100 cars in length, must not be handled in trains requiring pusher service and must not be humped or switched with motive power detached | 45 | 45 |
| Exception: GEGX 21154, GEGX 21155, GEX 80000, GEX 80002, MAMX 1001 | 40 | 40 |
| Exception: KRL 3600, KRL 3601, GEX 80003, HEPX 200, PTDX 202 | 25 | 25 |
| Tank cars, ACFX 17451-17495, NATX 10841-10865 | 45 | 45 |
| Tank cars, DVLX 4001-4190, UTLX 76517, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736-76738, 76742-76745, 76747, 76748, 76750, 76751, 78256-78269, 78272, 78274, 78278, 78281, 78285, 78287-78293, 78326, 78328-78333, 78336-78340, 78343, 78344, 78347, 78348, 78350. 78353 | 40 | 40 |
| Tank cars, empty, CORX | 50 | 50 |
| Tank cars, loaded, CELX 6400-6455, 10400-10443 (must not be handled nearer than 6 cars from locomotive when loaded) | 45 | 45 |
| Wedge plow or dozer, hauled in tow | 35 | 25 |

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH and 21 MPH can cause derailments due to harmonic rocking of cars. Where specified by timetable individual subdivision special instructions or general order, the following restrictions apply when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains consisting entirely of empty equipment, which cannot maintain a minimum speed of 21 MPH, must reduce speed to 13 MPH or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Passenger Trains/Engines**

| | MPH |
|---|---|
| Amtrak | 90* |
| Metrolink | 90* |
| Metra | 79* |
| Sounder (Sound Transit) | 79* |
| Northstar | 79* |
| All other classes | 70 |

Exception:
When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, maximum speed is 45 MPH.

* Engine without cars must not exceed 70 MPH.

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**1(C). Multiplatform Equipment**

**Intermodal Equipment**

| TSS Car Kind Codes | Car Description | Units or Segments | Axle Count | Control Valves and/or Car Count | Trailers=T Containers=C Either=T/C |
|---|---|---|---|---|---|
| Articulated cars | | | | | |
| QY | Doublestack | 5 | 12 | 3 | C |
| QV | Doublestack | 3 | 8 | 2 | T/C |
| QM | Spine Car | 3 | 8 | 2 | T/C |
| QC | Spine Car | 3 | 8 | 2 | T |
| QO | Spine Car | 5 | 12 | 3 | T/C |
| Q5 | Spine Car | 5 | 12 | 3 | C |
| QE | Spine Car | 5 | 12 | 3 | T |
| FM | Twin Flat | 2 | 6 | 2 | C |
| M2D M3D M2F M3F | Automax | 2 | 6 | 2 | |
| Non-Articulated Cars | | | | | |
| QW | Doublestack | 3 | 12 | 3 | T/C |
| QX | Doublestack | 4 | 16 | 4 | T/C |
| QT | Doublestack | 5 | 20 | 5 | C |
| QB QD | Twin Flats | 2 | 8 | 2 | T |
| QL | Twin Flats | 2 | 8 | 2 | T/C |
| Single Unit Intermodal Cars | | | | | |
| QU | Doublestack | 1 | 4 | 1 | T/C |
| QK | Doublestack | 1 | 4 | 1 | T/C |

**Car Kind Codes for Intermodal Equipment**

In addition to the intermodal equipment listed above, all car kind codes beginning with the letter M, P or Q are considered intermodal equipment. On cars shown above, only the first two characters are required to identify car type, with the exception of those identifying Automax cars. However, train lists may use more than two characters to identify a given car type.

**Definitions of Multiple-Unit Equipment**

*Articulated*—Refers to cars with multiple units (segments) that are connected with articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**

Tons per operative brake on cars above is determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.

(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.

(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**

In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Cabooses and any car loaded with container chassis are considered loads for the purpose of the rule.

Exception: Intermodal equipment with empty units/platforms are restricted to 55 MPH only if not equipped with constant contact side bearings (CCSB). BNSF train documentation now provides guidance on this empty unit restriction as it applies to the intermodal cars listed above. When handling all intermodal equipment, train documentation will provide one of three messages as follows:

1. Train does not contain any intermodal equipment with empty units without CCSB.
2. Train is restricted to 55 MPH due to intermodal equipment with empty units without CCSB.
3. Train may be restricted to 55 MPH due to possibility of intermodal equipment having empty units without CCSB - Inspect to Verify.

In the event message 3 above is on train documentation, if train is otherwise authorized to exceed 55 MPH, a visual inspection must be made to determine the loaded status of units/platforms on car(s) listed. The inspection results must be noted on train list for relieving crews' guidance on train's maximum authorized speed.

When adding intermodal equipment enroute, train documentation may not have been generated. When this occurs, consider such car(s) to be restricted to 55 MPH if any units/platforms are empty. Subsequent train lists produced for crews after a pick up enroute will provide speed information on cars based on if CCSB-equipped.

This does not apply to trains that are otherwise restricted to 55 MPH or less such as when handling cars not listed above that are empty, other equipment speed restrictions, fuel conservation speed limits, etc.

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

Cajon Sub..... MP 56.6 to MP 80, all tracks
Raton Sub ..... MP 639 to MP 660
Glorieta Sub ..... MP 775 to MP 810
Glorieta Sub ..... MP 818 to MP 842
Pikes Peak Sub ..... MP 52 to MP 66
Hi Line Sub..... MP 1151 to MP 1166, both tracks
Midway Sub..... MP 0.5 to MP 2, both tracks
Phoenix Sub ..... MP 381.0 to MP 402.0
St. Paul Sub ..... MP 430 to MP 5, both tracks
Scenic Sub ..... MP 1694.5 to MP 1731.3
Stampede Sub..... MP 41.0 to MP 58.5
San Diego Sub ..... MP 250 to MP 255 (NCTC)
Gateway Sub..... MP 178.0 to MP 188.0

**On UP Railroad:**

Mojave Sub ..... MP 331.3 to MP 381.3
Moffat Tunnel Sub ..... MP 19 to MP 50
Moffat Tunnel Sub ..... MP 58.1 to MP 61.7
Provo Sub..... MP 630.5 to MP 638.1
Provo Sub..... MP 652 to MP 682
Roseville Sub ..... MP 115 to MP 170
Roseville Sub ..... MP 195 to MP 210

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## 2(B). Locomotive Data Tables

| DC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| SW1 | 4 | 0 | 600 | 99 |
| SW10 | 4 | 0 | 1,000 | 125 |
| NW10 | 4 | 0 | 1,200 | 126 |
| SW12 | 4 | 0 | 1,200 | 125 |
| SW15 | 4 | 0 | 1,500 | 131 |
| MK1200G | 4 | 0 | 1,200 | 125 |
| SWBL-W | 4 | 0 | 1,500 | 131 |
| GP7 | 4 | 0 | 1,500 | 125 |
| GP9 | 4 | 4* | 1,750 | 130 |
| GP9B | 4 | 0 | 1,750 | 124 |
| GP10 | 4 | 0 | 1,800 | 130 |
| GP15, GP15-1 | 4 | 0 | 1,500 | 129 |
| GP18 | 4 | 0 | 1,800 | 124 |
| GP20 | 4 | 4BT | 2,000 | 131 |
| GP28 M/P | 4 | 4BF | 1,800 | 130 |
| GP30 | 4 | 4BT | 2,500 | 131 |
| GP35 | 4 | 4BT | 2,500 | 133 |
| GP38,GP38-2 | 4 | 4ET | 2,000 | 143 |
| GP39, GP39-2 | 4 | 4EF# | 2,300 | 135 |
| GP40 M,E,-2 | 4 | 4BF | 3,000 | 139 |
| GP40X | 4 | 4BF | 3,000 | 139 |
| GP50 | 4 | 4EF | 3,600 | 138 |
| GP53, GP53L | 4 | 4EF | 3,000 | 136 |
| GP60M | 5+ | 5EF+ | 3,800 | 137 |
| GP60B | 5+ | 5EF+ | 3,800 | 135 |
| B23-7 | 4 | 4EF | 2,300 | 134 |
| B30-7A | 4 | 4BF | 3,000 | 138 |
| B36-B-7 | 6+ | 4EF | 3,600 | 140 |
| B-39-8 | 6+ | 5EF+ | 3,900 | 140 |
| B-40-8 | 6+ | 5EF+ | 4,000 | 142 |
| SD7 | 6 | 5BF+ | 1,500 | 157 |
| SD9 | 6 | 5 * | 1,750 | 184 |
| SD18 | 6 | 0 | 1,800 | 175 |
| SD35 | 6 | 5 * # | 2,500 | 195 |
| SD38-2 | 6 | 6 * # | 2,000 | 184 |
| SC38P | 6 | 6BF | 2,000 | 196 |
| TEBC6 | 6 | 6B | 2,000 | 194 |
| SD39 | 6 | 6EF | 2,500 | 195 |
| SD40, SD40-2 | 6 | 6EF * # | 3,000 | 196 |
| SD45, SD45-2 | 6 | 6ET | 3,600 | 198 |
| SD50 | 6 | 6EF | 3,600 | 194 |
| SD60, SD60M | 7+ | 8EF+ | 3,800 | 201 |
| SD70M | 7+ | 9EF+ | 4,000 | 200 |
| SD75M | 7+ | 9EF+ | 4,300 | 197 |
| C30-7 | 6 | 6EF# | 3,000 | 209 |
| SF30C | 6 | 6EF | 3,000 | 160 |
| C36-7 | 6 | 6EF | 3,600 | 197 |
| C40-8 | 7+ | 8EF+ | 4,135 | 197 |
| C44-9W | 8+ | 8EF+ | 4,400 | 196/210 |
| ES44DC | 8+ | 8EF+ | 4,400 | 210 |

| AC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| **C44AC[1] AC4400CW[1] AC4400EV[1] CW44AC[1]** | 8+ | 10EF+ | 4,400 | 210 |
| 1TM c/o | 8+ | 8EF+ | | |
| 2TM c/o | 6 | 6EF | | |
| 3TM c/o | 4 | 5EF | | |
| 4TM c/o | 3 | 3EF | | |
| 5TM c/o | 2 | 2EF | | |
| **C60[1] C60AC[1]** | 8+ | 12EF+ | 6,000 | 210 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **ES44AC[1]** | 8+ | 10EF+ | 4,400 | 208 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **SD70MAC** | 8+ | 8EF | 4,000 | 208 |
| 1 Truck c/o | 4 | 5EF | | |
| **SD70ACE** | 8+ | 10EF+ | 4,300 | 208 |
| 1TM c/o | 6 | 6EF | | |
| **SD70ACE4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD70ACT4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD80MAC** | 8+ | 10EF | 5,000 | 210 |
| 1 Truck c/o | 5+ | 5EF | | |
| **SD90/43MAC** | 8+ | 10EF | 4,300 | 208 |
| 1 Truck c/o | 4 | 6EF | | |
| **SD90MAC** | 8+ | 11EF | 6,000 | 208 |
| 1 Truck c/o | 6 | 6EF | | |
| **ES44C4[1] AC44C4M[1]** | 8+ | 8EF+ | 4,400 | 208 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **ET44C4[1]** | 8+ | 8EF+ | 4,400 | 214 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |

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Note: Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.

| | |
|---|---|
| + | Power or dynamic brake axle rating exceeds actual axles |
| ¹ | GE/EMD Locomotives (C44AC, C60AC, SD70ACT4, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives. |
| % | PTC Equipped |
| * | May not be equipped with dynamic brakes |
| # | May be equipped with standard range dynamic brakes |
| E | Extended dynamic brake range |
| B | Basic dynamic brake range |
| F | Flat dynamic brake system |
| T | Tapered dynamic brake system |

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in timetable individual subdivision special instructions.

| |
|---|
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 |
| Dozers |
| Empty ribbon rail cars (if moving with no train list or if identified as “Rear End Only” on train list) |
| Herzog clip cars: HZGX 153, 154, 155 |
| Herzog MPM:<br>HZGX 164, 165, 167, 174, 1740, 176, 1760, 178, 1780, 179, 1790, 180, 1800<br>HZGX 189, 1890, 18900, 192, 1920, 19200, 193, 1930, 19300, 194, 1940, 19400, 195, 1950, 19500, 199, 1990, 19900, 200, 2000, 20000, 205, 2050, 20500, 206, 2060, 20600, 207, 2070, 20700 |
| Jordan spreaders |
| Locomotive cranes |
| Loram, LMIX 203, 204, 409, 410, 412, 414, 415, 417, KMUX 110, 750 |
| Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars |
| Outfit cars (Exception: Univans may be placed anywhere in the train.) |
| P811, BNSF 922999 |
| Pile drivers |
| Plasser machines, PACX 293, 2630, 2645, 3024, 4656, 4657, 4774, 4775 |
| Plasser THS 2000, tie gang consist |
| Rear end only cars |
| Ribbon rail loading and unloading cars |
| Rotary snowplows |
| Wedge plows |

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

Locomotive cranes/pile drivers, wrecking derricks or similar equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by Roadmaster or covered by specific instructions. This equipment must not be humped, cut off in motion or struck by any car moving under its own momentum.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Hand brakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant).
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the timetable individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks as outlined in SSI Item 5.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines (including foreign line cars) having:

- elevated hoses for dump door air line, or
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level),

must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

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**3(D). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(E). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locking devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

A. If the adjacent track is a Main Track, controlled siding or other track where CTC is in effect, authority must be obtained as prescribed by MWOR 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR 6.19 to control movement by the work area.
B. If the adjacent track is a track governed by GCOR/MWOR 6.28 (i.e. yard, industry track, etc.), movement must not be permitted to pass air dump cars which are being charged or being unloaded.

**3(F). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

A. Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
B. Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
C. Cars with defective couplers may be transported to repair facilities behind caboose.
D. A crew transport train consisting of no more than two cabooses positioned between two locomotives may be operated during inclement weather conditions. The lead locomotive must be the controlling locomotive, with trailing locomotive isolated.

**3(G). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 MPH through other than Main Track turnouts.

**3(H). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(I). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid-drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**3(J). Herzog Articulated Equipment**

Herzog articulated equipment (all-purpose machines) are restricted as rear end only because drawbar connection between Herzog locomotive and cars does not have vertical restraint.

Switching Restrictions: All Herzog equipment must not be humped or handled with other freight cars during switching operations. This equipment must be cut off or set over so that remaining cars can be switched.

**3(K). Herzog Rail Unloading Machine**

A Herzog Rail Unloading Machine (RUM) may be coupled to a work train for rail unloading purposes only. The train must remain stationary while the RUM couples to the train in self-propelled mode. The following restrictions apply to trains with a Herzog RUM coupled to the train:

- All train movements may be made only at the direction of a qualified Herzog RUM operator accompanying the equipment.
- Maximum speed with Herzog RUM on trailing end of the movement is 15 MPH.
- Maximum speed with Herzog RUM on leading end of the movement is 10 MPH.

**3(L). Handling Roadway Equipment Equipped with Couplers and Air Hoses by Trains or Engines**

To prevent equipment damage, the following restrictions apply when handling Roadway Equipment equipped with rail car couplers and air hoses during train or switching movements:

- All air hoses must be coupled and air brakes cut in.
- An Engineering employee must be present when switching this equipment, including shoving movements.
- When moving between work locations all P811, UC01, UC03, UC08, UC09, UC10 and SC29-35 machines, and the flat cars transporting supporting equipment accompanying these machines, must be handled in a dedicated unit train or a dedicated work train. No additional rail cars may be handled in these trains.
- The heaviest machine may be placed as the rear car of a train only as directed by an Engineering employee.
- Maximum allowable speed while transporting in a train is 50 MPH.

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**4. Geometry Test Car Instructions**

Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, 93 and NXGX 390 (NxGen Car) must move in train by themselves. Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, and 93 are not required to have an ETD at the rear of the car when the car is occupied.

Work Orders for trains handling unmanned geometry test cars BNSF 90, 91, 92, and 93 will include instructions advising the conductor to call the Geometry Car Desk at 817-352-4559.

BNSF 808306, BNSF 808382, BNSF 808387, BNSF 808426, BNSF 808655 and BNSF 808683 are buffer cars assigned to Geometry Car service. When operating in a Geometry Car Consist, these buffer cars are considered to be passenger train equipment with a maximum authorized speed of 70 MPH.

Trains handling test cars AAR 112, BNSF 82 and BNSF 83 behind the locomotive consist may operate without further restricting the train from the maximum authorized speed designated in timetable individual subdivision special instructions. GCOR 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR 5.12 or 5.13. These cars are considered to be occupied at all times.

**FRA Track Geometry Inspection Cars**

The Federal Railroad Administration (FRA) Office of Railroad Safety-Automated Track Inspection Program (ATIP) manages a fleet of geometry test cars that measure track geometry for compliance with the Federal Track Safety Standards. FRA geometry cars are pulled behind a railroad-owned locomotive and staffed with FRA employees and contractors.

**FRA Geometry Car Operation**

1. Each train dispatcher and train crew will be governed by these instructions.
2. Before ATIP testing commences, the FRA representative (assisted by the test car director) is responsible for overall safety and will:
   a. Conduct a face-to-face job safety briefing with the train crew and all occupants of the test car concerning onboard safety appliances and standard operating procedures.
   b. Be aware of and discuss the operational and safety conditions, and on-track protection procedures, which may change throughout the course of the ATIP test; and update the job safety briefing accordingly.
3. The FRA representative will communicate directly with the railroad to ensure all operating rules, special instructions, and safety rules in effect on the test route are understood and correctly applied.
4. Trains consisting entirely of FRA geometry cars are restricted to BNSF timetable passenger train speeds, and must not exceed the following maximum equipment speeds: DOTX 216, 125 MPH; DOTX 217, 219, 220 and 221, 90 MPH; and DOTX 218, 80 MPH.
5. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew. The FRA Geometry Car operator relies on the train crew to identify relevant railroad physical characteristics, movement authority limits and authorized speeds.

**FRA Geometry Car Protection**

1. Neither FRA nor contractor employees will operate a railroad switch or derail, and will rely upon a railroad employee to perform that function. After receiving authority for placement from the appropriate railroad representative, protective devices owned by FRA, i.e., signs, derails, and locking devices, will be applied by an FRA representative.
2. FRA geometry cars must not be relocated or coupled to other rolling equipment without permission of FRA. At the request of FRA or the railroad, the following additional protective measures must be used:
   a. Within a locomotive servicing area or car shop area, the railroad's Blue Signal Protection rules and procedures will govern.
   b. When FRA geometry cars are unoccupied, FRA may request additional protection, such as posted guards, provided by the railroad and reimbursed by FRA.
   c. Where provided, a remotely controlled switch, providing entrance to the track occupied by FRA geometry cars, will be aligned against movement to that track. Blocking devices applied by the control operator will be placed on the switch and signal controls to prevent undesirable access.
   d. A manually operated switch will be aligned against movement to a track occupied by the FRA geometry car, and secured with an effective locking device, exclusive to FRA. In addition, the switch stand's operating mechanism will be equipped with an FRA-provided, visible, all-weather display tag, warning any users: "OUT OF SERVICE - DO NOT OPERATE."
   e. If a switch-locking device cannot be provided, as described above, FRA-provided portable derails will be used as an alternative to restrict access in either direction. In addition to the portable derails, the placement of warning signs will be displayed, indicating the presence of FRA geometry cars. The warning signs will be affixed or adjacent to the derail. FRA-provided derails will not be placed nearer than 150 feet from each end of the geometry cars, except where appropriate.
   f. If an FRA geometry car is standing alone, in addition to applying the hand brake, one wheel will be securely chocked to prevent movement.
   g. Either on a Main Track or other than Main Track, before anyone goes on, under, or between FRA track geometry cars, the locomotive engineer will apply the independent brake on the locomotive, remove the locomotive reverser, and open the field generator switch. The individual requiring protection will place a "Do Not Operate" tag on the locomotive control stand at a location where it is readily visible to the locomotive engineer or operator at the controls of that locomotive. The "Do Not Operate" tag may only be removed by the person who placed it on the locomotive control stand. Additionally, if adjacent tracks are, or will be, fouled by the individual going on, under, or between the FRA track geometry car, appropriate adjacent track protection must be afforded before going on, under, or between the car.

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**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- For hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E).
- For tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E).

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601399) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

The actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to locomotive cranes, ribbon rail cars or specialized work equipment.

Item 1(B) of the individual subdivision special instructions may include loaded railcar weight references, in which case the actual car weight may exceed the maximum by up to one ton due to weighing tolerances.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

**Table 5.**

**Car Restrictions**

| Line No. | No/ Axles and/ or Car Length | Typical Car Types & Partial Listing of Representative Car Number Series | **Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H**<br>Indicated weight limits are applicable to either single car or multiple car movements except for:<br>"143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements.<br>"P," which denotes that this type of car is permitted without special autohrization.<br>"NP," which denotes that this type of car is not permitted without special authorization. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E | F | G | H |
| 1 | 4 axles & length less than 35'0" | Hopper | 89 | NP | 89 | NP | NP | NP | NP | NP |
| 2 | 4 axles & length 35'0" to 36'11" | Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179 | 134 | 117 | 134 | 117 | 110 | 110 | 110 | 110 |
| | | | A | B | C | D | E | F | G | H |
| 3 | 4 axles & length 37'0" to 38'11" | Hopper, tank cars ATSF 82056-82990, 176900-177861 | 141 | 123 | 141 | 123 | 117 | 117 | 117 | 117 |
| 4 | 4 axles & length 39'0" to 40'11" | Hopper, tank cars BN 435500-435999 | 143 | 131.5 | 143 | 131.5 | 123 | 123 | 123 | 123 |
| 5 | 4 axles & length 41'0" to 42'11" | Hopper, tank cars BN 476000-476019 | 143 | 143 | 143 | 143 | 134 | 134 | 134 | 131.5 |
| 6 | 4 axles & length 43'0" to 44'10" | Hopper, tank cars | 143 | 143 | 143 | 143 | 136 | 136 | 134 | 131.5 |
| 7 | 4 axles & length 44'11" to 49'5" | Hopper, gondola, tank cars BN 686000-686054 COILCAR | 143 | 143 | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 8 | 4 axles & length greater than or equal to 49'6" | Hoppers, flats, gondolas, tank cars | 143X | 143X | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 9 | 6 axles | ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 LMIX 403, 409, 410, 412, 414, 418, NS 185541-185542 | 197 | 197 | 197 | 197 | 197 | 197 | 185 | NP |
| 10 | 6 axles | DODX 39810-39832, KRL 600430 | 197 | 197 | 185 | 185 | 185 | 178 | 175 | NP |
| 11 | 6 axles | Others | 185 | 185 | 170 | 170 | 170 | 165 | 160 | NP |
| 12 | 8 axles & length greater than or equal to 80'0" | ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021 | 263 | 263 | 263 | 263 | 263 | 235 | 235 | NP |
| 13 | 8 axles & length greater than or equal to 55'0" and less than 80'0" | | 263 | 255 | 263 | 255 | 235 | 235 | 235 | NP |
| 14 | 8 axles & length less than 55'0" | ATSF 90020-90023 | 220 | 195 | 220 | 195 | 180 | 180 | 180 | NP |
| 15 | | Articulated Intermodal | P | P | P | P | P | NP | NP | NP |

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**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Any foreign line carrier operating on BNSF that sets out equipment must notify the BNSF train dispatcher and the BNSF Mechanical Help Desk at the earliest opportunity and provide the following information:

- Equipment being set out including the engine/car number.
- Location where equipment was set out.
- Reason equipment was set out (e.g. flat spots, broken brake rigging, hot bearing, etc.).
- Commodity if a car contains a hazardous material, including but not limited to, Inhalation Hazard car(s).
- Any other pertinent information.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were performed enroute.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the proper track NUMBERS where they report work. Refer to the TRKLIST command in TSS for track numbers at a station or on a subdivision.

**Unit Trains (C, E, G, J, U, and X)**

Unit Trains at origin must report a "Pick Up" event and unit trains at destination must report a "Set Out" event using VTR.

- Report "Set Out" time through the VTR when the set out work is complete at the industry track, trains crews are clear of the equipment and the customer can begin processing the train, or when the unit train is handed off to the facility operator.
- Report "Pick Up" time through the VTR when the train begins departure from the industry track, departing the customer facility.

Train Work Order Package includes the following documents:

- Train list and profile.
- FRA 215.9 Mechanical Defective Cars List (if applicable).
- Hazardous manifest (if train contains hazardous materials).
- Work order for each station.
- Track list of each track to be worked.
- Supplemental Work Order Form.

The following reporting codes will be used to report work performed:

| Reporting Codes | | |
|---|---|---|
| Reporting Instructions for Scheduled/Unscheduled Work | | |
| Code | | |
| CC | CARRIERS CONVENIENCE | (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number. |
| DD | CARS DELIVERED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| IP | INTRA-PLANT SWITCH | (Code, date, time, zone/track/spot) |
| MO | MOVE | (Code, date, time, station name, zone/ track/spot). Use only to reposition a placed car to correct customer inventory. |
| ND | NOT DONE | (When ND code is used, enter ND explanation code or a full written explanation.) |
| OF | CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD | (Code, date, time, station name, zone/ track, name of road and person's name refusing cars) |
| PK | PICKUP | (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order. |
| PU | PULL | (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time, station, zone/ track where cars were left.) |
| RR | CARS RECEIVED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| RS | RESPOT | (Code, date, time, zone/track spot) |
| SO | SETOUT | (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/ number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD. |
| SP | SPOT | (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number. |
| TU | CARS TURNED ON WYE OR TURNTABLE | (Code, date, time, station name, zone/ track/spot) |

**Not Done Reasons - Potential Charge to Customer**

Car Can't Be Pulled - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

Car Can't Be Spotted - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

**Not Done Reasons - Not Chargeable to Customer**

Operation Reason

- Bad Order Car
- Done in Other Direction
- Tonnage Restrictions or Loco Problems
- Instructed to do Other than Scheduled Industry Work
- Not Switched into Train - Unavailable
- Hrs of Service Expired or Short on Time
- Weather Conditions
- Not Granted Mainline Time by Dispatcher
- Other Operating Exception

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**Reporting Methods**

*Radio*—With the exception of trains using the Work Order Reporting system or when reporting work trains, Voice Train Reporting using the MRAS/PBX system is the preferred method of reporting work. Conductors and engine foremen are expected to report as soon as possible after work is performed at each station. If Voice Train Reporting (VTR) or Work Order Reporting System (WORS) is used to report, it is not necessary to call Customer Support.

*Telephone or Cellular Phones*—Telephone or cellular phones assigned to conductors and engine foremen may be used when MRAS/PBX or radio communication is unavailable or radio is congested in order to provide timely reporting in the field.

*Electronic Device*—Computer reporting will not require any written documentation to be forwarded.

Conductors and engine foremen are required to call their designated Customer Support Specialist anytime there are questions or problems with work order information or work to be performed during their tour of duty.

**Work Order Codes**

There are three types of work order codes that appear on work orders: Request Codes, Status Codes and Hold Codes.

| Request Codes | | |
|---|---|---|
| **Code** | **Displays Work to Be Performed** | |
| **IP** | **INTRA-PLANT SWITCH** | Customer request to move a car originally spotted correctly to another spot or track within the industry. Cars are commonly moved per this request to complete loading, for inspection, etc. This switch is chargeable to the customer. |
| **PK** | **PICKUP** | Cars available to be picked up by train, local, road switcher at station. |
| **PU** | **PULL** | Customer request to move a car from an industry track to another track or scheduled destination. |
| **RS** | **RESPOT** | This switch is not chargeable to the customer and should be used only when correcting a railroad error. Customer request to move a car to a different track or spot within the industry after being placed incorrectly. |
| **SO** | **SETOUT** | Cars scheduled to be set out by train, local, road switcher at station. |
| **SP** | **SPOT** | Customer request to spot car for loading/unloading. |
| **TU** | **CARS TURNED ON WYE OR TURNTABLE** | Request to turn a car previously spotted and re-spot. |

| Status Codes | | |
|---|---|---|
| **Displays Current Status of Cars (Does not require any work to be performed)** | | |
| **Code** | | |
| **CP** | **CP** | Constructive placement. (Condition between carrier and customer.) |
| **DD** | **CARS DELIVERED IN INTERCHANGE** | Displays cars scheduled for interchange delivery to a connecting road. |
| **OF** | **CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD** | Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars. |
| **PL** | **PLACED** | Car on spot. (Displays car status and not a request.) |

| Hold Codes | |
|---|---|
| **Carrier/Customer Instructions Have Not Been Provided** | |
| **Scheduled Train Field** | |
| **HOLD ED** | Car to be held for equipment distribution. |
| **HOLD EH** | Car is to be held for embargo. |
| **HOLD HL** | Car is HIWIDE and has not been scheduled to a train. |
| **HOLD LS** | Car is on floating lease being held for customer order. |
| **HOLD ME** | Car is to be held for mechanical inspection. |
| **HOLD MT** | Car not scheduled for outbound train. |
| **HOLD NI** | Car has no instructions for spotting. |
| **HOLD OT** | Car is to be held for local order. |
| **HOLD WH** | Car is to be held for weighing. |
| **HOLD HF** | Car has no measurements/clearances. |
| **SCHI Code Field** | |
| **DO** * | Written delivery order. DO NOT SPOT. |
| **NC** * | Non-credit customer. DO NOT SPOT. |
| **SO** * | Car billed shipper's order. DO NOT SPOT. |
| **ZNTKSP Field** | |
| **00 00 00*** | DO NOT SPOT |

* Do not spot cars with '00 00 00' in the ZNTKSP field or cars with NC, DO or SO in the SCHI field.
(Cars may be pulled or picked up and moved to a location for further disposition when these codes are displayed.)

Work order documents will display work order codes as outlined by customer or carrier for specific instructions to conductors or engine foremen. They will be located in the Special Car Handling Instructions (SCHI) column or in the Scheduled Train column.

**Hours of Service**

Conductors or engine foremen should plan ahead and report scheduled and unscheduled work before hours of service expire. Conductors and engine foremen who relieve crews whose hours of service have expired will be responsible for reporting work performed during their tour of duty. If a crew's hours of service expire and they are unable to report scheduled or unscheduled work, the information must be passed on to the relieving conductor, engine foreman or supervisor who will be responsible to report work for the previous job.

**Pick Up in Block**

When picking up cars, enroute, trains must pick up in block unless otherwise advised by train dispatcher or in conflict with current train makeup instructions.

**7. Dimensional and Special Shipment Restrictions**

All employees involved in handling dimensional or special shipments must be familiar with and are governed by these instructions.

Dimensional loads on BNSF are defined as wider than 11' and/or higher than 17' ATR and/or longer than the length of the car.

Transportation Supervisors: See Management Instruction regarding advance notification requirements for dimensional shipments routed on UPRR or within the state of California.

a. Any dimensional and/or oversize car or special shipment must be accompanied by one of the following: message included with train's work order, track bulletin or message issued by BNSF Clearance Bureau.

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b. Before a dimensional shipment can be assigned to a train the supervisor in charge of train or yard crews (Terminal Manager, Trainmaster, Assistant Trainmaster, Yardmaster, etc.) at that location, or the conductor or yard foreman where no supervisor of train or yard crews is on-duty, must review and verify the dimensional clearance bulletin to ensure shipment is clear over the designated route of travel. After the review is complete the shipment may be assigned to the train appropriately. Issues regarding scheduling and/or train set, please contact Service Scheduling at 817-867-2000. Any issues regarding additional clearance segments and/or a lack of clearance, please contact the Dimensional Clearance Team for assistance at high.wide@bnsf.com.

c. Before a dimensional shipment can be moved in the yard, train or yard crews handling the dimensional shipment must ensure there is adequate clearance on adjacent tracks for safe movement. Clearance bulletins issued by the High Wide Team only protect BNSF main lines.

d. Before a dimensional or special shipment can be moved in a train the supervisor in charge of train crews (Trainmaster, Assistant Trainmaster, Yardmaster) at that location, or the conductor where no supervisor of train crews is on-duty, must obtain permission from the train dispatcher. This does not relieve conductor from complying with GCOR 1.47. When yard supervisors are notified of expected arrival of wide cars, precautions must be taken to safeguard employees in yard.

e. Before a dimensional shipment is picked up on line, conductor must obtain permission from the train dispatcher. When dimensional or special shipment is set out on line, conductor must promptly notify the train dispatcher.

f. Train dispatcher must issue appropriate track warrant, track bulletin or message when dimensional shipment restricts opposing train and confirm message received.

g. Train with dimensional shipment must not pass or be passed by a train in the same direction unless authorized by the train dispatcher or proper safeguards taken.

h. To provide for close observation enroute, all dimensional shipments must be placed in a block next to the lead locomotive consist, or due to the following exceptions as near the lead locomotive consist as possible:

1. Dimensional shipments, including idler cars moving with dimensional shipments, must be placed in compliance with minimum weight requirements outlined in train makeup rules.
2. On trains destined to or operating in the state of California, and train room permits, dimensional shipments must be no closer than the 6th car or platform from the lead locomotive consist. Dimensional shipments placed in train to comply with these requirements are also considered in compliance when enroute from the state of California.
3. Trains received from foreign railroads with dimensional shipment placement other than described above, may proceed to a location specified by train dispatcher to correct the condition.
4. When dimensional shipment is a shiftable load, GCOR 1.37 applies.

Boeing dimensional shipments, identified as having contents ACFTEQ on the train list, must be placed ahead of other dimensional shipments. Trains with one or more dimensional Boeing shipments with contents ACFTEQ, are limited to a combination not to exceed 10 loads and/or empties.

The following idler cars do not count towards the 10 car combination limitation:

| | | |
|---|---|---|
| MTTX 978773 | TTMX 80662 | XTTX 146316 |
| TBCX 737002 to TBCX 737042 | TTMX 80681 | XTTX 146319 |
| TBCX 737067 to TBCX 737084 | TTMX 80857 | XTTX 146322 |
| TTMX 80139 | XTTX 146251 to XTTX 146254 | XTTX 146323 |
| TTMX 80300 | XTTX 146262 | XTTX 146337 |
| TTMX 80635 | XTTX 146264 to XTTX 146267 | XTTX 146339 |
| TTMX 80657 | XTTX 146276 | |

These are specialized Boeing Service idler cars weighing 45 tons or more and may be billed loaded or empty, depending on destination. Trains handling all empty dimensional Boeing cars with contents ACFTEQ are limited to maximum of 25.

Note: In the application of the above, articulated autoveyors (car kinds M2F and M3F) are not considered dimensional shipments. (See Item 46)

No more than six uncovered assembled airplane fuselages may be transported in a train without approval from Boeing.

Airplane fuselages transported in trains from Wichita to Renton must be turned as soon as possible to move nose first in the direction of train travel unless otherwise approved by Boeing.

i. Employees are prohibited from riding excessive dimension cars. This restriction does not apply to:
- Auto-Max cars (car types M2F and M3F)
- Boeing cars - XTTX 146220, XTTX 146232, XTTX 146304, XTTX 146311, XTTX 146298, XTTX 137353

j. Train crews handling dimensional and/or oversize car or special shipment car(s) approaching locations controlled by the train dispatcher and where these car(s) are restricted should communicate with the train dispatcher and jointly determine if a meet or pass of any other equipment at the restricting location(s) can be accomplished safely.

k. When the dimensional message indicates “Stop, Proceed on Hand Signals” at a specific location, the following will apply:
- Stop the train before passing the location specified.
- Check the dimensional load for shifted contents.
- If safe to proceed without damage to shipment or property, move beyond the specified location on instructions from an employee(s) closely observing the shipment, not exceeding 5 MPH until the dimensional shipment clears the location specified.
- If employee(s) is unable to continue observing the shipment closely due to train makeup, topography, etc., movement may continue, not exceeding 5 MPH until the dimensional shipment clears the location specified.

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## 8. Trackside Warning Devices (TWD)

### 8(A). Description

Trackside warning devices (TWD) inspect passing trains for defects or monitor for unusual trackside conditions that could adversely affect the safe and efficient movement of trains. Examples of such devices include detection of the following conditions:

- Overheated journal bearings (hot bearing) (HBD)
- Hot wheels
- Dragging equipment (DED)
- High/Wide/Shifted load (SLD)
- High water
- Earth/Rock slide fence

Individual subdivision special instructions identify the following:

- Detector location
- Detector type

Unless otherwise stated, protection will be hot journal and dragging equipment with bidirectional operation.

Exceptions will be shown as follows:

- Northward direction only (NWD)
- Southward direction only (SWD)
- Eastward direction only (EWD)
- Westward direction only (WWD)
- Dragging equipment only (DED)
- Shifted load only (SLD)
- Detectors that protect bridges, tunnels or other structures
- Exception Reporting detector

### 8(B). Detector Radio Message

While passing over a detector, a pre-alarm message indicating "You have a defect" will be transmitted if a defect is detected. When this pre-alarm message is transmitted, immediately begin reducing speed in preparation to stop after the alarm message is transmitted, utilizing train handling methods that minimize in-train forces. Do not reduce speed below 20 MPH.

After a train has passed a detector, a radio message will be transmitted (unless the detector is defined as "Exception Reporting" or "Failure Reporting" in Item 5(B) of the individual division timetables). This radio transmission will provide alarm message details for defects noted during train passage such as "hot journal" detected, or non-alarm messages such as "no defects" or "integrity failure."

When the entire train has passed the detector and alarm message is transmitted, immediately stop the train utilizing train handling methods that minimize in-train forces.

The detector message is not complete until "Out" is transmitted.

**Train Approaching Detector**

Except in emergency, when approaching train is within 150 feet of a TWD, DO NOT make a radio transmission until the entire train has passed the TWD.

The train crew must have the radio set to the “in service” radio channel, for the Subdivision and location of the TWD, as shown in the timetable. The radio channel should not be changed until the entire train has passed by the TWD location and you have allowed time for the TWD to transmit any messages.

### 8(C). Detector Message and Train Crew Action

Use the following table to determine crew requirements when a detector message is received. If detector indicates more than one detector message or circumstance, comply with each train crew action shown. Radios at Exception Reporting detectors will only transmit a message when an alarm is present. Do not report a failure to transmit to the train dispatcher as is required with other types of detectors.

Note: 5(A) indicates detectors that protect bridges, tunnels or other structures. 5(B) indicates other TWD locations.

**Table No. 1 - 8(C) Non-Alarm Message**

| Type Detector | Non-Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | When detector announces “... no defects”, “Maintenance Required” or when advised by signal maintainer or train dispatcher that there are no defects. | Proceed. | Report “Maintenance Required” to the train dispatcher, unless “Train Too Slow” is transmitted in the same message. Then, no report to the train dispatcher is required. |
| 5(A) | “Integrity Failure” | Stop the train consistent with good train handling. Perform a rolling inspection not exceeding 5 MPH on both sides of the train without entering or traversing protected structure. If unable to stop before a portion of the train has entered or traversed the protected structure, perform a walking inspection of that portion that is on or has already traversed the structure and perform a rolling inspection for the remainder of the train. | Report integrity failure to train dispatcher. |
| 5(A) | “Train Too Slow” or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | None |

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| | | | |
|---|---|---|---|
| 5(B) | "Train Too Slow" or "Integrity Failure" or "Maintenance Required" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | Report "Integrity Failure" or "Maintenance Required" to the train dispatcher unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required. |

**Table No. 2 - 8(C) Alarm Message**

| Type Detector | Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | "First dragging equipment near axle XXX" or "First hot wheel right/left from axle XXX to axle XXX" or "First wide load right/left side near axle XXX" or "Shifted load right/left side near axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Inspect the indicated axle(s).<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) | "First hot journal right/left side axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Inspect the indicated axle(s).<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

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| | | | |
|---|---|---|---|
| 5(B) | “First hot journal right/left side axle XXX” | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Contact NOC detector desk to initiate review of bearing profiles that caused alarm. If at any point before or during the inspection the NOC detector desk determines the stop to be invalid and releases the train, the inspection may be concluded.<br>Otherwise:<br>4. Inspect the indicated axle(s).<br>5. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector alarm message may identify more than one defect. Unless released by the NOC detector desk, inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

| | | | |
|---|---|---|---|
| 5(A) or 5(B) | "Excessive Alarms" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Inspect the indicated axle(s).<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Inspect both sides of the remainder of the train from the last reported defect.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) or 5(B) | "Hot Journal-Train Too Slow" is Transmitted. | Stop and make a walking inspection of both sides of entire train. | Report "Hot Journal-Train Too Slow" to Train Dispatcher |

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**Table No. 3 - 8(C) Other Circumstances**

| Type Detector | Circumstance | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | Speed varies by more than 10 MPH from actual speed. | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train.<br>3. Report findings to train dispatcher. | None |
| 5(B) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, proceed. | Report no message or incomplete message to train dispatcher. |
| 5(A) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of entire train. | Report no message or incomplete message to train dispatcher. |
| 5(B) - without recall code | No message<br>or<br>Incomplete message is transmitted. | Proceed | Report no message or incomplete message to train dispatcher. |
| 5(B) - Exception Reporting | No Message | Proceed | Do Not Report "No Message" to Train Dispatcher |
| 5(B) - with recall code Exception Reporting | Incomplete Message is Transmitted | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of train. | Report incomplete message to train dispatcher. |
| 5(B) - without recall code Exception Reporting | Incomplete Message is Transmitted | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train. | Report incomplete message to train dispatcher. |
| Note: Detector message followed by the word "Out" indicates a complete message. Total axle count is not required for a complete message. If an alarm message is transmitted and it is not followed by the word "Out", the train will be governed by the Train Crew Action for that alarm message | | | |

**8(D). Train Inspection**

When alarm message requires inspection, inspect the side of the train in the message. The reference to defect locations will be from HEAD END of train, and references to LEFT or RIGHT side are to engineer's left or right side in the direction of travel.

Determine the location of the indicated axle by physically counting axles from the HEAD END of the train, including locomotive axles. DO NOT depend on wheel report information for correct axle count. When alarm message requires, inspect indicated axle(s). If inspection does not reveal a defect, inspect 12 axles forward and 12 axles to the rear of the indicated axle. When this is necessary, inspect all 12 axles in each direction regardless of whether a defect is found before reaching the twelfth axle.

**Dragging Equipment/Shifted Load Inspection**

When a dragging equipment or shifted load alarm message is received, make a walking (trackside) inspection of the train until the inspection is complete or until an obstruction (bridge without a walkway) prevents further inspection. When obstruction prevents completion of inspection, move train at no more than 5 MPH to complete the inspection per GCOR 6.29.2. The train may proceed only after walking inspection confirms there is no dragging equipment or shifted load(s), defective car(s) are repaired or permission is received from the train dispatcher or manager to move the defective equipment.

**Overheated Equipment Inspection**

When an overheated equipment alarm is received, follow this procedure to inspect equipment:

- Crew member positioned on the ground must count axles.
- Move train at no more than 10 MPH until the indicated axle is near crew member or until inspection is complete.

When a train is stopped by a trackside warning device for hot journal or hot wheel, crew is to immediately contact train dispatcher who will relay the occurrence along with train identification and location to the NOC Detector Desk. The NOC Detector Desk will then contact the train and assist the crew with the process of inspection and identification of the suspect car. Train may not depart inspection location until NOC Detector Desk releases train from inspection and permission to depart is received from train dispatcher. The train crew must report the following to the NOC Detector Desk:

1. The axles were physically counted
2. A heat-indicating crayon or infrared device was used at the indicated axle,
   and
3. If inspection does not reveal a defect, that 12 axles forward and to the rear of the indicated axle have been inspected.

If a heat-indicating crayon or infrared device is not available, set out the indicated car.

After released by the NOC Detector Desk, contact the train dispatcher for permission to depart inspection location and to report train delay/detector stop information (i.e. axle readout, inspection result, car initial and number, journal number and size, set out location, crayon used, etc.). To contact the NOC Detector Desk, when using the 3 digit radio call-in code, use the 2 digits indicated in the timetable followed by a 5. If using the 1 digit radio call-in code, use 5.

**Freight Trains**

If no defect is found, train may continue, but crew members must closely observe indicated equipment for the next 25 miles or until inspection by hot bearing detector.

When a train actuates a wayside hot bearing detector before crew change location, the relieving crew will be advised of the equipment that activated the detector so that they can inspect the car and follow the above procedure if the equipment actuates a subsequent detector enroute.

When a freight train, other than a Key Train, is stopped by a trackside warning device and the indicated axle is on a loaded, placarded, non-intermodal car containing hazardous material, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

When a Key Train is stopped by a trackside warning device, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car (hazmat or not) must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car (hazmat or not) must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

**Passenger Trains**

If no defect is found after inspecting 12 axles forward and 12 axles to the rear of the indicated axle, inspect both sides of the entire train.

If no defect is found, train may continue, but crew must closely observe indicated equipment for the next 25 miles or until next inspection by hot bearing detector.

**8(E). Testing Bearing Temperature**

Use a heat-indicating crayon or handheld infrared device to test bearing temperature. Test bearing temperature by stroking the heat indicating crayon on the bearing cup. A liquid smear will remain on an overheated bearing. (Determine if the bearing is hot by using a Dual Temp. 163 degree - 200 degree Fahrenheit, Mark All Thermal Melt, Millennium ordering reference no. 458304011.)

When ambient temperature is 32 degrees Fahrenheit or above, use a 200-degree Fahrenheit heat-indicating crayon to test bearing temperature.

When ambient temperature is below 32 degrees Fahrenheit, use a 163-degree Fahrenheit heat-indicating crayon to test bearing temperature.

Set out equipment with overheated bearings.

If it is safe to move equipment, set out car with an overheated bearing at a location accessible to repair personnel.

**Operating Infrared Device**

To measure a temperature, point at object and pull the trigger. Unit must be held approximately 1 – 1 ½ feet away from the journal or wheel to be measured. In order to be accurate, the target area must be at least twice as large as the spot size. Target must be free of grease or dirt. Steam, dust, smoke etc. can prevent accurate measurement by obstructing the unit's optics. Use the laser only for aiming.

CAUTION: Laser should never be pointed directly at eye or indirectly off reflective surfaces.

Point Non-Contact Thermometer (Infrared Device) at the bearing cup identified during train inspection and pull the trigger. Use laser for aiming the device. Record temperature displayed on the LCD. If temperature exceeds 180 degrees above ambient (outside) temperature, journal or wheel is considered hot and must be set out for repair. Ambient temperature may be determined by targeting any portion of the railroad car (except the wheel or journal) that has been exposed to outside air temperature. Avoid targeting the shiny surface of the wheel tread when measuring wheel for excessive temperature. Inaccurate readings will result from measuring polished or shiny surfaces. To measure wheel temperature, target the outside area of the wheel.

**Note:** When outside ambient temperature is significantly lower or higher than temperature where device is stored i.e., personal luggage or pocket, thermal shock may occur to the unit when removed from stored area. This may affect the ability of the LCD to give readout. In addition, accuracy of readout can be affected. If outside air temperature is less than 32 degrees Fahrenheit, it is recommended the device be kept in pocket until ready to target the wheel or journal to be inspected.

**8(F). Consecutive Alarm Messages**

If the same equipment is indicated by two successive hot bearing alarm messages, set out the indicated equipment. When a train actuates a wayside hot bearing detector before a crew change location, the crew being relieved will advise the relieving crew of the equipment that activated the detector. If the same equipment is indicated by the next detector with a hot bearing alarm message after departing the crew change location, set out the indicated equipment.

**8(G). Alarms Indicated on Locomotive or Caboose**

When unable to locate a defect indicated on a locomotive or caboose, notify the following:

- Connecting crew members
- Mechanical personnel
- Supervisor

Do not set out a caboose with a generator belt attached to the indicated axle unless a hot bearing, hot wheel or dragging equipment is found.

**8(H). Special Conditions**

When a hot bearing is found within 25 miles of a hot bearing or hot wheel trackside warning device, a crew member must notify the train dispatcher. The train dispatcher must notify the signal maintainer and request the TWD equipment be inspected.

When blowing or swirling snow conditions may prevent hot bearing detectors from making a proper inspection, crew members must reduce train speed to no more than 30 MPH while train is passing the detector to minimize this condition.

**8(I). High Water Detectors**

High water detectors have been placed under certain bridges and in areas where high water might occur.

A. When train is notified of high water by rotating red lights, radio message, signal indication or at a radio readout and no response is received, crew must not proceed over bridge or track until trackside examination by crew member or Engineering employee has been made to determine the following:
   - The track has not lost its normal alignment,
   - The track or bridge does not have sagging surface,
   - The shoulder ballast or ballast between the ties is not missing,
   - Water is not running between the ties, and
   - Water is not over the rail.

If inspection is made by an Engineering employee, the employee must be at the location and complete the inspection immediately before the train traverses the location. Follow up inspections must be made before each subsequent train move until the hazard is known to no longer exist. If determination cannot be made, contact train dispatcher for instructions before proceeding.

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B. Trains moving against the current of traffic must approach all locations protected by high water detectors prepared to stop unless:
- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- The shoulder ballast or ballast between the ties is not missing,
- Water is not running between the ties, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding. Note: When moving against the current of traffic and the location is protected by rotating red light or radio response, be governed by Item A above.

**8(J). Slide Detectors**

Slide detectors have been placed in certain areas where earth/rock slides might occur.

When a rock slide is indicated by rotating red light or radio message, trains must proceed at Restricted Speed AND be prepared to stop short of any obstruction through the entire slide detector area.

When train is stopped or moving at Restricted Speed because of signal indication governing movement through a slide detector, train must ALSO be prepared to stop short of any obstruction through the slide detector area.

Train dispatcher must be promptly notified if slide conditions are observed.

At locations equipped with Radio Readout type detectors, if no response is received, trains must proceed at Restricted Speed until track at this location is known to be clear of any obstruction. Train dispatcher must be promptly notified if slide conditions are observed.

**8(K). Warm Journal Detectors**

Warm Journal Detectors identify potential failure conditions in advance of actual failures using information provided only to the NOC Detector Desk, where the information is evaluated and necessary crew action is determined. When crew action is necessary, the NOC Detector Desk will coordinate through the chief dispatcher to have the train dispatcher issue required train crew action via radio. Train crews are then to contact the NOC Detector Desk and be governed by any additional instructions.

When notified by the dispatcher or NOC Detector Desk to take action relative to a "warm" bearing/journal, the train (including Key Trains or any train with hazardous material shipments) may be moved without additional restrictions to a convenient location to inspect or set out as directed.

Directed train crew action may include:

1. Perform a Set and Release of the Air Brakes:

   Perform a set and release of the air brakes (minimum of 10 psi brake pipe reduction) in an attempt to release any sticking brakes at the first convenient location consistent with good train handling. A "running release" may be performed if engineer determines conditions allow per ABTH Rule 103.3C. When a running set and release is necessary the NOC Detector Desk may contact the train crew directly with instructions.

2. Stop and Inspect a Specified Car:

   Stop and inspect specified car and be governed by instructions provided in each case by the NOC Detector Desk.

3. Set Out a Specified Car:

   Set out specified car at location as directed.

Instructions for potential failure conditions identified by the NOC Detector Desk do not supersede instructions for overheated/hot journals or defective equipment identified by other Trackside Warning Devices or visual inspections.

**8(L). Track Integrity Warning System (TIWS)**

The following TIWS instructions are in effect, unless otherwise specified in subdivision specific Timetable Special Instructions:

The Track Integrity Warning System checks the rail for continuity and alerts the Train Dispatcher to possible track occupancies or defects (e.g. broken rail) in non-signaled territory.

Subdivisions where TIWS is in effect are divided into a series of "zones" displayed by the Train Dispatcher's control system and identified in the field by Mile Post signs, Siding Switch signs, or a combination of these signs. Mile post signs identifying boundaries of a "Zone" may be displayed in tenths of a mile. Example: MP 926.3.

Track authority limits may be designated by MP signs representing "Zone" limits.

Alerts will be generated to the train dispatcher when occupancy is detected within a zone(s) not corresponding in proper sequence with an authority issued on that segment of track. Such alerts are referred to as "Track Integrity Down" (TID) and will be communicated by the Train Dispatcher to trains authorized within the zone(s).

Verbal instructions for "TID" may be provided to trains closely approaching the TIWS zone when an alert is received.

A new authority including "TID" information will be issued to trains not closely approaching an alerting zone. "Track Integrity Down" will be abbreviated as "TID". Following are examples of a "TID" communicated by Track Authority:

"TID MP 1011.3 to MP 1015.8" or "TID WSS Baker"

Trains receiving notification of "TID" must move at Restricted Speed within the designated zone limits and/or over a designated switch.

**8(M). Wheel Impact Load Detector (WILD)**

A Wheel Impact Load Detector (WILD) monitors passing trains for wheel defects which are categorized as Level 1 or Level 2. When a train passes over the detector, WILD installations equipped with field radio broadcast capability will transmit a radio message only when a defect has been identified, followed by the word "out". WILD installations with radio broadcast capability will be identified in the timetable.

**Level 1**

When a Level 1 defect is identified by a WILD with radio broadcast capability, a radio message will be transmitted indicating "you have (number of defects) defects", "Train (lead locomotive number)". After a brief pause, the detector will then broadcast details regarding right or left side, axle count from head end of the train and car number for the defect identified. Required train crew actions for Level 1 defects:

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- Record the information transmitted by the detector.
- Stop train and notify the train dispatcher of the delay due to required WILD Level 1 inspection.
- Inspect the axles identified for defects.
- If no defect is found, inspect 12 axles forward and 12 axles backward from the axles identified.
- Notify the dispatcher of the conditions found.
- Train may not depart from the inspection location until released by the detector desk and permission to depart is received from the train dispatcher.

If a defect message is incomplete or cannot be understood, enter the recall code. If message recall is unsuccessful, notify the train dispatcher and proceed with no restriction.

**Level 2**
Level 2 condition information is monitored by the detector desk and is used for predictive maintenance purposes only. The WILD will not transmit Level 2 detail by radio.

**9. Amtrak Instructions**

BNSF dispatchers must have General Track Bulletins (GTB) issued at least one hour before trains departure. If the Amtrak train crew does not have the GTBs 45 minutes before trains departure they must contact the dispatcher immediately. If unable to contact the dispatcher for GTBs 35 minutes before train departure, train crew must contact the BNSF Passenger Operations Team at 1-800-871-0902.

Dispatcher must be notified immediately when train does not maintain maximum authorized track speed.

Dispatcher must be notified immediately when crews experience rough track conditions stating limits and severity. This same information must be documented on the conductor delay report

No trash may be discarded on BNSF property.

**Station and Reporting Times**
Station work must be done in an expedient manner to avoid exceeding station dwell times. If station work is anticipated to exceed scheduled dwell time by more than 5 minutes, sufficient advance notice must be given to the dispatcher to eliminate or minimize train delays.

**Amtrak Trains Reporting Clear/Releasing Track Warrants**
Engineer and conductor are jointly responsible, through job safety briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant. When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Communication will use the following format:
  Crew member will state: "(Name), locomotive initial, number, (direction), reports clear of (mile post/location) (Provide switch briefing when required). Over."

  Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct. Over"?

  Crew member will state: "Job safety briefing between conductor (name) and engineer (name) confirm, that is correct. Over".

**Equipment**
Unless otherwise provided, equipment that cannot be safely operated at maximum speed must be set out at first available location unless train can arrive at final destination in less time than would be required to make the set out.

- Maximum speed for freight locomotives in Amtrak service is 70 MPH.
- Double stretch is required after pick up or set out of cars or locomotives.
- Required hand tools and supplies must be available on locomotive.
- Required switch keys must be in possession of Engineer and Conductor.
- Amtrak may not exchange or discharge passengers between trains except at stations.
- Amtrak may not exchange supplies between trains except at stations unless authorized by train dispatcher.
- Amtrak train garbage/refuse to be off loaded must be loaded into approved containers and only at stations that have assigned Amtrak employees or caretakers.
- Amtrak toilets must be discharged into appropriate containers. Dumping of toilets from Amtrak trains on BNSF right of way is prohibited.

**Head End Attendance**
The head end of all occupied passenger trains must not be left unattended for any reason while occupying Main Track or siding. At crew change locations the engineer's job safety briefing will take place in the locomotive cab or controlling compartment of cab control car. If the outbound crew is not on spot at a crew change location on arrival, the inbound engineer will remain on the head end until the outbound engineer arrives.

**Head End Power (HEP) Requirements**

- Departure from the originating station with the HEP cables short looped is prohibited.
- In the event of HEP failure, crew members must determine if the train may be handled safely and must make every effort to advance the train to the next siding or scheduled stop before repairs are made.
- All HEP cables must be secured with approved tie-downs.
- Air hoses and HEP cables must be secured no less than 4 inches above the top of the rail.

**BNSF Crews Operating Amtrak Trains**
When a BNSF crew operates an Amtrak train, a freight locomotive must be used. Amtrak personnel must handle all 480-volt AC power and set up Amtrak locomotives in the trail position. BNSF crews are prohibited from handling, adjusting or performing work between or under cars when Head End Power (HEP) 480 volt AC is energized. A freight locomotive will not be necessary when BNSF engineer is accompanied by an Amtrak qualified engineer or qualified Amtrak supervisor.

**BNSF Mechanical Assistance**
When mechanical problems develop the train dispatcher must be notified immediately as described in System Special Instructions item #45 and BNSF NOC Mechanical Desk notified if assistance is required. The delay for mechanical problems must be documented properly on the delay report.

**Conductor Delay Reporting**
The Amtrak conductor delay reporting method has been replaced with an electronic method. The electronic delay report (EDR) is essential to both Amtrak and BNSF. If the train operates on a route requiring EDR, the delay information must be reported no more than two hours after the train arrives its destination or at a crew change location.

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The reporting must be professional, brief, specific, and worded clearly and concisely. Each individual reason for delay must be separated from other delays. The reporting must include, in order of occurrence, the following:

- Any delay due to the inability to maintain maximum authorized passenger train speed.
- Reasons for delay over dwell times identifying specific cause of delay (passengers, baggage, late bus connections, mechanical issues, etc.).
- Delays associated with field equipment detectors. These delays require that specific information be given, even if no defect is found. Information as to the location of the defect, Car/Locomotive initial and number, axle and journal if applicable, and reason for inspection and defect, if any found.
- Amtrak instructions regarding authorization to hold or delay train, including reason.
- Delays caused by operating with one engineer.
- Delays caused by late General Track Bulletins.
- If the conductor manually changes electronic time, an explanation of the reason for change must be included within the EDR.

Reporting is required on all trips, including special trains, deadhead moves and trains terminated short of destination.

**Signal Awareness Forms**

Passenger train conductors and crew members are exempt from special instructions Item 43 unless they are in the controlling unit or the cab room of the controlling cab car and there is more than one crew member in the controlling unit or cab room of the controlling cab.

**10. Storage of Cars Within Restricted Limits or Yard Limits In Non-Signaled Territory**

Within restricted limits or yard limits in non-signaled territory, the Main Track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on Main Track in such territory, they must be protected by track warrant or track bulletin. This does not modify requirements of GCOR 6.13 or 6.14.

**11. Shunting the Track**

**Commodities Insulating Track**

Employees should be alert for insulating commodities such as clay, chips, oil, etc. on top of rails, or leaves covering the rails. This condition could possibly insulate the track and cause loss of train shunt. Such conditions should be promptly reported to the train dispatcher. When conditions are reported, trains must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**Movements Consisting of Less Than 12 Axles**

In CTC, manual interlocking, or ABS territory, a crew member must inform the train dispatcher/control operator, of train/engine movement consisting of less than 12 axles so that protection against loss of shunt can be provided. Train, engine and other such movements consisting of less than 12 axles must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**12. Switch Control/Monitoring Systems**

**12(A). Turnouts Equipped with Two Switch Machines (Movable Point Frogs/Swing Nose Frogs/Derails)**

Locations where turnouts are equipped with two switch machines will be identified under individual subdivision special instructions. When dual control switches equipped with two switch machines are operated by hand, the switch machine which operates the switch points and the switch machine which operates the movable point frog, swing nose frog, or derail must both be placed in hand operation.

GCOR/MWOR 9.13.1 applies at all locations where turnouts are equipped with two switch machines (movable point frogs/swing nose frogs/derails).

**12(B). Remote Control Power Switch (RCPS)**

Remote Control Power Switch (RCPS) allows the train dispatcher to request that the switch be lined and monitor switch position in non-signaled territory. The location of RCPS will be designated in the timetable. RCPS limits are designated by signs and the limits must not be occupied unless authorized. Track authority will authorize use of RCPS limits at each end of authority in the following manner:

"Switch - Yes" indicates that the authority includes the RCPS limits designated by signs in the field.
"Switch - No" indicates that the authority does not include RCPS limits and movement must stop short of sign designating RCPS limits.

If the train dispatcher cannot line the remote control power switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the train dispatcher must instruct the employee to operate the switch by hand. Movement may then proceed to that switch. Before passing over the switch, movement must stop and the employee must operate the switch by hand.

To operate a remote control power switch by hand:

- Obtain permission from the train dispatcher.
- Unlock the switch lock.
- Place the selector lever in the HAND position.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until at least one unit or car has passed over the switch.

The following information and instructions apply when the RCPS system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status to indeterminate/out of correspondence.

When an alert is received, the train dispatcher must promptly determine the location of the train with authority over the alerting switch and do the following:

- If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching (less than 7 miles) the alerting switch, the train dispatcher must instruct the crew to stop their train, consistent with good train handling, if possible, before traversing switch.
- If the train is not closely approaching the alerting switch, but it is more than seven miles from alerting switch, the train dispatcher is required to issue a new authority to the affected train that voids the authority over the alerting switch and ends at the alerting switch.

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**RCPS Position Indicator**

| | |
|---|---|
| Green | Switch lined and locked for Main Track movement |
| Yellow | Switch lined and locked for movement to or from Main Track |
| Dark (not illuminated) | Switch not locked, or selector lever in "hand" position. Contact train dispatcher and obtain permission to hand operate the dual control switch. |

RCPS position indicator lights do not authorize movements to occupy the limits between the RCPS signs governing the switch.

**12(C). Switch Point Monitoring System (SPMS)**

Switch Point Monitoring System (SPMS) is a program that will alert the dispatcher that a Main Track switch may not be properly lined for an approaching train in non-signaled territory. SPMS locations will be designated in the timetable.

The following information and instructions apply when the system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status from the normal position. Alerts will occur if a switch is reversed or its position becomes unknown (indeterminate).

Exception: An alert will not occur for trains operating with a proceed track authority (box 2) for switches located in the "from" and "to" locations of their authority.

When an alert is received, the train dispatcher must do the following:

- Promptly determine the location of the train with authority over the alerting switch. If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching the alerting switch, the train dispatcher may notify the crew verbally using the appropriate verbiage in the dialog box presented.
- If the train is not closely approaching the alerting switch, the train dispatcher is required to issue a new track authority to the affected train that restricts authority to the alerting switch.

  Note: Work between (box 4) authority for trains must end at any indeterminate switch. Authority may be issued beyond the indeterminate switch only after employee has verified that the switch is in the normal position by performing an on-ground inspection.

The dispatcher is prohibited from issuing two work between (box 4) track authorities to the same train that make the limits of authority end-to-end.

For example, do not issue track authority #1 with work between (box 4) from Anna to Bess and track authority #2 with work between (box 4) from Bess to Cloy.

Information received from the Switch Point Monitoring System must not be used to change the position of a Main Track switch that is protected by a track authority under the Protect Open Switch rules (GCOR 8.3, MWOR 8.3, and TDOCOM 42.19).

When a train crew is notified to be prepared to stop at an alerting switch, (either verbally or with a track authority), the train must not proceed over the switch until a crew member inspects the switch from the ground. The position of the switch must be reported to the train dispatcher as soon as possible after the inspection.

Maintenance of Way (MW) employees must have permission before operating an equipped Main Track switch. When Form B authority is in effect, the foreman or employee(s) working under the Form B must notify the dispatcher when opening any equipped Main Track switch(es).

When a MW employee receives a track authority with "Be prepared to stop at (location) until known to be in the normal position, the dispatcher must not indicate the switch to be "normal" unless the reporting employee has traversed the switch in Main Track to Main Track movement with on-track equipment and is physically at the switch.

The dispatcher must not "normal" an alerting switch until it has been inspected by a field employee.

**12(D). Independently Controlled Switches (ICS)**

Independently Controlled Switches are dual control switches of a crossover which, under certain conditions prescribed by the rules, may be operated independently. At locations identified in the timetable as having independently controlled switches, Maintenance of Way employees may request control operator permission to operate one end of a crossover for maintenance or testing purposes only.

**12(E). Protect Open Switch (POS)**

In non-signaled territory, track warrant authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

In ABS territory, track warrant work between authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

(Note: A train stopped short of the switch for topographical reasons, i.e., road crossings, grade considerations, etc., may be considered as stopped at the switch for application of this process).

**13. In Effect on BNSF Railway**

- General Code of Operating Rules, Eighth Edition, in effect April 1, 2020
- Maintenance of Way Operating Rules, in effect January 1, 2018.
- Air Brake and Train Handling Rules, in effect February 1, 2018.
- Train Dispatcher's and Control Operator's Manual, in effect November 1, 2020.
- TY&E Safety Rules, in effect August 4, 2021.
- Maintenance of Way Safety Rules, in effect August 4, 2021.
- Employee Safety Rules, in effect August 4, 2021.
- Mechanical Safety Rules, in effect August 4, 2021.
- United States Hazardous Material Instructions for Rail in effect June 1, 2021.
- 2020 Emergency Response Guidebook.
- BNSF Chicago Passenger Operations Manual No. 5, in effect May 14, 2021.
- Canadian Rail Operating Rules, in effect October 14, 2015. (For use in Canada only.)
- Remote Control Operating Instructions, in effect December 14, 2016.
- PTC Interoperability Instructions, in effect September 1, 2019 (For use by BNSF TYE crews operating on PTC interoperable routes.)
- BNSF Seattle Passenger Operations Manual No. 2, in effect April 1, 2019.

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**In Effect While Operating on Foreign Railroads:**
The following System Special Instruction items must be complied with by BNSF crews operating over a foreign railroad:

- Item 6. Work Order: Instructions for Reporting Work
- Item 27. Cars Set Out Bad Order
- Item 28. Grade Crossing Accidents
- Item 35. Switching and Handling Business Cars
- Item 43. Signal Awareness/Position of Switch Form
- Item 45. Network Operations Center Notification Requirements
- Item 49. Responsibilities and Certification
- Item 50. Rail Security Sensitive Material (RSSM) Instructions Chain of Custody Documentation for Rail Sensitive Material

**Detour Train Documents**

- When a foreign railroad detours trains on BNSF, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- When BNSF detours trains on a foreign railroad, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- The train list and hazardous material information must remain on the lead locomotive at crew change points.
- Detoured train documentation is not interchanged to the handling road's computer system.

**14. General Code of Operating Rules, BNSF Amendments and Supplements**

**GCOR 1.10**—is changed to read:

**GCOR 1.10 Games, Reading, or Other Media**

Employees on duty must not:

- Play games
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices)
  or
- Read magazines, newspapers, or other literature not related to their duties when:
  - On a moving train or locomotive unless deadheading in the cab of a non-controlling locomotive
  - Any crew member is performing safety related activities
  or
  - It would delay or interfere with required duties.

When use is not permitted, magazines, newspapers or other literature not related to duties must be stowed out of sight.

**GCOR 1.17 Hours of Service, Supplemental Instruction**

When reporting hours of service, time spent waiting for deadhead transportation must not be counted when determining time on-duty for hours of service purposes when relieved of all duties.

**GCOR 1.37 Open Top Loads**—is changed to read:

Flat cars, open top cars, and open TOFC/COFCs with loads which protrude beyond the car ends or if shifted, would protrude beyond the car ends must not be placed in trains next to the following if train length and makeup permit:

- Occupied outfit car
- Passenger car
- Engine
- Caboose
- Shipment of automotive vehicles or machinery that is not fully enclosed

This restriction does not apply to cars equipped with chains or cables securing the load to the car.

**GCOR 1.43 Stopped in Tunnels**—Under A. Engine or Train Stopped in Tunnel:

That part reading:

4. Apply hand brakes to prevent movement in case the air brakes leak off.

Is changed to read:

4. Secure required number of cars to prevent movement in case the air brakes leak off.

**GCOR 1.46 Duties of Yardmasters**—the following is added:

At the end of each shift, the yardmaster must make a transfer, filling in all the required information, including:

- All grade crossing warning devices out of service
- Any undelivered Track Bulletin Restrictions
- Any tracks, switches, or other infrastructure out of service
- Any other conditions or issues which may affect the safe and efficient management of the yard.

If the office has more than one shift, the yardmaster being relieved will remain until the relieving yardmaster understands, accepts, and acknowledges the transfer.

The transfer must be documented in Yardmaster Transfer in YDS. If TSS is not available, the transfer must be documented in writing and maintained for 30 days.

**GCOR 1.47 Duties of Crew Members**—Item C, All Crew Members' Responsibilities, the following is added to Item 2:

Crew members must not use binoculars or similar devices to determine the position, aspect, or indication displayed by a fixed signal.

**GCOR 1.48 Time, Supplemental Information**

Dial 8-998-8463, 8-WWV-TIME, or 8-435-6000 to obtain coordinated universal time signal.

**GCOR 2.14.1 Verbally Transmitting and Repeating Mandatory Directives**

**Supplemental Instruction**

Apply the following when verbally transmitting and repeating a mandatory directive identified by numbers separated with a hyphen:

- State the first number, then state or spell each digit separately for that number.
- State the hyphen as "dash".
- State the second number, then state or spell each digit separately for that number.

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5."

Employees repeating the initial transmission of the mandatory directive must repeat the number in this same format.

**Supplemental Information**

When authorities are repeated precisely as they are transmitted, the Control Operator / Train Dispatcher is able to follow the words when checking the repeat for accuracy. When authorities are not repeated properly, it is more difficult for the Control Operator / Train Dispatcher to follow the repeat process.

Employees are expected to repeat authority precisely as it is recorded on the authority form. All words which are on the form or shown in the examples must be repeated in the proper order and without adding or deleting words.

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Employees will be given three chances to repeat an authority properly. If unable to repeat properly after three attempts, the Control Operator / Train Dispatcher will stop the authority and the employee will not be given additional authority until a supervisor has been contacted.

**GCOR 2.14.2**—The following rule is added:

**GCOR 2.14.2 Before Reporting Clear of Authority Limits**

Before a field employee reports clear or releases a portion of authority limits, and the Train Dispatcher/Control Operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the Train Dispatcher/Control Operator.
- The Train Dispatcher/Control Operator will have the required form or computer screen displayed for data entry and confirmation.
- The Train Dispatcher/Control Operator and employee will carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct.

**GCOR 2.21**—is changed to read:

**GCOR 2.21 Electronic Devices**

This rule outlines the requirements for use of electronic devices. As used in this rule, the following definitions apply:

**Electronic Device**—means an electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety-related task.

**Railroad Operating Employee**—means an individual who is:

- Engaged in or connected with the movement of a train including a hostler,
- A train employee providing commuter or intercity rail passenger transportation,
  or
- Subject to hours of service governing train service employees.

The use of any electronic device is prohibited if that use would interfere with an employee's performance of safety-related duties.

**A. Personal or Railroad-Supplied Electronic Devices**

Personal or railroad-supplied electronic devices may be used as necessary:

- To respond to an emergency situation involving the operation of the railroad
- To respond to an emergency encountered while on-duty
- As a communication device in the event of radio malfunction
- To refer to a railroad rule, special instruction, timetable or other directive using the digital storage and display function while inside the controlling cab of a locomotive, train or on-track equipment after there has been a job safety briefing and all crew members agree that it is safe to do so.

Other than railroad operating employees may use electronic devices in the body of a business car or passenger train when it will not interfere with an employee's performance of safety-related duties.

Except as otherwise authorized, the use of any audio or video recording device to record communications by or between employees is strictly prohibited without the prior knowledge and express consent of all parties to the communication.

**B. Personal Electronic Devices**

Except when deadheading in other than a controlling locomotive, railroad operating employees on-duty (including supervisors) must have each electronic device turned off and stowed out of sight with any earpiece removed from the ear when:

- On moving rolling equipment or on track equipment unless device is being used to reference a railroad rule, special instruction, timetable or other directive,
- Any member of the crew is on the ground performing safety-related duties,
  or
- Any employee is assisting in preparation of the train, engine(s) or on-track equipment.

A railroad operating employee may use an electronic device when:

- Rolling and on track equipment is stopped,
- A job safety briefing is conducted with all crew members to confirm that it will not interfere with any safety-related or required duty,
- No member of crew will foul any track.

When device is not in use it must be off and stowed out of sight.

A personal stand-alone camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- A job safety briefing is conducted among all crew members and any other individuals in the controlling cab of moving equipment,
- It is turned off immediately after the photograph has been made;
- It is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

**C. Railroad-Supplied Electronic Devices**

After a job safety briefing including all members of the crew determines railroad-supplied devices can be used safely, railroad operating employees may use such devices to send or receive work related information with:

- Railroad supervisors
- Railroad customers
- Railroad dispatchers
- Railroad customer service employees
  or
- Other railroad employees as necessary in the performance of their duties.

Railroad operating employees must not use a railroad-supplied electronic device for purposes other than which it was intended or while:

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- Operating the controls of a moving locomotive unless device is being used to reference a railroad rule, special instruction, timetable or other directive.
- On the ground within 4 feet of any track.
- On the ground and engaged in an active switching operation.
- Riding rolling equipment during a switching operation.
- At the controls of the locomotive and any other employee is assisting in the preparation of the train, engine(s), or on-track equipment, including testing of railroad equipment or brakes.
- Inside the controlling cab of a locomotive, train or on-track equipment, unless there has been a job safety briefing and all crew members agree that it is safe to do so.
- Verbally obtaining or releasing mandatory directives when railroad radio communication is available.

A railroad-supplied electronic device may be used to take a photograph pertaining to authorized business purposes that include a potential safety hazard, violation of a rail safety law, regulation, order or standard; or conditions that prevent a train crew from accessing and performing work at a customer facility provided that:

- Train is stopped.
- A Job Safety Briefing is conducted including all members to confirm that it is safe to do so.
- If the crew member taking the photograph is on the ground they cannot be within 4 feet of any track.

**GCOR 4.3 Timetable Characters, Supplemental Instruction**

A.....Automatic Interlocking
B.....General orders, notices, and circulars
C.....Radio communication
g .....Gate, normal position against conflicting route
G.....Gate, normal position against this subdivision
J.....Junction
M .....Manual interlocking
P.....Telephone
R.....Restricted Limits
S.....Railroad crossing protected by permanent Stop sign
T .....Turning facility
U.....Railroad crossing not protected by signals or gates
X.....Crossover
X(2).....Multiple crossovers
Y.....Yard Limits

**GCOR 5.3.3 Signal Disappearance**—is changed to read:

If a person disappears who is giving the signal to back or shove a train, engine, or car, or the light being used disappears, employees must stop movement.

**GCOR 5.4.2 Display of Yellow Flag**—"Less than Two Miles Ahead of Restricted Area" under "A. Restriction is in Effect" is changed to read:

**Less than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, junction, or another area or if restriction is on a siding, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**GCOR 5.4.6 Display of Flags Within Current of Traffic**—this rule is canceled.

**GCOR 5.4.8 Flag Location**—the first paragraph is changed to read:

Flags will be displayed on all Main Tracks and sidings leading to the track affected.

**GCOR 5.5 Permanent Speed Signs, Supplemental Instruction**

Reduced speed limits may be designated by Advance Warning sign (diagonally upward), Reduce Speed sign (rectangle) and Resume Speed sign (vertical).

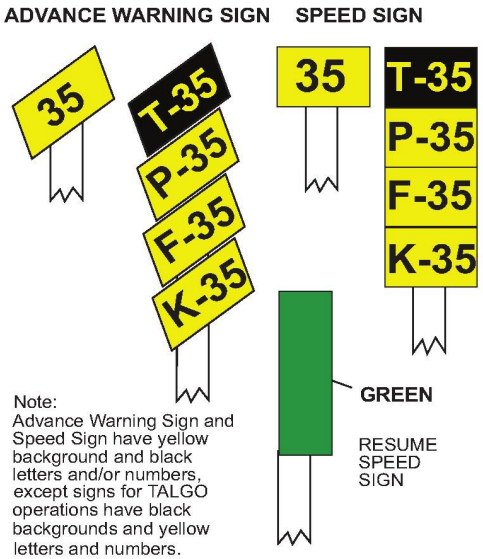
The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction. Signs reading "K-END" indicate the end of Key Train municipal area limits. Resume speed signs are not displayed at the end of Key Train municipal area limits.

Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision.

Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.

These signs, as illustrated, apply to train and engine movements as follows:




Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures preceded by the letter K apply to Key Trains.

Figures not preceded by a letter apply to all trains.

**GCOR 5.8.1 Ringing Engine Bell**—the following is added as a fourth bullet:

- When whistle signal (7) is required.

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**GCOR 5.8.2 Sounding Whistle**—the Indication for Sound (8) is changed to read:

| Sound | | Indication |
|---|---|---|
| (8) | — o | Regardless of any whistle prohibitions:<br>Approaching men or equipment or other individuals on or near the track.<br>After sounding initial warning for men or equipment or other individuals, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment or other individuals.<br>Whistle warning is not required:<br>• When there is an adjacent track and men or equipment or other individuals are beyond the farthest rail of the adjacent track.<br>• For members of the same crew associated with movement of their engine unless necessary to warn or alert a crew member<br>Do not sound whistle in designated mechanical servicing and repair facilities, unless for an emergency or when approaching roadway workers. |

**GCOR 5.8.4 Whistle Quiet Zone**—the following is added:

An employee may sound the train horn to provide warning to crews on other trains in an emergency situation, vehicle operators, pedestrians, trespassers or animals if, in the employee's sole judgment, such action is appropriate to prevent imminent injury, death, or property damage. Train crews are not restricted from sounding the horn when:

- There is an emergency situation.
- A wayside horn system (WHS) is malfunctioning.
- Active grade crossing warning devices malfunction.
- Grade crossing warning systems are out of service.
- Supplemental or alternative safety measures are not compliant.
- Needed for purposes other than highway-rail crossing safety, for example, to announce the approach of a train to roadway workers.

All other whistle and bell requirements remain in effect.

**GCOR 5.9.1 Dimming Headlight**—is changed as follows:

1. is changed to read:
   1. At stations and yards where switching is being done. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).
3. is changed to read:
   3. When stopped on the main track waiting for an approaching train. However, when stopped in block system limits, turn the headlight off at the radio request of the crew of an approaching train until the head end of the train passes. After head end of approaching train passes, turn headlight on bright while the train is passing.
4. is changed to read:
   4. When approaching and passing the head end of a train at night. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).

**GCOR 5.11 Engine Identifying Number**—the following exception is added:

Exception:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by train symbol.

**GCOR 5.11 Engine Identifying Number, Supplemental Instruction**

Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines:

SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines:

CSXT, CSX and CSX Transportation.

Where PTC is in effect, passenger trains operated from a cab control car on the leading end of the movement will be identified by the cab control car initials and number, adding the direction when required.

Metrolink engines or cab control cars with no initials stenciled on the side will be identified as SCAX units.

**GCOR 5.13 Blue Signal Protection of Workmen**

**Item B. How to Provide Protection**—is changed as follows:

On a Main Track is changed to read:

**On a Main Track.** A blue signal must be displayed at each end of the rolling equipment and, if the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Section titled **On Other than a Main Track** is changed as follows:

The following is added after item 1:

Use the following sequence when applying blue signal protection:

a. Line and lock the switch
b. Display blue signal at or near the switch and;
c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at or near the switch
c. Remove the lock from the switch and replace the hook or hasp, if equipped.

Item 2 is changed to read:

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
   a. Positioned at least 150 feet from the rolling equipment to be protected.
   or
   b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.

   Use the following sequence when applying blue signal protection:
   a. Lock the derail in the derailing position
   b. Display blue signal at the derail and;
   c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

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Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at the derail
c. Remove the effective locking device from the derail and ensure derail is in the proper position.

The following is added to the end of item 3:

After the switch operator informs the employee in charge of workmen that switches have been lined against movement onto track and devices controlling the switch have been secured, display required blue signals on controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signals from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Employee in charge to notify the switch operator when it is safe to remove switch-locking devices.

**Item C. Blue Signal Readily Visible to Engineer**—Item 3 is changed to read:

3. The engine must not be moved. The controls must not be changed unless directed by individuals who placed the blue signal protection.

**GCOR 6.3 Main Track Authorization**—the paragraph titled Joint Authority is deleted, and the following is added:

**Overlapping Limits**
When a train receives track and time, track warrant or track permit authority joint with an employee the train must not occupy the overlapping limits until permission is received to enter the overlapping limits from the employees listed on the authority.

**GCOR 6.5 Shoving Movements**—is changed to read:

Shoving cars or engines ahead of an engine must be performed by an employee visually observing the intended route while communicating instructions with the employee controlling the engine to ensure safe operation.

A GCOR qualified employee must protect the shove movement by:

- Visually observing the leading end of the movement to determine that switches and derails are properly lined, and the route is clear for the intended movement.
- Communicating instructions including a distance that specifies where the movement must be prepared to stop. (e.g., stop for misaligned switch, controlling speed for conditions, etc.)

Employees are encouraged to communicate additional information related to the shoving movement (e.g., close clearance conditions, stop signals, authority limits, etc.)

When communicating distances:

- Use 50 feet as a standard for one car length
- Provide instructions that allow for control of the movement (e.g., controlling speed for conditions, etc.)
- Use a number of car lengths that is no greater than the portion of track that has been determined to be clear, and represents where movement must stop for improperly lined switches/derails, on-track equipment, etc.

When communicating with a radio:

- The employee observing the leading end of the movement must inform the employee at the controls of the engine who is protecting the movement and how the protection will be provided (e.g., Conductor Smith on the ground, riding equipment, riding in vehicle, camera, etc.), and specify a distance.
- Direction will be described in relation to the front of the controlling locomotive (F stencil). Use the following terms:
  - "Ahead" to move forward
  - "Backup" to move backward
  - "Stop" to stop the movement

  Do not use terms such as "Good For", "Shove", Bring 'em this way", "That'll do", etc., in place of "Ahead", "Backup" or "Stop".

The following are required of the employee controlling the engine:

- Before beginning a shove movement, must know who is protecting the movement and how protection will be provided
- Before beginning a shove movement, must repeat by radio the instructions received from the employee providing protection.
- When moving, must verbally acknowledge radio instructions by repeating the distance communicated when more than four cars.
- Movement must be stopped within half of the distance specified unless additional instructions are received.

Employees involved in the shove movement must not engage in any activity unrelated to the shove. (e.g., unrelated communication, operating a switch not part of the intended route of the shove, etc.).

An employee is not required to be in position to observe the leading end of the movement when:

- Relieved by local instructions for tracks equipped with shove lights/ cameras.
- Relieved by special instructions specific to tracks involved.
- During GCOR 6.6 Back Up Movements.
- During pullout moves within an activated Remote Control Zone (RCZ).
  or
- Moving cars only the distance necessary (not exceeding 5 car lengths) to operate an uncoupling lever for the purpose of kicking cars. It must first be verified that the track is clear and switches and derails are lined for the movement.

When cars or engines are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.

When engaged in snow plow operations:

- One common authority may be used by both Maintenance of Way employees and the train crew when all employees are on the equipment.
- Maximum timetable speed applies unless a higher speed is authorized by the employee in charge.
- Employees are relieved from providing visual protection for snow plow being shoved.

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**GCOR 6.5.1 Remote Control Movements**—is changed to read:

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading engine in the direction of movement. The remote control operator protecting the shove movement must be the controlling operator and in position to visually observe the direction the equipment moves before initiating the movement.

Exception: After conducting a job briefing with the employee who will be protecting the shove, the controlling operator is not required to transfer control when:

- Stretching a track to ensure couplings are made.
- Separating equipment to make coupler adjustments.
- Shove is protected by a non-equipped individual, such as a utility person

When requesting pin slack, the employee uncoupling the equipment is not required to be the controlling operator

**Pullback/Stop Protection (PSP)**
When Remote Control Zone is equipped with pull back/ stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden.

**Relief of Providing Protection**
The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when a qualified employee who is a part of the RCO crew has performed the following:

1. Verify switches/derails are known to be properly lined.
2. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.
3. Once steps 1 and 2 are completed and all crew members have been briefed, the zone may be activated.

Note: These steps must be repeated each time the remote control zone is activated.

**GCOR 6.6 Back Up Movements**—is changed to read:

After obtaining permission from the train dispatcher, a train may back up on any Main Track or on any track where CTC is in effect under the following conditions:

1. The train dispatcher must verify the following within the same or overlapping limits:
   a. Another authority is not in effect unless conflicting movements are protected.
   b. A track bulletin Form B is not in effect.
   c. A Main Track is not removed from service by a track bulletin.
   d. Permission to leave a switch in the reverse position has not been granted.
2. The crew ensures movement will not:
   a. Exceed the limit of the train's authority.
   b. Exceed the train's length.
   c. Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
   d. Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before requesting or making a back up move, a job safety briefing between all members of the crew must be conducted that confirms:

- Train is intact, verified either visually or by determining that brake pipe continuity exists using end of train device or distributed power telemetry.
- Distance to be shoved. (Note: Train must not move outside of authority limits.)
- Distance from the end of the train to the end of authority limits is sufficient to accomplish the planned back up movement (E.g. 30 cars from the end of the rear car to next controlled signal or 30 cars from the end of the rear car to MP 30, where track warrant authority ends, etc.).
- Location of nearest affected road crossing in direction of movement.
- Movement will not be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before permission is granted, a job safety briefing between a crew member and the train dispatcher or control operator must determine what track authority is needed to accomplish the planned movement. If additional track authority is necessary to make the 6.6 movement, a crew member must request additional authority.

When movement is made under these conditions, Restricted Speed does not apply.

**GCOR 6.7 Remote Control Zone, A. Entering Remote Control Zone**—is changed as follows:

The 2nd paragraph is changed to read:

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated.

The 3rd paragraph is deleted in its entirety.

**GCOR 6.11 Mandatory Directive**—that part reading:

Indicate "VOID" on mandatory directive form when:

Is changed to read:

Where paper copies are used, indicate "VOID" on mandatory directive form when:

**GCOR 6.20 Equipment Left on Main Track**—A. Portion of Train Left on Main Track

That part reading:

- Set a sufficient number of hand brakes to keep the detached portion from moving.

Is changed to read:

- Secure a sufficient number of cars to keep the detached portion from moving.

**GCOR 6.21.2 Water Above Rail**—is changed as follows:

The 2nd paragraph is changed to read:

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, the NOC Mechanical Help Desk must authorize the movement.

**GCOR 6.21.3 Track Obstruction / Unusual Conditions**—is changed to read:

When a train is advised in the words, "Between (location) and (location) be governed by Rule 6.21.3", within the specified limits trains must:

- Not exceed 20 MPH HER,
  and
- Be prepared to stop for slides, rocks, washouts, debris or obstructions on the track.

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Train crews are reminded to regulate speed where visibility is limited (ex. curvature of track, lighting, weather, etc.) and must report to the train dispatcher conditions encountered, or if none are encountered, within the limits.

**GCOR 6.21.4**—The following rule is added:

**GCOR 6.21.4 Activation of Shifted Load or Dragging Equipment Detector**

When a train or engine actuates a shifted load or dragging equipment detector, and an adjacent Main Track or controlled siding may be obstructed, immediately:

- Warn other trains by radio, stating the exact location and status of the train and repeat as necessary.
- Place lighted fusees on adjacent Main Tracks and controlled sidings.
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

Warning to other movements is no longer necessary when:

- It is known adjacent Main Tracks and controlled sidings are not obstructed.
  or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent tracks.

**Train on Adjacent Track**
A train on an adjacent track that receives radio notification must pass the location specified at Restricted Speed and be prepared to stop for obstructions on the track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

**GCOR 6.22 Maintaining Control of Train or Engine**—A new second paragraph is added:

When following a train or engine on a Main Track or controlled siding, crew members must ensure they stop at least 400 feet behind the train or engine, if length of train permits.

**GCOR 6.23 Emergency Stop, Severe Slack Action, or Actuation of Shifted Load or Dragging Equipment Detector**—the part titled "**Inspection of Cars and Units**" is changed to read:

Visual inspection must ensure no derailment or damage has occurred to cars, units, equipment or track to the end of the train. If physical characteristics such as a bridge with no walkway prevent complete inspection, the train may be moved the distance necessary not exceeding 5 MPH to complete the inspection. Stop movement immediately if excessive power is required to start or keep the train moving and discontinue further inspection until a safe alternative to complete inspection is identified by either a job safety briefing or coordination through the train dispatcher.

Exception—The following trains (excluding key trains) are relieved of visual inspection required by emergency brake application if no severe slack action occurred while stopping and brake pipe pressure is restored as indicated by the caboose gauge, end-of train telemetry device (ETD) or distributed power telemetry:

- Solid loaded bulk commodity train,
- Train consisting entirely of doublestack and/or articulated spine car equipment,
- Any train where emergency application occurs above 20 MPH, or
- Any train that is 5000 tons or less.

Train types in the exception are relieved of further visual inspection after a defect is corrected, such as recoupling an air hose, and brake pipe pressure is restored as indicated by the caboose gauge, end-of-train telemetry device (ETD) or distributed power telemetry.

**GCOR 6.26 Use of Multiple Main Tracks, Supplemental Instruction**

Unless otherwise indicated in the individual subdivision special instructions, when using Main Tracks in westward or southward timetable direction, they will be numbered consecutively from right to left beginning from Main 1. When using in eastward or northward timetable direction, they will be numbered from left to right beginning with Main 1.

**GCOR 6.29.1 Inspecting Passing Trains**—"Ground Inspections" is changed to read:

**Conducting Inspections**

When a train is stopped and is met or passed by another train, a member of the crew must inspect the passing train. All crew members must remain alert and attentive while the inspection is being conducted.

If inspecting from the ground:

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.

**GCOR 6.32.2 Crossing Warning Devices (Highway/ Pathway - Rail Grade Crossings), Supplemental Instruction**

In the application of this rule, a crossing having a broken gate(s) is to be considered as having working devices when the balance of the automatic warning devices are seen to be working. Movement may proceed over the crossing at 15 MPH without stopping.

**GCOR 7.6 Securing Cars or Engines**—is changed to read:

Do not depend on air brakes to hold a train, engine or cars in place when left unattended. Engineer and conductor are jointly responsible, through a job briefing, to ensure equipment left unattended is properly secured and a sufficient number of cars have hand brakes applied to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, secure enough cars by applying hand brakes to prevent any remaining cars from moving.

**GCOR 7.7.1 Gravity Switch Moves**—is changed to read:

A gravity switch move is permitted only at locations where specifically indicated by individual subdivision special instructions or when approved by a supervisor due to circumstances such as mechanical failure, etc.

Before performing a gravity switch move, crew members must fully understand the intended movement. They must verify that the track is sufficiently clear and that switches and hand brakes are in working order.

When performing a gravity switch move:

- Not more than five cars may be handled at one time.
- Sufficient hand brakes must be manned by crew members to insure that the movement can be controlled and stopped.
- Using the hand brake on cars with shiftable loads must be avoided.
- Cars must not be allowed to couple to other equipment.

**GCOR 7.12 Movement Into Spur Tracks**—is deleted entirely.

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**GCOR 8.9.1 Testing Spring Switch**—That part reading:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop.
   - Stop and Proceed.

   or
   - Restricted Proceed.

Is changed to read:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop
   - Stop and Proceed
   - Restricting

   or
   - Restricted Proceed

**GCOR 8.19 Automatic Switches**—the following paragraph is added:

In non-signaled territory, when movement continues beyond an automatic switch signal displaying a Stop indication, train must move at Restricted Speed for two miles or until leading wheels pass the next automatic switch signal or opposing distant signal.

**GCOR 9.8 Next Governing Signal**—is changed to read:

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

This rule does not apply when a rule or previous signal indication requires movement at restricted speed..

**GCOR 9.9 Train Delayed Within a Block**—is changed as follows:

B. CTC or Manual Interlocking Limits is changed to read:

B. CTC or Manual Interlocking Limits

Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

**GCOR 9.11 Movement from Signal Requiring Restricted Speed**—is changed to read:

When a train passes a signal requiring movement at Restricted Speed, the train must move at Restricted Speed until its leading wheels have passed the next governing signal. When a next governing signal does not exist, trains operating on the Main Track must move at Restricted Speed for two miles or until leading wheels pass the opposing distant signal.

**GCOR 9.15.2 Clearing Track Permits**—the following 4th bullet is added:

- Position of hand operated Main Track switches.

**GCOR 10.1.1**—The following rule is added:

**GCOR 10.1.1 Leaving the Main Track**

Unless authorized by track and time, a crew member must notify the control operator when the train clears the Main Track unless a crew member is in position to prevent a following movement from passing.

**GCOR 10.3, Track and Time**—the instructions inside the box are changed to read:

| |
|---|
| Track and time does not authorize trains to occupy the Main Track within automatic interlocking limits. |

**GCOR 10.3 Track and Time, Supplemental Instruction**

**Requesting Track and Time**

The employee requesting track and time will state name, occupation, location and train or other identification. The employee will copy the authority granted on the form provided for that purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with "That is correct." The train must not move until the engineer understands the track and time granted.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing track and time, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator "That is correct," the employee must not occupy the track. The employee requesting track and time must contact the control operator as soon as possible and confirm with the control operator that the track and time was not received.

**GCOR 13.1.4 Cab Signals Cut In and Out**—is changed as follows:

The following sentence is deleted from the last paragraph:

If the device was not tested previously, the engineer must make a departure test prior to entering ACS territory.

The following is added after the last paragraph:

Note: Partial cut out requirements do not apply to engines not so equipped.

**GCOR 13.3.1 Cab Signal and Block Signal Do Not Agree**—the exception is deleted:

Exception—When the train dispatcher's instructions require the train to proceed at Restricted Speed, the train must comply with the train dispatcher's instructions regardless of cab signal indication.

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**GCOR 13.3.3 Movement with an Inoperative Cab Signal Device**—is changed to read:

When it is determined the cab signal device is inoperative, the train may proceed according to block signal indications. However, the train must not exceed 40 MPH until it reaches a point where a crew member can report the defect to the train dispatcher.

The train dispatcher will establish an absolute block in advance of the train.

**GCOR 14.3 Operating With Track Warrants**—is changed as follows:

The following is added to Items 1 and 2:

The location of the specific point must be indicated on the track warrant form.

The following last paragraph is added:

**After Arrival Authority**

When track warrant requires "After Arrival" of another train, the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the meeting point.

**GCOR 14.7 Reporting Clear of Limits**—the following paragraph is deleted:

When a hand operated switch is used to clear the Main Track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

**GCOR 14.7 Reporting Clear of Limits, Supplemental Instruction**

**Reporting Clear/Releasing Track Warrants**

Engineer and conductor are jointly responsible, through job briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant.

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Engineer and conductor will communicate with the train dispatcher.
- Communication will use the following format:

Conductor will state: "Conductor (Name), locomotive initial, number, (direction), regarding track warrant (Number), reports clear of (mile post/location) (Provide switch briefing when required) - Over."

Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct? - Over."

Engineer will state: "Engineer (name), (location) is correct. - Over."

**GCOR 14.9 Copying Track Warrants**

That part reading:

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

Is changed to read:

Where paper copies are used, the conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

**Item A. Transmitting Track Warrants**—is changed to read:

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.

3. The employee will repeat the preprinted and written information transmitted by the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following:

   "Track Warrant (number) to (engine ID) (direction) is OK at (time)(dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher,

   or

   If the track warrant includes after arrival, the dispatcher will state the following:

   "Track Warrant (number), to (engine ID) (direction) with after arrival of (engine ID) (direction) at (location) is OK at (time) (dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat the "After Arrival" information, OK time and dispatcher's initials to the train dispatcher.

   Note: The summary information in Items 1, 2, 3 and the after arrival information in Item 4 will be exempt from pronouncing and spelling numbers as indicated in GCOR 2.14.1, Verbally Transmitting and Repeating Mandatory Directives.

**Item B. In Effect**—the last sentence is changed to read:

Rules qualified employees may relay track warrants.

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**GCOR 14.10 Track Warrant in Effect**—is changed to read:

A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits. Before a train reports clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, a crew member must restore hand operated Main Track switches to normal position unless relieved by track warrant.

Employees reporting clear or releasing a portion of track warrant limits must state:

- Their name or other identification
- Track warrant number being released
- Limits being released

In non-signaled territory or double track ABS territory (outside of restricted limits or yard limits), a crew member will job brief with the train dispatcher about the position of main track switches and those switches operated are locked within the limits being released, referencing completion of the Position of Switch form or stating no entries required.

**Time Limit Shown**

If the track warrant shows a time limit, the train must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

**GCOR 14.11 Changing Track Warrants**—the last paragraph is changed to read:

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued showing, "Void Authority _____" and the number of the track warrant being changed.

**GCOR 14.13 Mechanical Transmission of Track Warrants, Supplemental Instruction**

**Mechanical Issuance**

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom,
- Computer generated line on the bottom listing the items checked is missing,
  or
- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

**GCOR 15.1 Track Bulletins, Supplemental Instruction**

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

**GCOR 15.2 Protection by Track Bulletin Form B**—the following are added:

**C. Stop Column**

When "STOP" is written in the Stop column, the train must not enter the limits unless instructed by the employee in charge. A red flag may be displayed at the beginning of the limits. A train within the limits at the time the track bulletin Form B takes effect, must not make further movement until instructed by the employee in charge.

**D. Entering Within Limits**

Before entering the track governed by the track bulletin Form B from any location other than the beginning of the Form B limits, obtain permission from the employee in charge.

**GCOR 15.2 Protection by Track Bulletin Form B**—that part reading:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. The employee in charge will use the following format to establish communication with the train:

Is changed to read:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. When possible, attempt must be made at least 2 miles in advance of the limits. The employee in charge will use the following format to establish communication with the train:

**GCOR 15.9 Mechanical Transmission of Track Bulletins, Supplemental Instruction**

Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

**GCOR 15.13 Voiding Track Bulletins**

**A. Voiding Track Bulletins Verbally**

That part reading:

Employee must repeat the information to the train dispatcher. If correct, the word "VOID" will be entered to indicate that portion is no longer in effect.

Is changed to read:

Employee must repeat the information to the train dispatcher. Where paper copies are used, if correct the word "VOID" will be entered to indicate that portion is no longer in effect.

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**GCOR 15.13.1**—The following rule is added:

**GCOR 15.13.1 Voiding General Track Bulletins or Restrictions**

A bulletin or restriction or an entire GTB may be voided by the train dispatcher communicating the following:

1. "Restriction (number) ____ reading ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" in the margin to the left of the restriction made void.

2. "General track bulletin No. ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" across the first page of the general track bulletin being voided.

**GCOR 18.3 Broken or Missing Seals**—that part reading:
Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the designated authority.

Is changed to read:

Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the PTC Desk.

**GCOR 18.4 PTC Cut Out**—is changed to read:
The PTC system may only be cut out or disabled when authorized by rule or when proper authorization is received.

When permitted by the Train Dispatcher, PTC Desk or other supervisor, PTC may be cut out for, but not limited to, the following reasons:

- It becomes defective, or
- It prohibits train movement that should be allowed.

When instructed to cut out PTC or to proceed without PTC functioning as intended, notify the train dispatcher of the reason and who authorized.

**GCOR 18.9 Use of Restricted Mode**—is changed to read:
Restricted Mode must be turned on before performing work events such as:

- Switching
- Pickups, setouts, etc.
- Loading/unloading of work trains under direction of MW Employee in Charge

After all work events have been completed, turn off Restricted Mode.

**GCOR 18.12**—The following rule is added:

**GCOR 18.12 Movements with Inoperative PTC System**
Immediately notify the train dispatcher and PTC Desk when the controlling locomotive's PTC system fails to initialize or becomes inoperative, except where PTC is suspended by mandatory directive.

When operating without the PTC system in an "Active" state, the following speeds will govern:

In signaled territory:
Passenger trains.....79 MPH

**GCOR 18.13**—The following rule is added:

**GCOR 18.13 Movements Without PTC**
Freight movements engaged in:

- Yard service (including switching, transfer, local, etc.),
- Assembly or disassembly of trains,
- Hostling locomotives, or
- Remote control operations,

may operate on PTC territory without PTC if the movement:

- Originates or terminates in a yard,
- Does not travel in excess of 20 miles on PTC territory in one direction,
- Does not exceed restricted speed while on PTC territory, and
- Train dispatcher is notified.

**GCOR Abbreviations**—the following abbreviations are added:

AS..... Absolute Signal
CNT..... Connection
EBCS..... Eastbound Controlled Signal
EE..... East End
EXO..... East Crossover
ICS ..... Independently Controlled Switch
NA..... Not Applicable
NBCS ..... Northbound Controlled Signal
NE ..... North End
NXO..... North Crossover
POS..... Protect Open Switch
PTC ..... Positive Train Control
RCPS ..... Remote Control Power Switch
RESTRN..... Restriction
RL..... Restricted Limits
RP ..... Release Point
SBCS..... Southbound Controlled Signal
SE..... South End
SPMS ..... Switch Point Monitoring System
SS..... Station Sign
SW-N..... Switch No
SW-Y ..... Switch Yes
SXO..... South Crossover
TFND..... Track Flags Not Displayed
TID..... Track Integrity Down
TIWS ..... Track Integrity Warning System
WBCS..... Westbound Controlled Signal
WE..... West End
WXO..... West Crossover

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**GCOR Glossary**—the following glossary terms are added:

**General Track Bulletin**
A notice containing track bulletin restrictions and other conditions affecting train movement.

**Hard Cut Out (PTC)**
A state of the PTC system when PTC cut out switches are placed in the cut out position.

**PTC Full Enforcement Mode**
The status of PTC when all the following conditions exist:

- The system state is Active,
- a colored track line (other than gray) exists beneath the leading end of the movement,
- maximum speed is displayed, and
- next target or "None" is displayed.

When these conditions are met, the PTC system is actively providing warning and enforcement.

**Soft Cut Out (PTC)**
A state of the PTC system resulting from selection of the cut out key on the PTC display.

**15. Currently Not Used**

**16. Currently Not Used**

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**17. PTC - Supplemental Information**

**Locomotive Consist**

At locations where locomotive consists are assembled for trains that will operate on PTC territory, a PTC-equipped, lead-qualified locomotive must be placed in lead position. At non-PTC originating locations, departure of a train that will operate on PTC territory without a PTC-equipped, lead-qualified locomotive in lead position, must be approved by the train dispatcher.

**PTC Readiness Verifications**

At locations where locomotive consists are assembled, conduct an initialization verification and departure test on the lead unit as soon as possible. The following steps can be conducted by any trained personnel with a PTC log-in. A GTB is not required to complete this process.

1. On the PTC display, select MENU 1, then select INIT.
2. When text box displays, "THIS WILL ERASE EXISTING TRAIN DATA DO YOU WANT TO CONTINUE?" select YES.
3. On the RAILROAD SELECTION screen, highlight BNSF and select ADD, then SUBMIT.
4. The display should indicate "PLEASE WAIT FOR SYSTEM CONFIGURATION". The TMC is now establishing a connection to the office.
5. If prompted to download or install new software, follow current software deployment instructions as outlined in track bulletin.
6. When the "PRESS KEY TO ACCEPT TERMS OR CANCEL" message is displayed, the office server has established a connection. Select CANCEL. If the Accept Terms screen does not display, there is a PTC issue preventing connection to the server. Contact PTC Desk for further instructions.
7. From Menu 1, select DEPART test and follow the prompts to complete the departure test. When conducting the test, ensure the automatic brake valve is placed in Suppression, and remains in Suppression until the test is complete. Placing the automatic brake valve into any position other than suppression may nullify functions required for efficient PTC system operation.

**Restricted Speed**

PTC does not enforce all requirements of GCOR 6.27 - Restricted Speed. When required to operate at Restricted Speed, PTC enforces a speed of 20 MPH.

**Unusual Conditions**

Any train experiencing a PTC Enforced Braking Event which results in an occupied locomotive stopping in a tunnel or other enclosed structure, in addition to current instructions, immediately place Enforcement Cut Out Switches located in the nose of the locomotive to the Cut Out position. If operating conditions allow, recover brake pipe and exit the location.

Notify Train Dispatcher and contact the PTC Desk immediately and be governed by their instructions.

**PTC Desk**

The PTC Desk may be contacted by radio, or telephone 817-593-5900. When necessary to troubleshoot PTC issues, contact should be established by a crew member located on the lead locomotive (when practical).

**18. Electronic Delivery of Information**

PTC initialized trains may receive the following electronically delivered directives:

- Form A track bulletins
- Form B track bulletins
- Crossing warning notifications
- Track warrants

Train crews are responsible for complying with electronically delivered directives when:

- Notified by the prompt on the PTC display,
- Contacted by the train dispatcher confirming receipt of the directive, or
- Directives(s) remain viewable on the PTC display.

When crew members responsible for complying with electronically delivered directives are not in the controlling locomotive (such as train service employees in passenger service), the engineer will communicate to those crew members the contents of new directives as soon as practical after the prompt is received and prior to reaching the directive location.

**Failure Mode**

Electronically and verbally delivered directives are viewable via the PTC display. If PTC status changes to a condition where electronic view of directives is not available on the PTC display, be governed as follows:

| Directive | Train Crew Action |
|---|---|
| **Authority** | |
| Authority has been delivered electronically. | Stop the train consistent with good train handling and contact the train dispatcher. |
| **Restrictions** | |
| No restriction has been electronically delivered while enroute. | Train may continue operating by observing restrictions included in the General Track Bulletin. |
| Restriction has been electronically delivered while enroute. | Contact the train dispatcher to verbally receive the restriction information before reaching the location of the restriction. |
| Unsure if a restriction has been electronically delivered, or unsure of the location of an electronically delivered restriction. | Stop the train consistent with good train handling and contact the train dispatcher. |

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**18. (A) PTC Territory**

Trains operating in a PTC active state may receive electronically delivered directives without verbal interaction with the dispatcher. (Note: this process does not apply to Form B Track Bulletins). Train crews must review as soon as practical and follow prompts for acknowledgment.

Directives that are delivered electronically via PTC will immediately be displayed onboard and protected by PTC on trains operating in a PTC active state. When any directive is voided in the system by the train dispatcher trains operating with PTC active will no longer display an associated target and the train crew may consider any directive, other than a Form B, no longer in effect. All Track Bulletin Form B restrictions remain in effect until they expire or are made void by the train dispatcher.

**18. (B) Non-PTC Territory**

Where taking charge of a PTC-equipped train, the PTC system on the controlling locomotive must be initialized. The train dispatcher will initiate communication that a directive has been delivered. (Note: this verbal confirmation process does not apply to Form B Track Bulletins). Because PTC is in a disengaged state, directives will not be enforced by PTC. When any directive is voided in the system by the train dispatcher, the directive will remain in effect until verbally notified by the train dispatcher.

**Authority**

Train crews will receive "delivery prompts" for track warrants. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will state the track warrant number, and if included, box 5 (after arrival). Train crew will confirm receipt of the track warrant to the train dispatcher by stating the track warrant number, limits (including track) and total number of boxes marked including which specific boxes are marked. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive track warrant 725-45 with a box 5 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive track warrant 725-45 from Anna to Bess on main track with two boxes marked, 2 and 5."*

If the train crew cannot confirm the directive is on the PTC display or if the information displayed is incorrect, the directive will be issued using the verbal transmission / repetition process. Dispatcher will notify the PTC desk.

**Restrictions**

Train crews may not always receive "delivery prompts" for restrictions. It may be necessary to select "view bulletins" on the PTC display to locate the restriction being confirmed. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will contact the train crew and state the restriction number or milepost(s) that restriction applies to. The train crew will confirm receipt of the restriction to the train dispatcher by stating the restriction number (where applicable), milepost(s), speed (where applicable) and track on which the directive applies. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive form A track bulletin 1355 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive form A track bulletin 1355 from MP 181.0 to MP 181.5, 10 MPH on main track ".*

**19. Currently Not Used**

**20. Currently Not Used**

**21. Currently Not Used**

**22. Remote Control Operations**

- Employees assigned to a remote control crew are governed by the BNSF Remote Control Operating Instructions and must have a current copy accessible while on-duty.
- Only certified operators or students who have been trained in remote control operations may operate an Operator Control Unit of a Remote Control Locomotive.
- Division Timetable Special Instructions will designate limits of Remote Control Zones (RCZ). RCZ signs may also be posted at zone access locations.
- The Remote Control Operator in control of a Remote Control Locomotive must be notified of any track removed from service or working limits established for the protection of another craft.
- When a remote control operations system radio broadcasts "Operator Down", movements on adjacent tracks must move prepared to stop in half the range of vision until the safety of all members of the remote control crew is confirmed.

**23. Automatic Cab Signals**

Cab signal equipment must be cut out except on suburban equipment on the Chicago Subdivision.

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**24. Switch Tender Instructions**

The train dispatcher and switch tender are required to have a job safety briefing before a switch tender acts on instructions from the train dispatcher. Following a shift change, another briefing is required between the train dispatcher and switch tender, which will include discussion of pending instructions and determination if the instructions are still correct.

When communicating concerning approaching train movements, use engine initials and number and direction. Do not use only train symbols or blanket terms such as "westbound or eastbound trains."

The dispatcher will issue specific instructions to the switch tender. The switch tender must repeat the instructions to the train dispatcher and receive confirmation of being correct, before acting on the instructions.

For example: After confirming with the train dispatcher that BNSF 1234 West will be the next train to line from Main Track 1 to Main Track 2 at Robinson Spur, the switch tender is then to call the BNSF 1234 West and verify the train has authority from Main Track 1 to Main Track 2 at Robinson Spur. After verification has been received from the BNSF 1234 West, and after the switch tender has visually identified the BNSF 1234 West, the switch tender will line the route for the movement. After the movement is clear of the switch, the switch must be lined and locked in the normal position.

When necessary for the train dispatcher to change routing instructions to the switch tender after authority has been granted to a train, it is the responsibility of the dispatcher to communicate directly with the switch tender. Another authority over the switch that the tender is in charge of cannot be issued until the dispatcher has informed the switch tender of the change.

When a switch tender is at a remote location, away from a depot and/or base station radio, the switch tender must check with dispatcher when arriving at such location to confirm they can clearly communicate. If the switch tender becomes aware of any radio communication problems, the train dispatcher must be notified. The chief dispatcher will make particular arrangements when communication problems are evident.

While in charge of a switch, the switch tender must not leave the switch unattended unless it is lined and locked for normal movement.

The train dispatcher's transfer must include switch tender locations and pending instructions from the train dispatcher to the switch tender.

**25. FRA Random Drug Testing**

TY&E employees selected for FRA Random Drug Testing must show the start time of the Random Drug Test (RDT) in the remarks column of their timeslip. Start time of RDT begins when a supervisor notifies the employee that they are selected for RDT. A stop time on RDT is necessary only if different from their off-duty time.

**26. Verification of Rules Examination**

Employees required to pass rules examination must have a current rules examination card when issued, or engineer's certificate in their possession while on-duty.

**27. Cars Set Out Bad Order**

When practical, a car set out between terminals due to mechanical defect should be left where it can be accessed by truck for making repairs. If the car set out is a military shipment or Rail Sensitive Security Material (RSSM), the Resource Operation Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3. The PBX/MRAS radio system may be used for this communication.

**28. Grade Crossing Accidents**

The following information is designed to serve as post grade crossing accident guidelines. It is designed to provide the utmost in safety for you and your crew.

After the accident has occurred and the train is stopped:

A. Ensure the safety of crew members, accident victims, and the public.
B. Meet the requirements of GCOR 6.23.
C. Contact the dispatcher or any other available radio contact and advise:
    1. Exact location,
       and
    2. What emergency services are needed. Be sure to include alternate routes for the emergency vehicles if your train is blocking road crossings.
D. Assess the damage to the vehicle and train to determine if there is any danger to your crew or the public.
E. Assign a crew member to monitor a radio to provide further information for emergency assistance.
F. If it is safe, render assistance to accident victims. It is important not to move the victim unless a life threatening situation exists.
G. Turn "off" the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless necessary to permit emergency vehicles to access the accident scene through a blocked crossing, etc.
H. Only give information to:
    1. The investigating officer,
       or
    2. Authorized company managers.
        a. Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can recall.
        b. Record the badge number and name of the investigating police officer at the scene. Witness with the officer that the headlight is on, and that the whistle and bell on lead unit are in proper working order. Also, note that the crossing warning devices are functioning.
I. Assign a crew member to verify the accuracy of the train list. Save all train lists, track warrants, track condition messages, and other pertinent documents for the proper BNSF managers.
J. Ascertain that no part of your train is derailed and that it will be safe to proceed once released by the investigating officer.
K. Personal counseling will be available to any crew member who might experience post-accident trauma.

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**29. Trains Performing Track Maintenance Work**

The conductor is in charge of and will be responsible for all work train movements. The safety of the overall train operation is the responsibility of the entire train crew. During work activities the engineer may accept train movement instructions only from a designated individual identified in the job safety briefing before commencing work. The individual designated to provide train movement instructions to the engineer will be a member of the train crew except during work activities requiring precision train movement, such as rail recovery. An individual of the work group may be designated to communicate directly with the engineer for precision train movements under the supervision of the conductor.

The engineer will respond to all Stop signals.

When Maintenance of Way, Signal, Structures, Mechanical or other work groups are involved with the activities of the work train (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.), a coordinator from such group must be designated. The train crew will communicate with the designated coordinator concerning all train movements and work activities.

An initial job safety briefing will be conducted before commencing work and additional job safety briefings must be held at intervals not to exceed four hours until the end of the tour of duty. In addition, when there is a change in assignment or a significant delay in activities has occurred, a job safety briefing must be conducted before commencing work. Employees who subsequently work in the vicinity of a work train after such job safety briefings have been held, must not commence work until they have received a job safety briefing from the designated coordinator regardless of authority received to occupy the area. The conductor is responsible to ensure that no work activity begins until the required job safety briefings are complete.

Job safety briefings must include applicable operating rules, safety rules, special instructions and any other work-specific information. The designated coordinator is responsible for communicating impending train movements to the work groups under his control.

All employees assigned to a work train and/or its activities are responsible to be on the lookout for train or track car movements at all times. Lookouts will be utilized when necessary and all movements must be fully protected.

In signaled territory, when at the intended work location and before performing work associated with track maintenance (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.) on a Main Track or Siding the conductor must:

- Notify the train dispatcher of the milepost limits where the work will be performed.
- Notify the train dispatcher when the work has been completed.

**30. Track Condition Messages**

Track condition messages (TCM) may be issued by train dispatchers to cover restrictions that affect movements on tracks governed by GCOR/MWOR 6.28, or any restriction not normally covered by a track bulletin restriction.

Restrictions shown on a track condition message may be cancelled verbally by the train dispatcher.

Authority can be given by a train dispatcher or supervisor to enter a track shown to be out of service on a track condition message.

When a track warrant indicates a track condition or train message is to be received, conductor is responsible for securing those messages necessary for movement of their train. Track condition messages must be retained and complied with on all trips made during the tour of duty on which they were received.

**31. Securing Track Warrants/General Track Bulletins**

When reporting for duty at initial terminal, a crew member will secure track warrants, track bulletins, and track condition messages or general track bulletin, unless otherwise instructed. A relief crew member must contact the dispatcher before departing to determine if additional documents are required, and advise if all crew members are present and ready to depart.

If the identifying unit is not shown correctly on the address line, contact the train dispatcher and correct the address line before departing the initial station.

**32. Currently Not Used**

**33. Flood, Excessive Wind, Tornado, Cold Weather and Earthquake Instructions**

**Observations by Train Crews Associated with Flood/High Water**

Instructions for observations, or when otherwise notified by the train dispatcher, of flood/high water with or without a flash flood warning:

| Conditions Observed Associated with Flooding/High Water | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Water over rail | Immediately stop train, consistent with good train handling. Report condition to Dispr. After stopping for these conditions, do not move the train until further instructions are received from maintenance personnel. | | |
| Surface irregularity | | | |
| Washout | | | |
| Side scour | | | |
| Erosion at piers, footing, dump planks and head walls of bridges | | | |
| Debris against bridge with active water flow | Do not exceed 40 MPH until entire train has passed the condition. Report to Dispr. | | |
| Turbulent water | Do not exceed 30 MPH until entire train has passed the condition. Report to Dispr. | | |

Instructions for observations of flood from a stream or river near BNSF track, with or without flash flood warning, or when otherwise notified by the train dispatcher of flood/high water:

| Water Observed Reaching Bottom of Ballast Line (Figure 1 Below) | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Standing Water | Report to Dispr | | |
| Moving Water | Do not exceed 30 MPH until entire train has passed the condition/warning limits and report to Dispr. | | |
| **Water Observed Reaching Top of Ties (Figure 1 Below)** | | | |
| Standing Water | Do not exceed 50 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 30 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 40 MPH until entire train has passed the condition/ warning limits. Report to Dispr. |
| Moving Water | Do not exceed 20 MPH and be prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits. Report to Dispr. | | |

**Water Between Top of Tie & Bottom of Ballast**

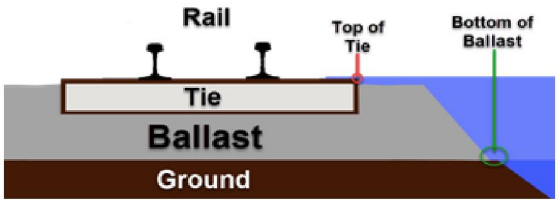



*Figure 1 - Top of Tie and Bottom of Ballast*

**Flash Flood Warning**

Weather information received by BNSF from Accu-Weather Enterprise Solutions, Inc., is categorized as a "Warning" when it describes conditions that require immediate action by the train dispatcher to notify train crews of imminent danger. These warnings are immediately distributed to the relevant train dispatchers. When Accu-Weather issues a "Flash Flood Warning", the dispatching center will immediately advise all involved trains of the specific conditions.

Flash Flood Critical Areas are designated in the Division Timetable. Division Engineers will identify "critical" areas by subdivision, segmented by mile post locations based upon their susceptibility to flooding or their history of being prone to washouts or side-scour wash.

Instructions for movement of trains when notified of flash flood warning:

| Flash Flood Warning | Passenger Trains | Key Trains | All Other Trains |
|---|---|---|---|
| **Critical Area** | Do not exceed 20 MPH through critical area limits and be prepared to stop for slides, washouts, debris, track surface irregularities or obstructions on the track. | | |
| **Non-Critical Area** | Do not exceed 50 MPH through limits identified in the warning. | Do not exceed 30 MPH through limits identified in the warning. | Do not exceed 40 MPH through limits identified in the warning. |
| *Additional restrictions, including a requirement to stop the train, may apply if flooding/high water conditions are observed by the train crew.* | | | |

The Flash Flood Warning restrictions will remain in effect until the track has been inspected and employee performing the inspection advises the train dispatcher that the applicable restriction is canceled. If the Flash Flood Warning limits include locations identified as being "critical," these areas will be inspected on a priority basis as directed by the dispatching center.

Train dispatchers will continue to issue Flash Flood Warnings until the track has been inspected and the Flash Flood Warning expires or is canceled by Accu-Weather.

**Local Observations by Maintenance Personnel**

When local maintenance personnel become aware of current conditions that might produce flash flooding that could result in damage to BNSF track or structures, they will:

- Immediately place the speed restriction described above on the affected route.
- Inspect the track for washouts, side-scour wash, surface irregularities and/or water over the rail.
- Carefully inspect bridge foundations and drainage structures, with careful attention to bridges with mud sills, for erosion behind dump planks and head walls, erosion around piers and footings, and obstructions from drift and debris.
- If water level, turbulence, or other conditions make a thorough inspection impossible at the site of such a bridge, operations of all trains will be reduced to no more than 20 MPH and prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits until it is possible to make a proper inspection.
- If, during the initial track inspection, there is any doubt about the safety of train operations over bridges, a qualified Structures employee must be called at once, and any speed restrictions that have been placed on bridges will not be lifted until authorized by the Structures employee.
- Track and bridge foremen must continue to patrol past their respective territories if an adjoining territory is likely to have been damaged, and such damage might not have been discovered.

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**Excessive Wind Instructions**

When wind warnings are received meeting the wind speed criteria, the train dispatcher will make a general radio broadcast regarding the High Wind Warning over the radio(s) nearest the affected area and then will notify all affected trains and employees with movement authority providing time and limits of the expected high winds. The term "until traversed" may be used in place of communicating the expiration time of the warning when notifying trains and MW authority holders of wind warnings. Until traversed means the rear of thetrain is clear of the limits. The following table governs movement of trains within or entering the High Wind Warning limits when the general radio broadcast is received:

| Wind Speed | Passenger Trains (includes Amtrak, commuter trains and freight trains consisting entirely of business cars) | Light engines, empty bulk commodity tank car unit trains containing loaded buffer cars (if equipped) weighing 75 tons or greater, loaded ribbon rail trains and loaded bulk commodity unit trains as defined in the Air Brake and Train Handling Rules Glossary. | Trains handling cars with two empty containers stacked on top of one another (as indicated on train list) | All other trains |
|---|---|---|---|---|
| 51 to 60 MPH | 40 MPH* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |
| 61 MPH or greater | Staging requirements* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |

**Staging Requirements:**

Affected trains and equipment may proceed not exceeding 20 MPH pending notification of a staging location (e.g. station, siding or location with double crossovers) as directed by the train dispatcher to allow trains not affected by the wind warning to pass.

* When local weather conditions are observed not to be as severe as the wind warning indicated and these conditions would not impact safety, an employee making the observation will advise the train dispatcher of the local conditions. If the employee advises local wind conditions are 50 MPH or less, with chief dispatcher authority the train dispatcher may grant permission for the passenger trains restricted to 40 MPH and other affected trains to operate at maximum authorized speed. Observations of local wind conditions can be made by any of the following:

- Crew member on an affected train
- Railroad employee in the field at location of warning equipped with a wind monitoring device (anemometer)
- Local tower mounted wind monitoring device (anemometer)

**Tornado Watch and Warning Instructions**

Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile and extend the length of a city block to 300 miles. The greatest potential for such storms usually exists from April through September.

When tornado watch or warnings are received, the train dispatcher will notify all affected trains and employees with authority in the area providing the tornado watch or warning information.

A "tornado watch" means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4-6 hours before the conditions may occur.

During a tornado watch, all train movements and yard activities will continue, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud, or combination of the above. When a crew knows they are in a watch area, the radio on a locomotive or a packset should be used to monitor instructions and information to and from the train dispatcher. In the event a crew spots a funnel cloud, the train dispatcher should be immediately notified, consistent with the crew's safety.

If a train or yard assignment has an occupied caboose, upon being notified of a tornado watch, the occupants of the caboose should immediately move to the locomotive consist. While in the process of moving to the locomotive, if the tornado watch turns into a "tornado warning," or a funnel cloud is spotted, those affected should seek shelter in a nearby ditch, ravine, culvert or in a depression. If none of these are available, lie face down on the ground with hands over the head away from the caboose or cars in the train.

A "tornado warning" means a tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains and crews appraised of limits of tornado warnings. Train crews are to follow instructions as follows:

During a tornado warning, all train movements and yard activities must stop. Any train enroute will stop and employees should seek appropriate shelter consistent with the safety of all involved, avoiding the stopping of a train on a high bridge, across railroad and highway crossing at grade, or anywhere the presence of a train could be a hindrance.

After the tornado warning has expired:

- If determination is made that the path of the tornado crossed the tracks at the location or in the immediate vicinity of the train, crew members must inspect their train before moving to determine if any damage or derailment has occurred to the train or if the track structure has been damaged.
- All trains within or entering the tornado warning limits may proceed, prepared to stop when approaching bridges, culverts, or other points likely to be affected until relieved by the dispatcher. The train dispatcher must be advised immediately of damage or unexpected conditions.
- The train dispatcher must restrict trains as prescribed in the second bullet, until an inspection has been completed by division employees or all of the limits of the tornado warning have been traversed by a train and it is confirmed by the train crew(s) that no damage or unexpected conditions were observed.

**Cold Weather Restrictions:**

The correlations that exist between rail service failures, temperature, train axle load, track and equipment conditions, and train speed are complex and involve many factors including equipment and track component design and material properties, their relative wear conditions, and the rail/wheel interaction for various traffic mixes and operating conditions.

In order to maximize safety with regard to extreme temperatures and temperature changes, rail laying temperatures and weather extremities across our railroad have been considered. In that effort, the railroad has been divided into two regions as follows:

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**Region 1** contains the following divisions:

| | |
|---|---|
| California | All subdivisions |
| Chicago | Beardstown and Yates City subdivisions |
| Heartland | Afton, Amory, Birmingham, Cherokee, Cuba, Ft. Scott, Hannibal, River, Thayer North, and Thayer South subdivisions |
| Kansas | Arkansas City, Douglass, Emporia, Hereford, La Junta, Panhandle, Strong City, and Topeka subdivisions |
| Montana | Kootenai River subdivision from MP 44.0 to Sandpoint Jct only |
| Northwest | All subdivisions |
| Red River | All subdivisions |
| Southwest | All subdivisions |

**Region 2** contains the following divisions:

| | |
|---|---|
| Chicago | All subdivisions excluding Beardstown and Yates City |
| Heartland | Bayard, Council Bluffs, Creston, Napier, Omaha, and St. Joseph subdivisions |
| Kansas | Boise City, Dalhart, and Twin Peaks subdivisions |
| Montana | All subdivisions excluding that part of Kootenai River subdivision from MP 44.0 to Sandpoint Jct |
| Powder River | All subdivisions |
| Twin Cities | All subdivisions |

**Cold Weather Train Speeds:**
The Engineering Department has identified two factors which require Cold Weather Train Speeds---Low Temperature Threshold and Temperature Differential Threshold, as follows:

**Low Temperature Threshold:**
In Region 1, this threshold is 0 degrees Fahrenheit.
In Region 2, this threshold is -20 degrees Fahrenheit.

Unless further restricted by individual subdivision Special Instructions, be governed by the following:

When ambient (air) temperature drops below the Low Temperature Threshold trains must not exceed the following speeds:

In non-signaled territory:
40 MPH for all trains.

In block signal system limits:

| | |
|---|---|
| Trains 100 tons per operative brake and greater. | 40 MPH |
| Key trains | |
| Trains less than 100 tons per operative brake. | 50 MPH |
| Passenger trains, Z-symbol intermodal trains, or single level loaded intermodal trains. | 65 MPH |

If in doubt as to the temperature, contact the train dispatcher. Notify the train dispatcher when your train is restricted due to this requirement.

These restrictions remain in effect until the ambient (air) temperatures rise above the Low Temperature Threshold.

**Temperature Differential Threshold:**
In Region 1, this is any temperature of 50 degrees Fahrenheit or warmer that falls to 10 degrees Fahrenheit or colder within 24 hours.

In Region 2, this is any temperature of 40 degrees Fahrenheit or warmer that falls to 0 degrees Fahrenheit or colder within 24 hours.

The train dispatcher will make notification to trains that temperature has exceeded the Temperature Differential Threshold. When so notified, trains must observe Cold Weather Train Speeds, by Region, as shown above. The Engineering Department will perform a track inspection, reporting results to the train dispatcher. If no further restrictions result from the track inspection, the train dispatcher will verbally notify the trains affected.

Be aware that Cold Weather Train Speeds may still be required due to Low Temperature Threshold. In other words, once track inspection is completed following a Temperature Differential Threshold, the ambient (air) temperature may still be below the Low Temperature Threshold, requiring that Cold Weather Train Speeds must still be observed.

However, if the ambient (air) temperature is above the Low Temperature Threshold and no further restrictions resulted from track inspections, observance of Cold Weather Train Speeds is not required.

**Determining Ambient Temperature**
When referring to a subdivision timetable for extreme air temperature operating instructions, be governed by the following:

- Ambient air temperature readings may be obtained by train crews utilizing any local means available such as field personnel, track side warning detectors, yardmasters, temperature displays from such sources as banks, etc.
- When unable to determine the ambient air temperature utilizing local methods, contact the train dispatcher who will determine ambient air temperature at the closest available location utilizing the AccuWeather website or other available means.

**Earthquake Instructions**
When an earthquake is reported, the train dispatcher will do the following: (See Decision Table, next column)

1. If the magnitude or epicenter are unknown, instruct all trains within 150 miles of the reporting location to “proceed at Restricted Speed due to earthquake conditions.” An acknowledgment must be obtained from each train or engine receiving these instructions.
2. Once magnitude and epicenter are known, the following inspection criteria will apply:
   - If magnitude is less than 5.0, no inspection is required.
   - If magnitude is 5.0 or greater, response will depend on the group of states and provinces within which the epicenter is located and the following criteria will apply within the designated radius from the epicenter.

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| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| Less than 5.0 | No Inspection Required | N/A | N/A | N/A | N/A |
| 5.0 to 5.49 | Trains proceed at Restricted Speed until signals have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 5.5 to 5.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 6.0 to 6.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 150 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 50 Miles | 80 Miles | 150 Miles | 80 Miles |
| 6.5 to 6.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 220 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 70 Miles | 140 Miles | 220 Miles | 140 Miles |
| 7.0 to 7.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 400 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 100 Miles | 300 Miles | 400 Miles | 300 Miles |
| 7.5 and above | Trains stop until instructed to proceed after inspection of track, signals and bridges completed. | As Directed* | As Directed* | As Directed* | As Directed* |

* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

Group 1: California and Baja California, Mexico
Group 2: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico
Group 3: Area east of Group 2
Group 4: Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

**35. Switching and Handling Business Cars**

a. Business Cars must be handled as outlined in accordance with GCOR 7.3, 7.6, and 7.9.
b. Air Brakes—The Business Car air brake system must be connected to the locomotive and the automatic air brake used in controlling movements during switching.
c. Coupling—When coupling into Business Cars, Business Car equipment, or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. Business Cars must not be cut off while in motion or no car moving under its own momentum should be allowed to couple to them.
   Note: Business cars being added to the rear of trains must be performed by a separate locomotive (switch engine) with coupling not to exceed 1 mph. Do not attempt to make a coupling with the rear of the outbound train onto the business cars being added.
d. After Coupling—Once the coupling is made to the Business Car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communication connections.
e. When cars are to be coupled to the observation end of BNSF Business Car 30 (Glacier View) and Business Car 32 (William B. Strong), the car next to the Business Car must be an empty flat, gondola or other type of car with a low profile.
f. 480 Volt electrical jumper cables between Business Cars or any other car so equipped will be considered to be energized until applicable lockout/tagout procedures confirm connections are de-energized. All connections and disconnections are to be performed by authorized Mechanical Personnel Only.
g. Cars are to be considered occupied at all times whether they are moving in the train or parked.
h. When cars or trains are parked, protection must be established as outlined in GCOR 5.12. Local Transportation Department will coordinate with local Mechanical Department to provide required protection.
i. White “Occupied Camp Car” signs will be available on Business Cars through Business Car personnel.
j. All hand brakes must be fully released before moving Business Cars. If a hand brake is not accessible on an enclosed vestibule, the on board Mechanical Rider or Mechanical Supervisor must be contacted to allow access or verify that hand brakes have been released.
k. Business Cars cannot be moved until vestibule steps are raised. Vestibule steps must not be lowered until Business Cars have come to a complete stop.

**36. Instructions for Handling Continuous Rail**

(Excluding articulated loads of 80 ft. length rail or less) Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by ABTH Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the “rail” cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled “Buffer/Idler” in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BNSF 920119 through BNSF 920173 , BNSF 920230 through 920249, and BNSF 920280 through 920299 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

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**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
   - Must be handled in special service.
   - Must not be required to make setouts and pickups enroute.
     - Exception: When authorized to operate two loaded rail trains together, splitting of the trains is permitted.
   - Must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)
   May be handled in trains other than special service under the following conditions:
   - Rail train must be on head end.
   - Train length limited to 64 cars.
   - Should not be required to make setouts and pickups enroute.
   - Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
   - If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative enroute, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
   - Strobe lights at each end ramp car must be observed frequently enroute. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
     a. If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
     b. If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.
   - If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

   The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolyte batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

   The “ramp or tunnel” strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

   To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute; and fully charged batteries will operate them for about sixteen hours.

   The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

   Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

   At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**

Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4” x 4” hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**

When handling empty ‘rail train’ blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car.

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**37. Key Train and Key Train Commodity Securement Requirements**

Do not leave a Key Train or rail cars meeting the Key Train definition unattended on a main track or siding unless permitted by the train dispatcher.

The train dispatcher may only grant permission to leave the train or car(s) at locations specified by timetable/special instructions or when otherwise necessary, after consulting with NOC-General Director Transportation, Corridor Superintendent, Assistant Corridor Superintendent, or Chief Dispatcher to evaluate operating circumstances.

When permission to leave the train or car(s) is received from the train dispatcher:

- Job brief between members of the crew to review all applicable securement requirements.
- Secure equipment as required by all securement requirements of the employing railroad.
- Include the following in a job safety briefing with the train dispatcher, who will verify information is provided:
  - Tonnage and length of train (or total number of individual cars) left unattended,
  - Grade of track at the location as indicated by timetable grade chart.
  - Whether equipment secured is located on curve or straight track,
  - Any inclement weather conditions (e.g., precipitation, high wind),
  - Total number of hand brakes applied,
  - Confirmation the train or car(s) is secure. Communication to include statement, "Conductor and engineer agree securement requirements have been met."

Note: These requirements do not apply when a portion of the train or car(s) is left properly secured and the on-duty crew is:

- Picking up, setting out, or repositioning cars at an industry,
- Switching cars to/from tracks adjacent to main track or siding,
- Adding, removing, or repositioning locomotives, or
- Moving part of a train when doubling a hill or cutting crossings.

**38. De Minimis Territory**

De minimis territory carries a minimal quantity of PIH/TIH materials and must meet certain criteria related to annual tonnage, grade, train spacing, and volume factors including:

- Fewer than 100 loaded cars containing PIH/TIH materials per year, and
- Two or fewer trains per calendar day carrying any quantity of PIH/TIH (loaded and residue/empty).

Prior to operating on de minimis territory train crew must notify the train dispatcher if carrying any quantity of PIH/TIH materials (loaded and residue/empty).

Maximum speed of trains carrying any quantity of PIH/TIH materials on de minimis territory is 40 MPH.

**De Minimis Territories**

| Division | Subdivision | Limits |
|---|---|---|
| Red River | Conroe | MP 77.0 to MP 152.2 |
| Southwest | El Paso | MP 936.1 to MP 1152.5 |
| | Phoenix | MP 135.0 to MP 181.2 |
| Powder River | Casper | MP 458.9 to MP 513.1 |
| Montana | Great Falls | MP 37.3 to MP 97.0 |
| Twin Cities | Aberdeen | MP 704.6 to MP 777.0 |
| | Noyes | MP 0.0 to MP 85.0 |

**39. Train Inspection Due to Track Indication**

A BNSF or foreign line carrier crew instructed by the train dispatcher/control operator to inspect their train due to track indication(s) must promptly stop the train consistent with good train handling procedures and inspect both sides of the entire train. During inspection, particular focus must be given to wheels, axles, trucks or other parts of the train that may cause track damage.

When conditions permit, inspection is to be performed while the train is moving, not exceeding 5 MPH to afford the inspector opportunity to hear a defect such as a broken wheel. To complete inspecting the entire train, inspection may also be performed while backing up not exceeding 5 MPH when all requirements of GCOR 6.6 (Back Up Movements) can be met.

Any side or portion of the train that cannot be inspected while the train is moving must be inspected while the train is stopped. Discontinue inspection if it cannot be completed safely until an alternative is identified by job safety briefing or coordination through the train dispatcher/control operator and/or supervisor.

Notify the train dispatcher/control operator of any defects and when inspection is complete.

**40. Rear End Restricted Cars**

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

**41. Car Identification B-End**

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Multi-platform Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

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**42. Currently Not Used**

**43. Signal Awareness/Position of Switch Form**

Signal awareness and Position of Switch Forms must be completed when operating on subdivisions where PTC is not in effect, or when operating on territory where PTC is in effect and train is not PTC equipped.

Note: On PTC active trains where the PTC system becomes inoperable enroute, Signal Awareness and Position of Switch Forms are not required to be completed.

Subdivision-specific signal awareness/position of switch forms available at on-duty points must contain at least the minimum requirements shown on the standard form. These forms may contain additional subdivision-specific information as approved by the Division General Manager. When subdivision specific signal awareness/position of switch forms are not available, crew members may request a standard form be included with the GTB. When required, in addition to observing and calling signals as required by GCOR 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects, yellow or yellow-red flags and trackside warning detector exceptions must be recorded.

Record the following:

- CLEAR signals - Name or aspect.
- All other signals - Name or aspect of the signal, the train speed and time signal passed.
- Flags - Name and location of each flag, the train speed and time flag passed.

When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (outside of restricted limits or yard limits) a crew member must record:

- Name and location of hand operated main track switches, switch point locks, and derails operated.
- Name and location of hand operated main track switches left in reverse position.
- Time and initials of employee operating the main track switch, switch point lock or derail.
- Time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form.
- Entry of appropriate box number when switch is left in reverse position.

Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail. The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. If not practical for both the conductor and engineer to initial the form, after a job safety briefing, the person filling out the form can enter the other initials on the form. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, when completion of Position of Switch Form is required and operating in non-signaled territory or Double Track ABS territory (except in Restricted Limits and Yard Limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position." If radios become inoperable, all members of crew must job safety brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

Standard forms:

Signal Awareness Form (Location to Location)

Date:_____ Conductor:_____ Engineer:_____

Train Symbol:_____

Block System Limits

| Signal Location / Detector Exception | Signal Name | | | | | | *Speed | *Time Passed / Time at Required Speed | Flag Location and Name |
|---|---|---|---|---|---|---|---|---|---|
| | Clear (Mark X) | Approach Medium (Mark X) | Approach (Mark X) | Stop and Proceed (Mark X) | Stop (Mark X) | Other (Mark X) | | | |
| Examples | | | | | | | | | |
| CP 5325 | X | | | | | | | | |
| CP 5332 | | | X | | | | 40 MPH | 1545 1548 | |
| WSS Anna | | X | | | | | 60 MPH | 1715 | |
| | | | | | | | | | |
| TWD MP 566.5 | Exception - Main 1, Hot Journal, Axle 45, Right side | | | | | | | | |

*It is not required to indicate speed and time for CLEAR signals.
The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting
Y - Yellow Flag, Y/R - Yellow-Red Flag

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| Position of Switch/Flag Location | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subdivision(s) | | | | | | | |
| Flag Location | Flag Name | MPH | Switch/Derail/Switch Point Lock Name and Location | Time/ Initials Operated | Time/ Initials Restored | Engineer's Initials | Conductor's Initials |
| Examples: | | | | | | | |
| MP 21 | Y | 30 | | | | | |
| | | | W House Track SW Bess | 1800 LGW | 1935 LGW | KDW | DET |
| | | | ESS Anna | 2100 LGW | Box 13 | KDW | DET |
| The following abbreviations may be used: Y - Yellow Flag, Y/R - Yellow-Red Flag | | | | | | | |
| Conductor Signature: | | | | | | | |

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)
  - Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
  - Place in company or US mail for handling.
- Notify the train dispatcher of the near collision providing as much information as possible. The dispatcher will notify the ROCC.

Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF Police personnel or to the Resource Operations Call Center at 1-800-832-5452.

**45. Network Operations Center Notification Requirements**

**Procedures for Contacting Help Desks**

- Train Dispatcher - Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an HTD/ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Chief Dispatcher - For Mechanical Related Service Interruptions (SIs), must make sure that the correct lead locomotive ID, ETD, cars, etc., are correctly reported when generating a service interruption in SIDOL.
- Mechanical Help Desk - After initially recording and providing general information about defective locomotives, cars, or an HTD/ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Train crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

Note: At terminals, locomotive and/or HTD/ETD defects (on either ROAD or YARD locomotives) must immediately be reported to local supervision the Mechanical Help Desk. A bad order tag must then be attached to the ETD to prevent subsequent use before repairs can be made and be governed by local supervision on where to place bad ordered ETD.

- Bad Order ETD Handling Between Terminals- Train crews who have a bad order ETD removed from their train must open an ETD defect with the Mechanical Desk, attach a bad order tag to the ETD, and either turn over the bad order ETD to the mechancal responder on site or if no mechanical responder is assisting train, transport the bad order ETD in the front portion of the cab of the lead locomotive. When transporting, ensure the ETD is placed to where a tripping hazard will not exist while entering and exiting the locomotive cab. Upon reaching the terminal, the train crew must contact and be governed by local supervision on where to place the bad ordered ETD. Train crews being relieved enroute must notify relief crew of bad ordered ETD placed in the cab for their handling upon reaching terminal.

Before repositioning of the lead locomotive in a consist, train crews must contact the Mechanical Help Desk to check lead qualification status of other locomotives in the consist to determine which may be used as a lead locomotive.

The Mechanical Help Desk may be contacted by phone at:

Operations North-817-352-2840, Co. Line 8-352-2840
Operations South-817-352-2836, Co. Line 8-352-2836

Service Support-In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting:
BNSF company line-8-593-7610
Toll-free line-800-549-4601
BNSF fax line-8-593-7615
Fax toll-free line-800-234-1341

Interchange reporting:
BNSF company line-8-593-7640
Toll-free line-800-206-3846
BNSF fax line-8-593-7645
Fax toll-free line-800-223-6757

**46. Special Car Handling Instructions (SCHI)**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

| CODE | DESCRIPTION |
|---|---|
| AG | Armed Guard Service |
| AV | Annual Volume |
| BH | Bad Order Home Shops |
| BN | If Bad Order Notify Shipper |
| BT | Bare Table Flat |
| B1 | Bad Order |
| B2 | Cleaned (swept), Holes in floor 1 in. to 6 in. |
| CA | Moving to a Customer Demand |
| CB | CARB (See Note 3) |
| CC | To Be Cleaned and Conditioned |
| CD | Condemned Car (See Note 1) |
| CI | Customs Inspection |
| CO | Coload Manifest Car |
| CR | Empty Coal Car Moving as Revenue |
| CS | Customer Storage |
| CU | Customer Stage |
| CY | Certification That This Equipment is for Recycling |
| DB | Distributed Van Bad Ordered |
| DH | Do Not Hump |
| DI | Redistribute at Destination |
| DK | Do not couple to double shelf coupler cars |
| DN | Shipper's Authority Required for Diversion |
| DO | Delivery Order Shipment |
| DR | Drop Yard |
| DS | Do not spot for loading other than hazardous last contained. |
| DT | Distributed Intermodal Equipment |
| DU | Do Not Uncouple |
| DV | Unit has been diverted |
| EC | Speed Restriction 55 MPH |
| EH | Embargo Hold |

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EL ..... Empty Container Mechanical Lock
EM ..... Hold for Equipment Management
ER ..... Return Empty Via Reverse Route
ES ..... Expedited Service
EW ..... Hold Early Warning
FA ..... Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB ..... Automobiles Headlights Facing B (Brake End) of Autoveyor
FM ..... Fumigate Car Now
FP ..... Fumigation Placards Applied
HA ..... Cars Held for the Customer in Bond Pending Customs Authority
HB ..... Hold for Billing—Mini Waybill Indicating Industry to Bill
HC ..... Hold for FMC Redistribution
HD ..... Cars Held for Customer Diversion
HE ..... Head End Only
HF ..... Car Held for BNSF Rail Clearances (High Wide)
HG ..... Cars Held for BNSF Pending Customer File Information
HH ..... Cars Held for Overload Condition
HI ..... Hold for Inspection
HJ ..... Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK ..... Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL ..... Excessive Dimension
HM ..... Moving in ISO Tank Container
HN ..... Cars Held for Specified Local Conditions, **Restricted Usage
HO ..... Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR ..... Cars Held for Customer Furtherance Instructions After Arrival at Destination
HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement
HT ..... Heat Car
HV ..... High Value Shipment
HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier
IB ..... In BNSF Bond
IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs
ID ..... In Bond Beyond BNSF Destination
IE ..... Interchange Error
IH ..... Inhalation Hazard
IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico
IN ..... Hold for Inspection
IS ..... In Shipper's Bond
IU ..... Inspection was Requested by US Customs at Port of Entry into USA
LC ..... Car Trip Leased to Consignee
LD ..... Local Distribution Empty
LG ..... Loaded to Gallonage Capacity
LO ..... Local Orders
LQ ..... Loaded to Full Cubic Capacity
LS ..... Handle in Local Service Only
LU ..... Unload in Laredo proper
LV ..... Loaded to Full Visible Capacity
LX ..... Cleared for export via Laredo
L1 ..... Customer Location 1
L2 ..... Location 2 - East Plant
M8 ..... Inspect 8 axle or greater span bolster car for ride quality components
MB ..... Make Bill of Lading
MC ..... Measure Car Now
MD ..... Mixed Destination Intermodal Units
MI ..... Requires mechanical inspection, do not move on train.
MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit
MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit
NC ..... Non-credit Patron
ND ..... Do Not Divert
NH ..... No Hit—Car Distribution
NL ..... IMDL van or container requires Nava Lock device
NM ..... Non Misc. Credit Patron—Car held account charges due
NP ..... No Placards Required
NT ..... Do Not Transfer Contents
OI ..... Oils Marine Pollutant
ON ..... Oil Notation
PD ..... Privately Owned Equipment Subject to Demurrage
PH ..... Hold for Pool Destination
PJ ..... Mechanical Project Job
PR ..... Prospective Loading Empty
PT ..... Hold for Pre-Trip
QD ..... Hold for Queue Demand
QH ..... Hazmat Hold—Do Not Transport
RC ..... Restricted Commodity
RE ..... Rear End Only
RI ..... Rail Inspection Service
RJ ..... Hold for Rejected
RL ..... Revenue Locomotive - Check for Alignment Control
RP ..... Rail Controlled Private
RS ..... Rule 7 Reject Candidate
SC ..... Equipment Scrapped
SD ..... Car Sold
SE ..... Hold for Seasonal Storage
SF ..... Feed Now
SH ..... OPSL Hold
SO ..... Shipper's Order
SR ..... Rail Surveillance Required
SS ..... Surplus Storage
ST ..... Move on special train only, requires single car train movement.
SW ..... Switch Only Empty Furnished by Foreign Road
SX ..... Speed Restriction Exception to Sys Special Inst. - OK to Run at Train Speed
TB ..... Car Control Distributed Bad Order
TC ..... Tank Car, Meets CPC-1232 standards
TN ..... Tank Car, Non - CPC-1232 standards
TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated
TS ..... Transit Shipment
TU ..... Turn This Car Now
UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.
UP ..... Unloaded as Placarded
UR ..... Unload from right side (from brake end)
VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)
VB ..... Vehicles Headlights Facing B-End (Brake End)
WA ..... Weigh After Spotted and Released
WB ..... Weigh This Car Both Before and After It Goes to Spot
WH ..... Weigh
WI ..... Waive Inspection
WL ..... Weigh Light
XM ..... Cleared to Cross from US to Mexico
25 ..... 25 MPH Speed Restriction (See Note 2)

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**Clean and Condition Codes for Empty Cars**

| CODE | DESCRIPTION |
|---|---|
| F1 | Washed, Food Grade |
| F2 | Cleaned (Swept), Food Grade |
| F3 | Dirty, Food Grade |
| F4 | Cond/Repairs, Food Grade |
| F5 | "Not Observed", Food Grade |
| F6 | Rinse, Food Grade |
| F7 | Inspected, Food Grade |
| P1 | Washed, Processor Grade |
| P2 | Cleaned (Swept), Processor Grade |
| P3 | Dirty, Processor Grade |
| P4 | Cond/Repairs, Processor Grade |
| P5 | "Not Observed", Processor Grade |
| P6 | Rinse, Processor Grade |
| P7 | Inspected, Processor Grade |
| S1 | Washed, Standard Grade |
| S2 | Cleaned (Swept), Standard Grade |
| S3 | Dirty, Standard Grade |
| S4 | Cond/Repairs, Standard Grade |
| S5 | "Not Observed", Standard Grade |
| S6 | Rinse, Standard Grade |
| S7 | Inspected, Standard Grade |
| S0 | Washed and Sanitized |

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

**Note 3.** The California Air Resource Board (CARB) has instituted tighter emissions standards for transportation refrigeration units. Some BNSF refrigerated boxcars are not compliant with the new standard and therefore cannot originate, terminate or transit through California state. Non-CARB-compliant cars can be identified by a CB code in the SCHI field and are color coded reverse video blue in TSS.

Equipment management controls have been implemented to assign only CARB cars to the state of California. Waybill edits will verify compliance at release and place a STOP on non-CARB cars if waybilled to a California destination.

No substitution between Non-CARB and CARB cars is allowed unless work orders specifically authorize the exception. Yard Block HOLDCB prevents any Non-CARB cars destined to California, or originating in California from scheduling to a train. Cars will go HOLDMT at origin.

Non-CARB cars will not schedule to trains terminating in or passing through California. Attempts to TRNSET a Non-CARB car to a California-routed train will result in a pop-up window advising that the car must be removed from the line-up and explaining why.

For questions or assistance with handling exceptions for BNSF refrigerated boxcars, email your concerns to the CARB Resolution Team at "MKT DL CP CARB".

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M2F and M3F (articulated Hi Bi/Tri-Levels) must not be operated on any Branch Line or on any of the following locations:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Carlsbad Subdivision—Mines Jct. to Carlsbad
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Laurel Subdivision
- Lester Subdivision
- Longview Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Scenic Subdivision—(Exception: Car kinds M2F and M3F may operate on this subdivision and use only MT 2 between MP 0.15 and MP 1.11.)
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Mitchell Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kinds M2F and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7 f).

**47. Train Makeup Instructions**

If a train is determined to be out of compliance with these train makeup rules as listed in items 47 & 47(A), and the maximum authorized speed exceeds 45 MPH, the speed must immediately be reduced to 45 MPH and the train dispatcher notified. The train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**System Tonnage Restrictions:**

1. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car):
   - Any car 80 ft or longer coupled to any car 45 ft or shorter.

   Note: Item 1 does not apply to test cars BNSF 82/83 and multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars.)

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2. The following cars must not be ahead of more than 5,500 trailing tons:
   - Multi-platform spine cars, regardless of how loaded.
     - See Subdivision Specific Tonnage Restrictions below for additional multi-platform spine car tonnage instructions.
3. Trains greater than 5,500 total tons (excluding empty bulk commodity trains):
   Restricted cars must not be within the first 10 cars/ platforms

The following are restricted cars that pertain to SSI 47 System Tonnage Restrictions Item 3 and Mountain Grade Tonnage Restrictions Items 1 & 2 below:

- Any conventional car (non-multiplatform) weighing less than 45 tons.
- Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) and Wind Tower Trains with distributed power.
- Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.
  Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
- Multi-platform cars with any empty platforms. Note: All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.

4. Trains greater than 7,000 tons:
   The rear 1/4 of the train by car count must not weigh more than 1/3 of the total weight.
   Exception: This does not apply to:
   - trains made up entirely of cars weighing a minimum of 45 tons each.
   - solid loaded or solid empty unit bulk commodity trains.
   - trains made up entirely of intermodal equipment.

**Mountain Grade Tonnage Restrictions**

The following restrictions are in addition to System Tonnage Restrictions (excludes solid empty bulk commodity trains):

1. On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 2,500 trailing tons.
   - Trains greater than 2,500 tons and less than 3,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 3,000 tons or greater, restricted cars must not be within the first 15 cars/platforms.
2. On Cajon (Main 3, MP 56.6 - MP 62.8), North County Transit Coaster (MP 250 - 255), Gateway (MP 178.0 - 188.0), UPRR Mojave (MP 331.3 - MP 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5) Subdivisions, the following additional restrictions apply:
   - Trains greater than 3,500 tons and less than 4,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 4,000 tons or greater, restricted cars, automax cars weighing less than 120 tons, and autoracks weighing less than 60 tons (does not apply to DP trains consisting entirely of automax/autorack cars), must not be within the first 15 cars/platforms.
3. On Cajon (Eastward Main 3, MP 56.6 - 62.8), North County Transit Coaster (MP 250 - 255), UPRR Mojave (Eastward MP 331.3 - 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Gateway (Northward MP 178 - 188), Stampede (MP 41 - 58.5) and Scenic (Eastward MP 1694.5 - 1731.3) Subdivisions, the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 4,000 trailing tons.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 3, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

**Subdivision Specific Tonnage Restrictions**

Intermodal trains operating with multi-platform spine cars, regardless of how loaded, are subject to System Tonnage Restrictions as well as the additional restrictions below:

On the Chillicothe, Marceline, Emporia, Arkansas City, La Junta, Topeka, Panhandle, Hereford, Clovis, Gallup, Seligman, Needles, Fort Worth (between MP 365 and MP 355), Wichita Falls and Red River Valley Subdivisions, trains operating with DP may exceed 5.500 trailing tons behind multi-platform spine cars if the following conditions are met:

1. No more than 30 cars equipped with End of Car Cushioning (Autoracks and Super Reefers identified in subdivision specific timetable).
2. Trains operating with rear only DP:
   - Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.
3. For trains operating with cut-in DP:
   - Tonnage ahead of and behind the cut-in DP consist must be within 2,000-tons of each other.
   - Trains operating with DP consist cut-in and no rear DP:
     Multi-platform spine cars ahead of the cut-in DP must not be ahead of more than 11,000 trailing tons. In addition, multi-platform spine cars behind the cut-in DP must not be ahead of more than 5,500 trailing tons.
   - Trains operating with both cut-in and rear DP:
     Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.

**Exceptions**

Trains which are exempt from the above train makeup instructions will be identified on Division General Order.

UPRR trains operated on BNSF may operate in compliance with UPRR train makeup rules with the exception of distributed power train length limitations as outlined in 47(A).

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train makeup instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train makeup instructions, train is authorized to operate on BNSF at a maximum speed of 45 MPH.

**Train Length, Tonnage and TOB**

When complying with Special Instructions covering speed and other train restrictions where calculations of train length, tonnage and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

Exception:

1. The weight of isolated/inoperative locomotives is added to train trailing tonnage when determining HPT in the application of ABTH Rule 106.1 Regulating Horsepower per Ton, and

2. The weight of locomotives with isolated/inoperative dynamic brakes is also added to train trailing tonnage when determining the minimum number of dynamic brake axles where required on mountain grade subdivisions.

**Military Train**
Unit military trains containing shipments on cars with end of car-cushioning, shown on the train profile as EOC, shall have no more than a total of 80 cars in the train when operating with conventional power (head end only). Train may operate in excess of 80 cars but no more than 90 when operating with a distributed power consist, either cut-in and/or on rear of train. If train (DP or non-DP) exceeds 60 cars, speed is restricted to 45 mph.

**Loaded Coiled Steel Cars**
The maximum number of loaded coiled steel cars and GRS/G0S on any train is limited per the table below:

| Total Coil Cars in Train | Maximum # of GRS/G0S Coil Cars |
|---|---|
| 80 | 0 |
| 70 | 10 |
| 65 | 20 |
| 60 | 30 |
| 55 | 40 |
| 50 | 50 |

Additional Train Makeup Restrictions Applicable to Trains Containing Coiled Steel Cars Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft. Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP - 496.1) and Wichita Falls and UP Lufkin.

**1. Conventional Unit Coiled Steel Trains**
Conventional (non-DP) unit trains made up entirely of loaded G0S and GRS cars are limited to 30 cars total and will be operated in a 2x0 configuration.

**2. Conventional Manifest Trains Containing Coiled Steel Cars (mixed freight without distributed power)**

| Total Train Tonnage | Maximum Loaded Steel Cars with End of Car Cushioning Allowed |
|---|---|
| 4,500 tons or less | 30 |
| 4,501 - 5,500 tons | 25 |
| 5,501 - 6,500 tons | 20 |
| 6,501 - 7,500 tons | 15 |
| 7,501 - 8,500 tons | 10 |
| Greater than 8,500 tons | 0 |

When moving on conventional trains, all loaded shipments identified by car kind code G0S or GRS (includes ATSF, BN, BNSF, foreign and private equipment) must be placed within the first 20 cars of the train and be as close to the locomotives as practical. When handling more than 20 G0S or GRS loaded shipments, these cars must be placed directly behind locomotive consist.

**3. Unit Coiled Steel Train Operating with DP**

Unit trains made up entirely of loaded G0S and GRS cars are limited to 50 cars total and will be operated in a 1X2 DP configuration with dynamic brakes cut out on the trail unit of the remote DP consist. The dynamic brakes must remain cut in on the controlling DP remote unit.

**4. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with DP on Rear**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars)
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist.

**5. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with Cut In DP**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars) ahead of the cut in DP
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist
- May not have more than 15 additional cars equipped with end of car cushioning behind the cut in DP.

**Wind Tower Trains**
Wind Tower Trains containing loads and empty idler cars shall have no more than a total of 80 cars in the train. Trains exceeding 5,500 tons must operate with a single distributed power unit either cut in or on rear of train.

**47(A). Train Makeup Instructions and Locomotive Requirements Applicable to Conventional, Distributed Power and Manned Helpers**

Note: In the application of instructions below, the terms "DP and "DP remote consist(s)" refers to trains utilizing distributed power and/or manned helper consists. The term "rear end" refers to the very end of the train and "cut in" refers to placement within the train with cars on both sides. RPA refers to Rated Powered Axles and can be referenced in SSI, Locomotive Data Table, 2(B).

**1. Maximum Rated Power Axle (RPA) Limitations for Conventional, Distributed Power and Manned Helper Placement**

| Train Type | Head End | Cut In DP/ Helper | Rear end DP/ Helper |
|---|---|---|---|
| Manifest | 42 | 24 | 16 |
| Intermodal | 48 | 24 | 16 |
| Empty Bulk Commodity | 24 | 16 | 8 |
| Loaded Bulk Commodity (no empties in train) | 32 | 40 | 24 |

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**DP RPA Differential:**
Single Remote/Helper Consist- If operating with one distributed power consist either cut-in or on the rear, total RPA of head end locomotive consist must not exceed 16 RPA of the total RPA of DP/Helper locomotive remote consist. In addition, total RPA of the remote consist must not exceed 8 RPA of the head end locomotive consist.

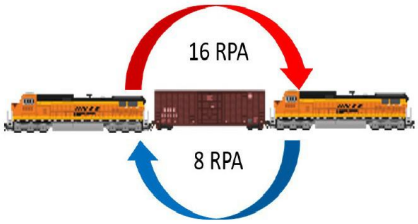



*Figure 1.*

**Multiple DP Consists**
If operating with distributed power cut-in and on the rear, individual consist RPA must not exceed 16 RPA of the next consist towards the rear of the train (Head to Mid; Mid to rear). In addition, RPA of each consist must not exceed 8 RPA of the next consist towards the head end of the train (rear to mid; mid to head end).
Exception - Does not apply to loaded bulk commodity trains.

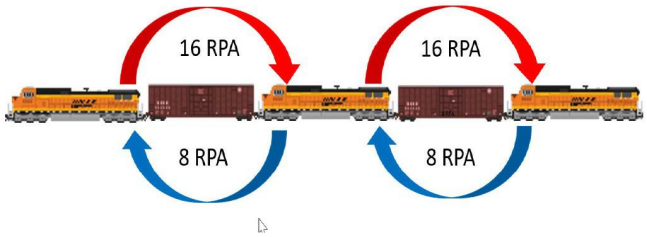



*Figure 2.*

Exception: Trains exceeding 8,000 tons operating on the heavy grade subdivisions listed below, must limit the total RPA of the head end locomotive consist to no more than 8 RPA greater than the total RPA of the DP/Helper locomotive remote consist(s).

Cajon (Main 3, MP 56.6 - MP 62.8, eastward only)
Gateway (MP 178.0 - 188.0, northward only)
Glorieta (MP 775.0 - MP 842.0)
Raton (MP 639.0 - MP 660.0)
North County Transit Coaster (NCTC) (MP 250 - 255)
Scenic (MP 1694.5 - MP 1731.3)
Stampede (MP 41.0 - MP 58.5)
UPRR Moffat Tunnel (MP 17 - 63)
UPRR Mojave (MP 331.3 - MP 381.3, southward only)
UPRR Provo (MP 626 - 685)

**2. DP Remote and ETD Placement Limitations**

| Distributed Power and ETD Length Limitations | |
|---|---|
| **Train description** | **Maximum length allowed, excluding locomotives** |
| Conventional trains and trains operating with a cut-in single DP/ helper consist not equipped with mid-train ETD repeater | 10,000 ft between lead locomotive consist and end of train device (ETD) on rear<br>Exception: Loaded vehicle trains - 8,000 ft between lead locomotive consist and ETD on rear |
| Trains operating with cut-in DP/ helper consist (mid-train ETD repeater) with 2-way ETD | 16,000 ft between lead consist and ETD |
| Solid intermodal trains containing no autoracks operating with a single DP remote consist on rear | 12,000 ft between lead consist and remote DP consist (Lead locomotive and DP remote must be LXA equipped) |
| Solid intermodal (without LXA), manifest, or bulk commodity trains operating with a single DP remote consist on rear | 10,000 ft between lead consist and remote DP consist |
| Train of any type operating with two DP remote consists, cut in and on rear of train | 16,000 ft between lead consist and rear remote DP consist |

Placement instructions for Cut in/Helper DP Consists:

a. One DP Remote Consist

A single DP remote consist cut into the train must not have the cut in DP consist further than 10,000 feet from the head end of train (excluding locomotive length). Single DP consists cut into the train exceeding 8 RPA must be cut in at 300 tons per axle exceeding 8 RPA, but no closer to the head end than 20 cars forward of mid-train, by car count, as long as train makeup requirements next to DP remote consist outlined below in Item 47(A) 3 and 4 are met.

Exception: The requirement to cut in at 300 tons per axle exceeding 8 RPA does not apply to solid intermodal trains, trains with solid intermodal equipment behind cut in DP/Helper consist or trains with loaded bulk commodity cars ahead of cut in DP/Helper consist. On solid intermodal trains, the DP remote consist must be cut in no closer than 1000 feet forward of mid train by length, as long as train makeup requirements next to DP remote consist outlined below in item 47(A) 3 and 4 are met.

b. Two DP Remote Consists

When two DP remote consists are used, they must be positioned with one DP remote consist cut into the train, and one DP remote consist at the rear end. The cut in DP remote consist must not be cut in further than 10,000 feet from the head end of train (excluding locomotive length) and must not be closer to the head end than 20 cars forward of mid-train, by car count.

Exception: Solid intermodal trains operating with two DP remote consists must not have the cut in DP remote consist further than 10,000 feet from the head end of train (excludes locomotive lengths) and must not be closer to the head end than 1,000 feet forward of mid-train, by length.

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### 3. System Distributed Power and Manned Helper Train Makeup Restrictions

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | | Restricted Cars |
|---|---|---|
| **Cut In DP/ Helper, any RPA** | **Rear end DP/ Helper, any RPA** | |
| Must be at rear of train behind any rear end DP/helper consist | | Cars indicated as rear end only. |
| | | AMGX 2-unit solid drawbar connected gondolas |
| | | Occupied caboose |
| **Cut In DP/Helper 9 - 24 RPA** | **Rear end DP/Helper 9 - 16 RPA** | |
| Restricted cars listed must not be within **5 cars or platforms/ wells** ahead of or behind cut in consist.<br>Exception: Does not apply to empty bulk commodity/ combination trains, trains with only baretable equipment behind the cut in DP or to loaded single well double stack cars of any weight (car kind beginning with QU or QK). | Restricted cars listed must not be within **10 cars or platforms/wells** ahead of consist on rear end. | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | | Any conventional car (non-multiplatform) weighing less than 45 tons. Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) |
| | | Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/ container on either segment/ platform. |
| | | Empty platforms/wells of a multiplatform car. All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not. |

### 4. Additional Train Makeup Restrictions Applicable to DP Trains Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP 496.1), Wichita Falls and UPRR Lufkin Subdivisions.

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | Restricted Cars |
|---|---|
| **Cut In DP/Helper or rear end DP/Helper up to 8 RPA** | |
| Restricted cars listed must not be placed within **5 cars or platforms/wells** of DP/Helper consist. (cut in and/or on rear end) | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform. |
| **Cut In or Rear End DP/Helper consist of 9 – 24 RPA** (Does not apply to trains with 2, single-locomotive DP remotes) | |
| Restricted cars listed must not be placed **within 10 cars/ platforms of lead consist and remote consist(s)** | Any conventional car (non-multiplatform weighing less than 45 tons. Exception: Does not apply to empty bulk commodity/ combination trains operating with cut in DP consists or loaded single well double stack cars of any weight (car kind beginning with QU or QK). |
| Restricted cars listed **must not be placed between lead consist and remote consist(s)** | Intermodal equipment other than double stack and autoracks, regardless of how loaded. (Conventional intermodal flat cars, spine cars - car kind QM, QC, QO, Q5 and QE and twin flats - car kinds FM, QB, QD and QL.) |
| | No more than 30 cars with end of car cushioning ahead of any individual consist of 9 RPA or greater. (Does not apply to solid intermodal and solid loaded bulk commodity unit trains with cars equipped with end of car cushioning.) |

### 5. Limiting Tractive Effort When Using Manned Helpers with Trains Not in Compliance with Train Makeup Guidelines:

Conventional trains may be helped from the rear of train with a manned helper only (DP may not be used) when exceeding axle limitation guidelines above if train is disabled and not in compliance with train makeup restrictions for DP/Helper service as outlined above. Tractive effort limit when exceeding 8 rated powered axles and helping trains not in compliance with DP/Helper train makeup guidelines as follows:

**Manned Helper Controlling Locomotive with Amperage Displayed:**
8 rated powered axles - no restriction
10 rated powered axles - 1,000 amps
12 rated powered axles - 950 amps
14 rated powered axles - 900 amps
16 rated powered axles - 850 amps

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**Manned Helper Controlling Locomotive with Tractive Effort Displayed:**

Limit total tractive effort of AC consist to 100,000 lbs. Total AC locomotive consist tractive effort is determined by multiplying tractive effort indicated on display of controlling locomotive and multiplying by the total number of operative AC locomotives in the consist.

Example: A controlling unit of a two-unit AC locomotive consist should not be allowed to produce more than 50,000 lbs. of tractive effort.

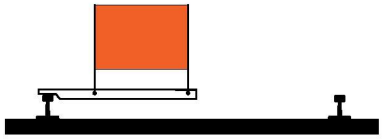
**48. Operations Testing**

BNSF will use the following banners as stop indications when operations testing for compliance where train, engine or on-track equipment movements are required to stop short of the items listed in operating rules GCOR 6.22 (excludes Banner #3), 6.27, 6.28 and MWOR 6.27, 6.28, 6.50:

1. A high visibility red/orange Stop/Obstruction banner displayed square on point to simulate on-track equipment.




2. A high visibility red/orange Stop banner, square or rectangular in shape and approximately 18 by 18 inches in size.



Banner 1 or 2 may be used on any track (main, controlled siding, yard, industry, etc.) for movements governed by GCOR/MWOR 6.27 Restricted Speed, GCOR/MWOR 6.28 Movement on Other Than Main Track, GCOR 6.22 Maintaining Control of Train or Engine (stopping 400 feet short of banners is applicable on a Main Track or controlled siding only), or MWOR 6.50 Movement of On-Track Equipment. These banners will be placed between the rails of the track, and simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banner.

3. Banner 3 may only be used on yard or industry tracks governed by GCOR/MWOR 6.28. Do not use on switches equipped with switch point indicators (GCOR 8.10) or sidings in TWC territory to simulate a switch or derail lined improperly.



High visibility red/orange with horizontal yellow bar Switch Point/Derail Location Stop banners, square or rectangular in shape and approximately 5 inches by 6 inches. These banners may only be used at existing switch point or derail locations, with one banner placed on each rail directly across from one another, to simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banners.

**49. Responsibilities and Certification**

**Engineers**

In the application of the following guidelines, the term "engineer" applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

Before beginning each shift or tour of duty, all engineers must ensure their CFR Part 240 certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before operating a locomotive.

**1. General Responsibilities**

Engineers are responsible for and must maintain their certification.

a. Engineers must be certified in the appropriate class of service to operate a locomotive.
b. Engineers must certify according to federal regulations (49 CFR Part 240) and BNSF Railway certification requirements and programs.
c. Engineers must have their CFR Part 240 electronic certificate accessible, displaying the correct class of service on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.
d. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Engineers must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.
e. Engineers and Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.

     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, engineer must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.
f. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.

Changes must be reported when:

1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement
2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meets the minimum requirements without any corrective device.

The minimum hearing and vision requirements are:

1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels
2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Engineer Certification Requirements for Operating Locomotives**

Certified engineers may operate locomotives under the following conditions:

a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.

b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hostling purposes.

c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.

d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Before operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.

e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
Note: An RCO Operator must have a minimum of 30 tours of duty as a Certified Remote Control Operator before training a student.

f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed before October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

**3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment**

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency,
- Route familiarization, and
- Special or unique equipment.

**a. Skills Proficiency**

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception: The period is extended to 12 months for RCO if they are also certified as a train service engineer.

**b. Route Familiarization**

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six months:

Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions.

Train service engineers assigned to new routes or who become unqualified on current assigned routes are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or requalify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train service engineer to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

**4. Special Equipment Proficiency**

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment. A certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

**5. Route Familiarization Pilots**

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

a. Train Service Engineers:
   1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
   2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

b. Remote Control Operators:
   1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
   2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Conductors**

In the application of the following guidelines, the term"conductor" applies to a crew member in charge of a train or yard crew and passenger conductor who has received emergency preparedness training.

Before beginning each shift or tour of duty, all conductors must ensure their CFR Part 242 electronic certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before performing service as a conductor.

**1. General Responsibilities (applies to any person with certification as a Conductor)**

Any person certified as a Conductor is responsible for and must maintain their certification.

a. Conductors must certify according to federal regulations (49 CFR Part 242) and BNSF Railway certification requirements and programs.

b. Conductors must have their CFR Part 242 electronic certificate accessible on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.

c. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Conductors must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.

d. Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   • Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   • Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.
   Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, conductor must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.

e. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.
   Changes must be reported when:
   1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement.
   2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meet the minimum requirements without any corrective device.

   The minimum hearing and vision requirements are:
   1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels

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2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Maintaining Conductor Route Familiarization**

Certified employees must maintain proficiency as a conductor as it pertains to route familiarization.

**Route Familiarization**
Route familiarization is required in order to perform service as a certified conductor without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by local supervisor, route familiarization is maintained by observing the route biennially based on the calendar year when performing service in any capacity (engineer or trainman). If the route has not been observed once in a 24 month period, qualification will expire at the end of the calendar year. Other methods of maintaining route familiarization may also be available as specified by local supervisor.

Conductors assigned to new routes or who become unqualified on current assigned routes are required to contact their local supervisor who will advise the number of trips required to qualify or re-qualify on that route. If and when a conductor is qualified at the completion of these trips, a supervisor will then authorize the conductor to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does not include a section of main track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**3. Route Familiarization Pilots**

Employees will be assisted by a pilot if called to perform service as a conductor on a route lacking territory qualification:

a. When a conductor lacks Main Track territory qualification, the pilot must be a certified employee and meets the territory qualification requirements for the Main Track physical characteristics and is not an assigned member of the crew.
b. When a conductor was previously qualified on the Main Track, but qualifications have expired, the pilot can be an assigned member of the crew, other than the locomotive engineer who meets the territorial qualification requirement for Main Track physical characteristics.

If a conductor is called and lacks territorial qualification on other than Main Track and the assistance of a certified employee pilot is not practicable, the conductor must reference an appropriate job aid to satisfy this requirement.

**50. Rail Security Sensitive Material (RSSM) Instructions**

**Chain of Custody Documentation for Rail Security Sensitive Material**

When RSSM shipments in BNSF custody are set out enroute due to mechanical defect, the Resource Operations Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3, who will arrange for attendance. The PBX/MRAS radio system may be used for this communication.

Federal regulations require Chain of Custody documentation for Rail Security Sensitive Material (RSSM) in the cases described below.

Rail Security-Sensitive Material (RSSM) includes a shipment of one or more of the categories and quantities listed below:

1. Rail car containing more than 5,000 lbs (2,268 kg) of a Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous by inhalation, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation, and Division 6.1 liquids assigned to hazard zone A or hazard zone B.
3. Rail car containing a highway route-controlled Class 7 (radioactive) material.

These materials are identified with the Special Car Handling Code “RC”, Restricted Commodity , and /or “RSSM HAZMAT” in the starred box that identifies hazmat shipments.

Except at locations identified by Division General Order, employees must execute and document Positive Transfers of Custody any time a loaded rail car identified by SCHI code “RC” is:

1. Pulled from or spotted to an industry
2. Delivered or received in interchange

Employees can make a positive transfer of custody when:

1. Physically located on site in reasonable proximity to the rail car.
2. Capable of responding to unauthorized access or activity at or near the rail car, including immediately contacting law enforcement or other authorities.
3. They immediately respond to unauthorized access or activity at or near the rail car by contacting law enforcement or other authorities.

This requirement applies both to BNSF employees and representatives of shippers, consignees, and interchange carriers making positive transfers of custody. A positive transfer of custody can take place only if representatives of both companies are present.

When a representative of an interchange carrier is not available where required, “RC” shipments must not be delivered, but may be received if proper paperwork can be obtained per Hazardous Material Instructions Item II. Contact a supervisor for disposition of “RC” shipments when a representative is not available to accept delivery.

If an RSSM shipment is delivered by connecting carrier and left on the interchange transfer unattended, transfer of custody information must show connecting carrier employee’s name as “unattended”.

Any car identified an RSSM shipment will require “Chain of Custody” documentation. Empty “residue” cars will not be identified with this code.

BNSF employees must confer with the customer or interchange road representative to ensure both of their documentation records contain the same information. The chain of custody documentation must include the following:

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1. The first six digits of the employee's ID (e.g. b123456)
2. The date and time of the actual custody transfer.
3. The station at which the "RC" cars are transferred.
4. The person's first and last name to or from whom custody is being transferred.
5. The car initials and numbers.

Completing the chain of custody documentation:

1. TSS, TSS Xpress, or Mobile Train Reporting (MTR) are the preferred methods for documentation.
2. Utilize the Chain of Custody Form on the back of the GTB or work order when TSS, TSS Xpress, or MTR is not available due to work performed on line.
   a. When documenting a written chain of custody, employees must enter the information in TSS or TSS Xpress when access to a computer system becomes available.
   b. If a computer system is not available, utilize the FAX number at top of printed chain of custody form.
   c. Hours of service employees must complete the chain of custody documentation before expiring from duty under the hours of service.
   d. When documenting the chain of custody in printed form, employees must deliver the chain of custody documentation to a relief crew or supervisor for entry in to the system via TSS, TSS Xpress, or fax prior to the completion of the tour of duty when possible. This delivery must also be documented on the chain of custody form.
   e. When not possible to deliver the printed chain of custody documentation to a relief crew or supervisor prior to completion of the tour of duty, employees must enter the chain of custody documentation into the system via TSS, TSS Xpress, or fax when returning for next tour of duty.

Chain of custody procedures when receiving an "RC" freight car in interchange:

1. Loaded "RC" freight cars entering a yard from a foreign carrier must be recorded by the BNSF employee assuming responsibility to receive the "RC" car.
2. Employees should use the new TSS or TSS Xpress function "CUSTODY" to record the person's name from which custody is received along with the date and time of custody interchange. If an advance waybill list is not available, documentation must be done on printed format and entered into TSS or TSS Xpress when available.
3. Division Management will identify the point of contact for acceptance of interchange at each location.
4. A visual security inspection must take place with these cars when practical and must take place before departure from the interchange point. This is typically done during normal freight car safety inspections that are currently performed.

**Locations of High Threat Urban Area (HTUA)**

The following BNSF locations have been designated as HTUAs.

| | | |
|---|---|---|
| Anaheim | Kansas City | Riverside, CA |
| Bakersfield, CA | Los Angeles | San Antonio |
| Bay Area | Memphis | Sacramento |
| Chicago | New Orleans | San Diego |
| Dallas/Ft Worth | Oklahoma City | Seattle |
| Denver | Omaha | St Louis |
| El Paso | Phoenix | Tulsa |
| Houston | Portland | Twin Cities |

HTUA and associated boundaries will be identified by Division General Order.

**Attendance Requirements**

Shipments identified as "RSSM" must be attended at all times while inside an HTUA. RSSM shipments inside an HTUA are considered attended when:

- Located at an industry, when plant personnel have accepted chain of custody.
- Located in a yard which is staffed 24 hours per day.
  - Employees in the yard must be able to routinely view cars physically or by camera.
  - Employees designated as responsible for RSSM cars will be identified by Division General Order and must be able to respond to unauthorized access or activity by contacting law enforcement or other authorities.
- Located within a train with an on-duty crew, authorized employee or representative physically present.

Exceptions to above requirement will be identified by Division General Order.

Employees designated by Division General Order as responsible for location of RSSM cars inside HTUA are required to:

- Contact law enforcement or other authorities to report unauthorized access to RSSM cars.
- Know the placards and designations used to identify RSSM shipments.

Employees responsible for handling RSSM cars within the HTUA are required to:

- Know the contact information outlined by Division General Order for BNSF personnel who are responsible for location of cars within HTUA.
- Know the placards and designations used to identify RSSM shipments.

Note: BNSF Crews operating on foreign railroads must comply with these attendance requirements unless otherwise specified by the foreign railroad's instructions.

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**Appendix A - Track Flagging Examples**

The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by rule.

Yellow and yellow-red flags will be displayed on all main tracks and sidings leading to the track affected. Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In multiple Main Track territory, when a restriction is placed on a crossover, or in single Main Track territory when a restriction is placed on a turnout not affecting the Main Track, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

In situations in multiple Main Track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.

**Single Main Track**

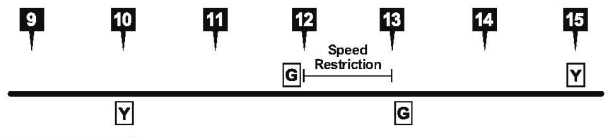



Diagram 1.

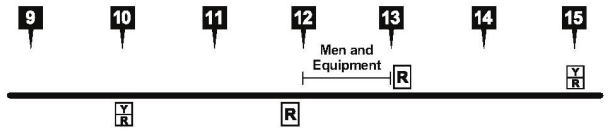



Diagram 2.

**Display of Green Flags with Overlapping Yellow Flags**

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

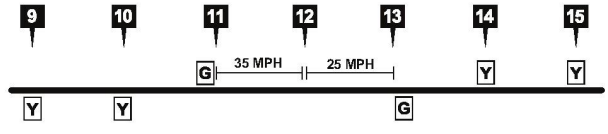



Diagram 3.

**Single Main Track (Sidings at the 2-mile point)**

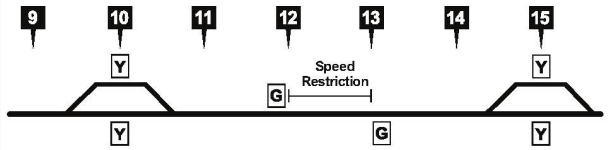



Diagram 4.

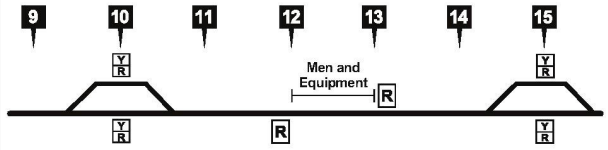



Diagram 5.

**Restriction on Siding**

Speed restrictions on sidings will be short flagged. Location of short flag must be indicated in track bulletin or track warrant.

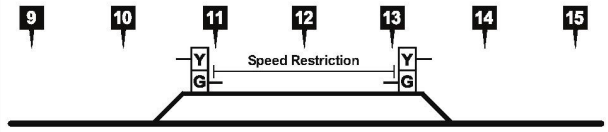



Diagram 6.

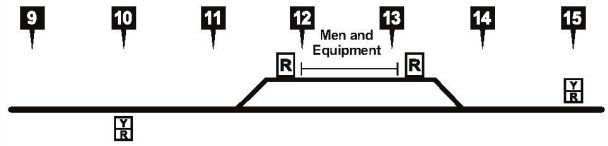



Diagram 7.

Train crews would determine the track affected by the information contained in their track bulletin.

**Speed Restriction on Main Track Where Siding is Adjacent**

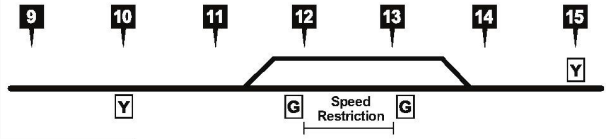



Diagram 8.

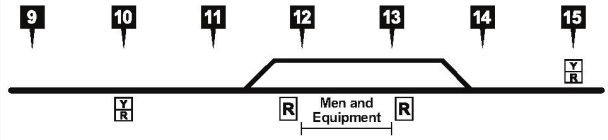



Diagram 9.

Train crews would determine the track affected by the information contained in their track bulletin.

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## Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance

Location of short flag must be indicated in track bulletin or track warrant.

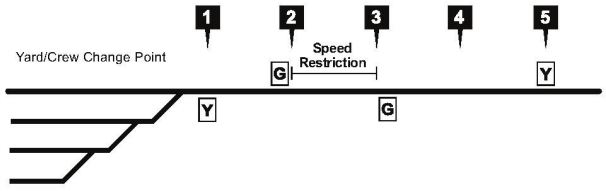



Diagram 10.

## When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

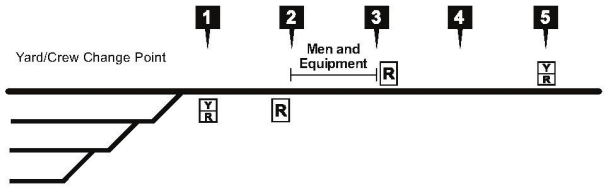



Diagram 11.

## Speed Restriction at Foreign Line Junction

Location of short flag must be indicated in track bulletin or track warrant.

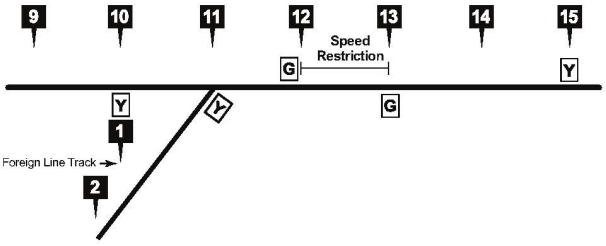



Diagram 12.

## Foreign Line junction Near Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

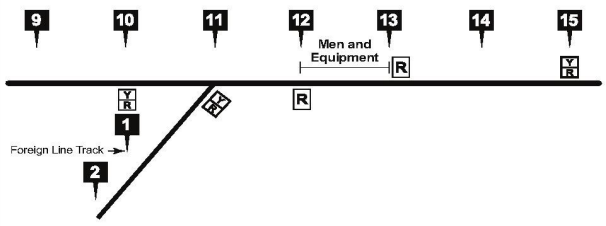



Diagram 13.

## Speed Restriction at BNSF Junction

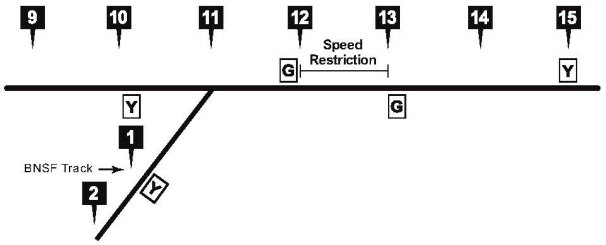



Diagram 14.

## BNSF Junction Near Men and Equipment

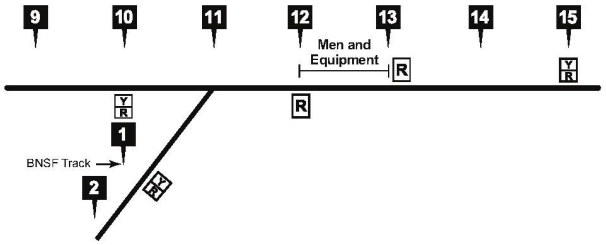



Diagram 15.

## Men and Equipment with Junction and Intervening Switch

Red flags at the limits of Form B and Main Track junctions within the limits.

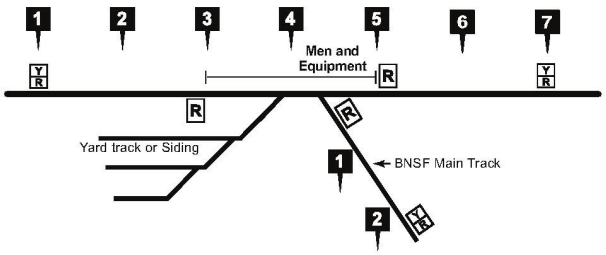



Diagram 16.

## Speed Restriction Just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

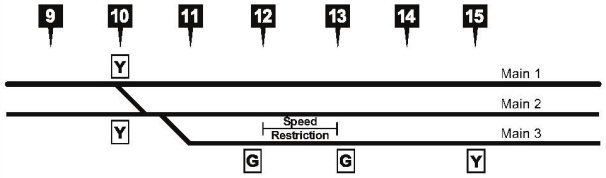



Diagram 17.

## Men and Equipment just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

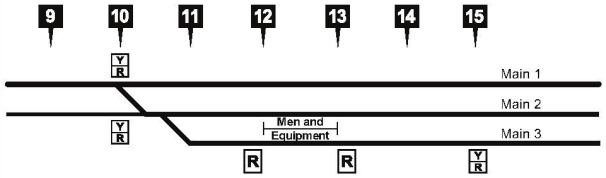



Diagram 18.

## Speed Restriction Just Beyond Turnout to Main 1

Train crews would determine the track affected by the information contained in their track bulletin.

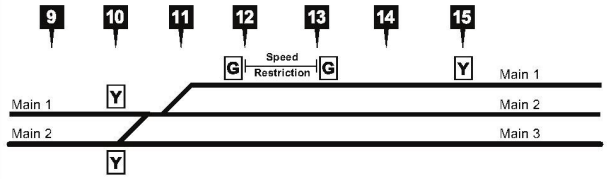



Diagram 19.

## Men and Equipment Just Beyond Turnout to Main 1

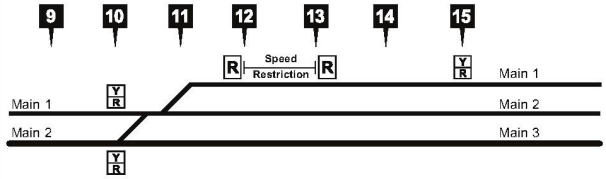



Diagram 20.

## Speed Restriction on Multiple Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

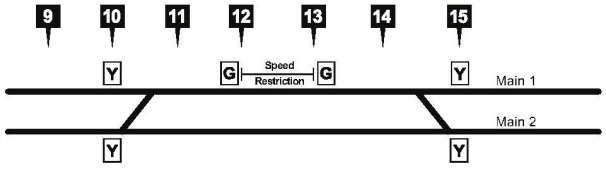



Diagram 21.

## Men and Equipment on Multiple Main Track

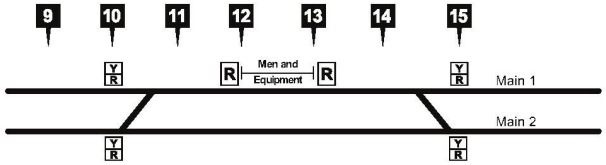



Diagram 22.

## Speed Restriction on Main 1 (CTC Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.

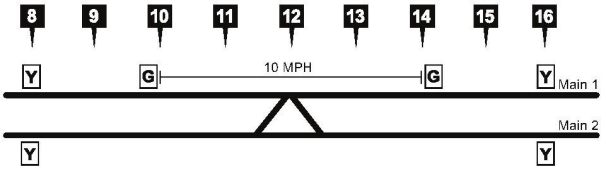



Diagram 23.

## Speed Restriction on Main 1 (CTC and ABS Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.

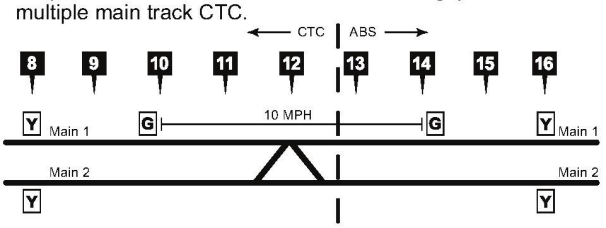



Diagram 24.

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**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.

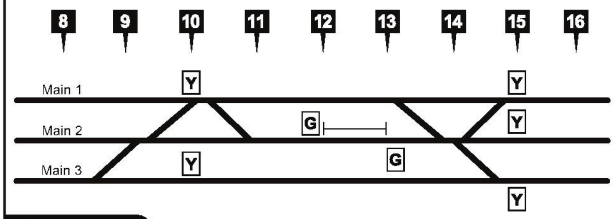



Diagram 25.

**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**

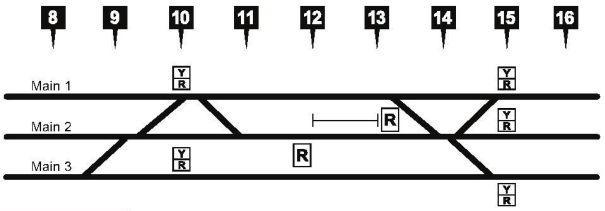
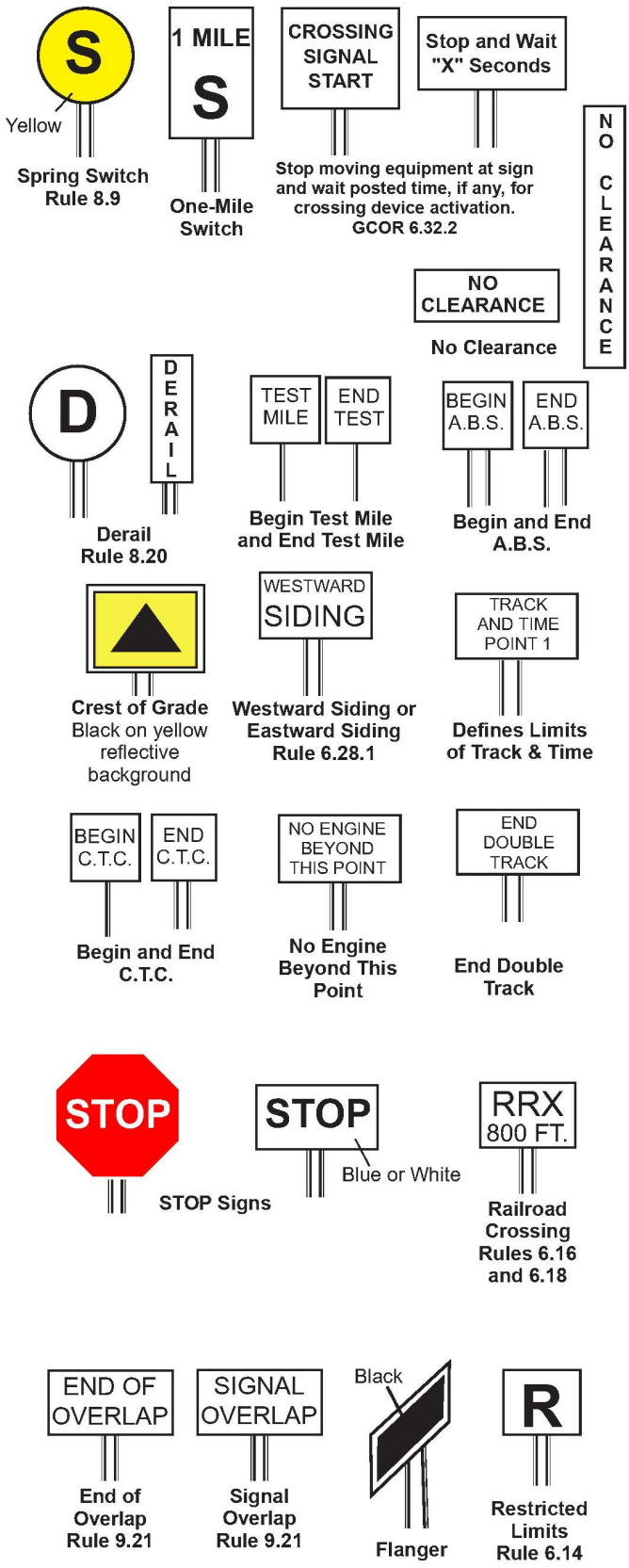
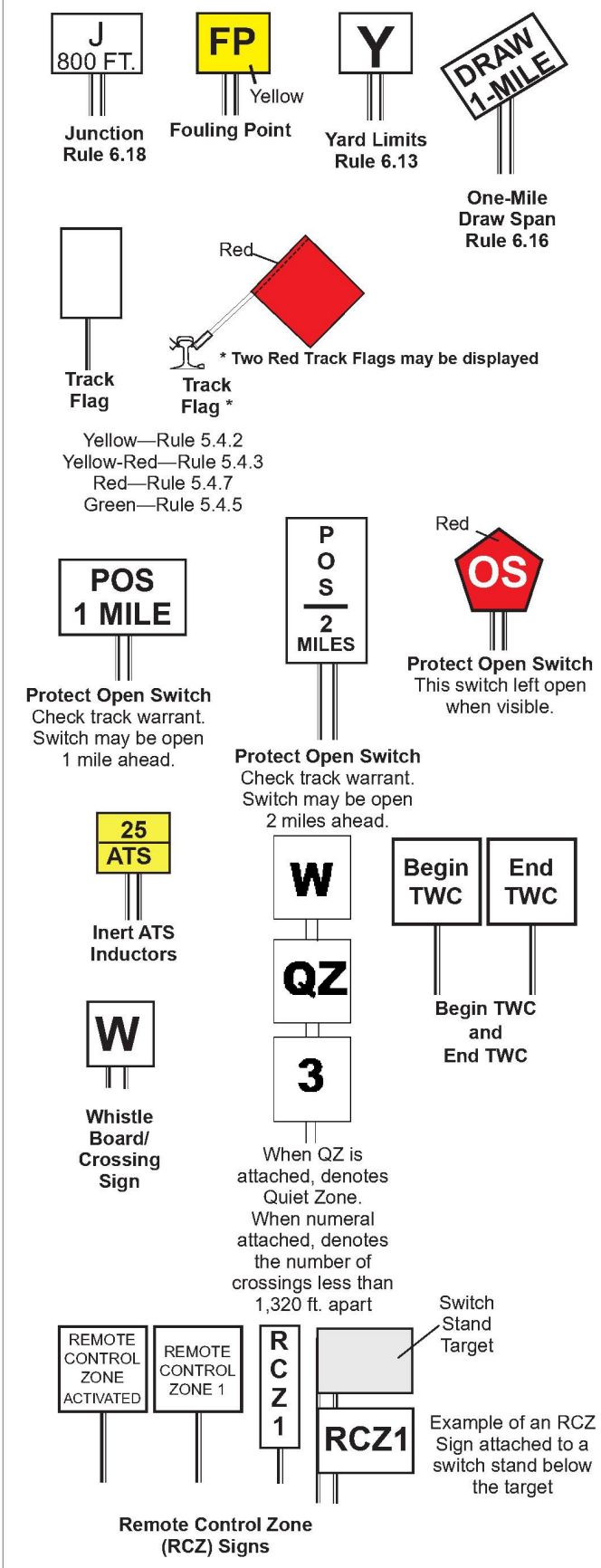



Diagram 26.

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Appendix B - Roadway Signs



TOC Home

**Appendix C - Division/Subdivision Index**

| Division | Subdivisions |
|---|---|
| California | Alameda Corridor |
| | Bakersfield |
| | Cajon |
| | Harbor |
| | Lucerne Valley |
| | Mojave |
| | Needles |
| | San Bernardino |
| | San Diego |
| | Stockton |
| Chicago | Aurora |
| | Barstow |
| | Beardstown |
| | Brookfield |
| | Chicago |
| | Chillicothe |
| | Des Moines |
| | Marceline |
| | Mendota |
| | Ottumwa |
| | Peoria |
| | St. Croix |
| | Thomas Hill |
| | Yates City |
| Heartland | Afton |
| | Amory |
| | Bayard |
| | Bellwod |
| | Birmingham |
| | Cherokee |
| | Council Bluffs |
| | Creston |
| | Cuba |
| | Fort Scott |
| | Giltner |
| | Hannibal |
| | Napier |
| | Omaha |
| | Ravenna |
| | River |
| | St. Joseph |
| | Thayer North |
| | Thayer South |
| Kansas | Arkansas City |
| | Boise City |
| | Dalhart |
| | Douglass |
| | Emporia |
| | Hereford |
| | La Junta |
| | Panhandle |
| | Raton |
| | Strong City |
| | Topeka |
| | Twin Peaks |
| Montana | Big Sandy |
| | Broadview |
| | Choteau |
| | Circle |
| | Colstrip |
| | Copper City |
| | Crosby |
| | Dickinson |
| | Fairfield |
| Montana (cont'd) | Forsyth |
| | Ft. Benton |
| | Glasgow |
| | Great Falls |
| | Grenora |
| | Helena |
| | Hettinger |
| | Hi Line |
| | Kootenai River |
| | Laurel |
| | Lewistown |
| | Milk River |
| | Mobridge |
| | Niobe |
| | Sarpy Line |
| | Scobey |
| | Sidney Line |
| | Sweet Grass |
| | Valier |
| Northwest | Bellingham |
| | Cherry Point |
| | Coeur d'Alene |
| | Columbia River |
| | Fallbridge |
| | Gateway |
| | Kettle Falls |
| | Lakeside |
| | New Westminster |
| | Oregon Trunk |
| | Scenic |
| | Seattle |
| | Spokane |
| | Stampede |
| | Sumas |
| | Yakima Valley |
| Powder River | Akron |
| | Angora |
| | Beatrice |
| | Big Horn |
| | Black Hills |
| | Brush |
| | Butte |
| | Campbell |
| | Canyon |
| | Casper |
| | Cody |
| | Dutch |
| | Front Range |
| | Golden |
| | Hastings |
| | Lester |
| | Orin |
| | Pikes Peak |
| | Pueblo |
| | Sand Hills |
| | Spanish Peaks |
| | Valley |
| | Wymore |
| Red River | Avard |
| | Bay City |
| | BBRX |
| | Chickasha |
| | Conroe |
| | Creek |
| | DFW |
| | Ft. Worth |
| | Galveston |
| Red River (cont'd) | Houston |
| | Lafayette |
| | Lampasas |
| | Longview |
| | Madill |
| | Mykawa |
| | Plainview |
| | Red River Valley |
| | Red Rock |
| | Silsbee |
| | Slaton |
| | Sooner |
| | Venus |
| | Wichita Falls |
| Southwest | Carlsbad |
| | Clovis |
| | Coronado |
| | Defiance |
| | El Paso |
| | Gallup |
| | Glorieta |
| | Lee Ranch |
| | Mines |
| | Phoenix |
| | Seligman |
| | Springerville |
| Twin Cities | Aberdeen |
| | Allouez |
| | Appleton |
| | Brainerd |
| | Browns Valley |
| | Canton |
| | Casco |
| | Corson |
| | Devils Lake |
| | Drayton |
| | Glasston |
| | Grand Forks |
| | Hanley Falls |
| | Hannah |
| | Hib Tac |
| | Hillsboro |
| | Hinckley |
| | Jamestown |
| | KO |
| | Lakes |
| | Madison |
| | Marshall |
| | Mayville |
| | Midway |
| | Mitchell |
| | Monticello |
| | Moorhead |
| | Morris |
| | Noyes |
| | O'Neill |
| | Prosper |
| | Rolla |
| | St. Paul |
| | Sioux City |
| | Staples |
| | Warwick |
| | Watertown |
| | Wayzata |
| | Westhope |
| | Zap Line |

TOC Home

**Subdivision Index**

| Subdivision | Division |
|---|---|
| Aberdeen | Twin Cities |
| Afton | Heartland |
| Akron | Powder River |
| Alameda Corridor | California |
| Allouez | Twin Cities |
| Amory | Heartland |
| Angora | Powder River |
| Appleton | Twin Cities |
| Arkansas City | Kansas |
| Aurora | Chicago |
| Avard | Red River |
| Bakersfield | California |
| Barstow | Chicago |
| Bay City | Red River |
| Bayard | Heartland |
| BBRX | Red River |
| Beardstown | Chicago |
| Beatrice | Powder River |
| Bellingham | Northwest |
| Bellwood | Heartland |
| Big Horn | Powder River |
| Big Sandy | Montana |
| Birmingham | Heartland |
| Black Hills | Powder River |
| Boise City | Kansas |
| Brainerd | Twin Cities |
| Broadview | Montana |
| Brookfield | Chicago |
| Browns Valley | Twin Cities |
| Brush | Powder River |
| Butte | Powder River |
| Cajon | California |
| Campbell | Powder River |
| Canton | Twin Cities |
| Canyon | Powder River |
| Carlsbad | Southwest |
| Casco | Twin Cities |
| Casper | Powder River |
| Cherokee | Heartland |
| Cherry Point | Northwest |
| Chicago | Chicago |
| Chickasha | Red River |
| Chillicothe | Chicago |
| Choteau | Montana |
| Circle | Montana |
| Clovis | Southwest |
| Cody | Powder River |
| Coeur d'Alene | Northwest |
| Colstrip | Montana |
| Columbia River | Northwest |
| Conroe | Red River |
| Copper City | Montana |
| Coronado | Southwest |
| Corson | Twin Cities |
| Council Bluffs | Heartland |
| Creek | Red River |
| Creston | Heartland |
| Crosby | Montana |
| Cuba | Heartland |
| Dalhart | Kansas |
| Defiance | Southwest |
| Des Moines | Chicago |
| Devils Lake | Twin Cities |
| DFW | Red River |
| Dickinson | Montana |
| Douglass | Kansas |
| Drayton | Twin Cities |
| Dutch | Powder River |
| El Paso | Southwest |
| Emporia | Kansas |
| Fallbridge | Northwest |
| Fairfield | Montana |
| Forsyth | Montana |
| Fort Scott | Heartland |
| Front Range | Powder River |
| Ft. Benton | Montana |
| Ft. Worth | Red River |
| Gallup | Southwest |
| Galveston | Red River |
| Gateway | Northwest |
| Giltner | Heartland |
| Glasgow | Montana |
| Glasston | Twin Cities |
| Glorieta | Southwest |
| Golden | Powder River |
| Grand Forks | Twin Cities |
| Great Falls | Montana |
| Grenora | Montana |
| Hanley Falls | Twin Cities |
| Hannah | Twin Cities |
| Hannibal | Heartland |
| Harbor | California |
| Hastings | Powder River |
| Helena | Montana |
| Hereford | Kansas |
| Hettinger | Montana |
| Hi Line | Montana |
| Hib Tac | Twin Cities |
| Hillsboro | Twin Cities |
| Hinckley | Twin Cities |
| Houston | Red River |
| Jamestown | Twin Cities |
| Kettle Falls | Northwest |
| KO | Twin Cities |
| Kootenai River | Montana |
| La Junta | Kansas |
| Lafayette | Red River |
| Lakes | Twin Cities |
| Lakeside | Northwest |
| Lampasas | Red River |
| Laurel | Montana |
| Lee Ranch | Southwest |
| Lester | Powder River |
| Lewistown | Montana |
| Longview | Red River |
| Lucerne Valley | California |
| Madill | Red River |
| Madison | Twin Cities |
| Marceline | Chicago |
| Marshall | Twin Cities |
| Mayville | Twin Cities |
| Mendota | Chicago |
| Midway | Twin Cities |
| Milk River | Montana |
| Mines | Southwest |
| Mitchell | Twin Cities |
| Mobridge | Montana |
| Mojave | California |
| Monticello | Twin Cities |
| Moorhead | Twin Cities |
| Morris | Twin Cities |
| Mykawa | Red River |
| Napier | Heartland |
| Needles | California |
| New Westminster | Northwest |
| Niobe | Montana |
| Noyes | Twin Cities |
| Omaha | Heartland |
| O'Neill | Twin Cities |
| Oregon Trunk | Northwest |
| Orin | Powder River |
| Ottumwa | Chicago |
| Panhandle | Kansas |
| Peoria | Chicago |
| Phoenix | Southwest |
| Pikes Peak | Powder River |
| Plainview | Red River |
| Prosper | Twin Cities |
| Pueblo | Powder River |
| Raton | Kansas |
| Ravenna | Heartland |
| Red River Valley | Red River |
| Red Rock | Red River |
| River | Heartland |
| Rolla | Twin Cities |
| San Bernardino | California |
| San Diego | California |
| Sand Hills | Powder River |
| Sarpy Line | Montana |
| Scenic | Northwest |
| Scobey | Montana |
| Seattle | Northwest |
| Seligman | Southwest |
| Sidney Line | Montana |
| Silsbee | Red River |
| Sioux City | Twin Cities |
| Slaton | Red River |
| Sooner | Red River |
| Spanish Peaks | Powder River |
| Spokane | Northwest |
| Springerville | Southwest |
| St. Croix | Chicago |
| St. Joseph | Heartland |
| St. Paul | Twin Cities |
| Stampede | Northwest |
| Staples | Twin Cities |
| Stockton | California |
| Strong City | Kansas |
| Sumas | Northwest |
| Sweet Grass | Montana |
| Thayer North | Heartland |
| Thayer South | Heartland |
| Thomas Hill | Chicago |
| Topeka | Kansas |
| Twin Peaks | Kansas |
| Valier | Montana |
| Valley | Powder River |
| Venus | Red River |
| Warwick | Twin Cities |
| Watertown | Twin Cities |
| Wayzata | Twin Cities |
| Westhope | Twin Cities |
| Wichita Falls | Red River |
| Wymore | Powder River |
| Yakima Valley | Northwest |
| Yates City | Chicago |
| Zap Line | Twin Cities |

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# Reference Information

**Speed Tables**

| SPEED TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour |
| Min. | Sec. | | Min. | Sec. | | Min. | Sec. | |
| - | 36 | 100 | - | 58 | 62.1 | 1 | 40 | 36.0 |
| - | 37 | 97.3 | - | 59 | 61.0 | 1 | 42 | 35.3 |
| - | 38 | 94.7 | 1 | - | 60.0 | 1 | 44 | 34.6 |
| - | 39 | 92.3 | 1 | 02 | 58.0 | 1 | 46 | 34.0 |
| - | 40 | 90.0 | 1 | 04 | 56.2 | 1 | 48 | 33.3 |
| - | 41 | 87.8 | 1 | 06 | 54.5 | 1 | 50 | 32.7 |
| - | 42 | 85.7 | 1 | 08 | 52.9 | 1 | 52 | 32.1 |
| - | 43 | 83.7 | 1 | 10 | 51.4 | 1 | 54 | 31.6 |
| - | 44 | 81.8 | 1 | 12 | 50.0 | 1 | 56 | 31.0 |
| - | 45 | 80.0 | 1 | 14 | 48.6 | 1 | 58 | 30.5 |
| - | 46 | 78.3 | 1 | 16 | 47.4 | 2 | - | 30.0 |
| - | 47 | 76.6 | 1 | 18 | 46.1 | 2 | 05 | 28.8 |
| - | 48 | 75.0 | 1 | 20 | 45.0 | 2 | 10 | 27.7 |
| - | 49 | 73.5 | 1 | 22 | 43.9 | 2 | 15 | 26.7 |
| - | 50 | 72.0 | 1 | 24 | 42.9 | 2 | 30 | 24.0 |
| - | 51 | 70.6 | 1 | 26 | 41.9 | 2 | 45 | 21.8 |
| - | 52 | 69.2 | 1 | 28 | 40.9 | 3 | - | 20.0 |
| - | 53 | 67.9 | 1 | 30 | 40.0 | 3 | 30 | 17.1 |
| - | 54 | 66.6 | 1 | 32 | 39.1 | 4 | - | 15.0 |
| - | 55 | 65.5 | 1 | 34 | 38.3 | 5 | - | 12.0 |
| - | 56 | 64.2 | 1 | 36 | 37.5 | 6 | - | 10.0 |
| - | 57 | 63.2 | 1 | 38 | 36.8 | 12 | - | 5.0 |

| FEET | TENTHS OF A MILE |
|---|---|
| 528 | .1 |
| 1,056 | .2 |
| 1,584 | .3 |
| 2,112 | .4 |
| 2,640 | .5 |
| 3,168 | .6 |
| 3,696 | .7 |
| 4,224 | .8 |
| 4,752 | .9 |

## TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

To assist in determinig where to start sounding the whistle as described in Whistle Signal 7, use the following:
At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

| Train Speed | Delay to Sound Whistle |
|---|---|
| 40 MPH | 3 seconds |
| 35 MPH | 6 seconds |
| 30 MPH | 10 seconds |
| 25 MPH | 16 seconds |
| 20 MPH | 25 seconds |
| 15 MPH | 40 seconds |
| 10 MPH | 1 minute 10 seconds |

## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

This version contains the following updated pages:
**August 4, 2021:** 23, 50.
**September 1, 2021:** 44.
**October 1, 2021:** 54, 55, 56, 57.
**November 4, 2021:** 10.
**November 11, 2021:** 53.
**December 1, 2021:** Title page, 14.

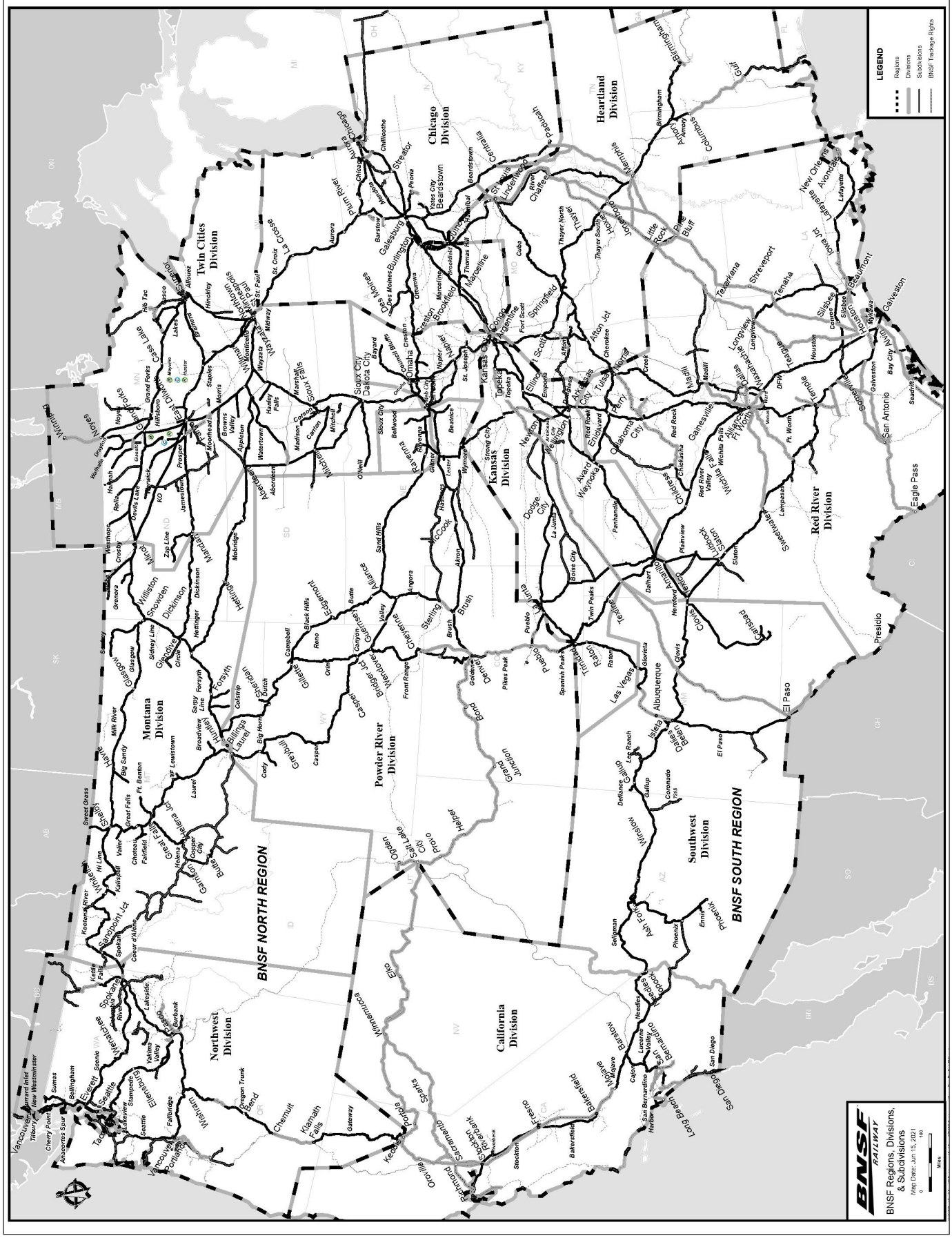
BNSF RAILWAY

# System Special Instructions

## All Subdivisions No. 2

In Effect at 0800
Central, Mountain and Pacific
Continental Time
**August 4, 2021**
(Including updates through
December 1, 2021)

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LEGEND
Regions
Divisions
Subdivisions
BNSF Trackage Rights
BNSF NORTH REGION
BNSF SOUTH REGION
Northwest Division
Montana Division
Twin Cities Division
Chicago Division
Powder River Division
Kansas Division
Heartland Division
Red River Division
Southwest Division
California Division
BNSF RAILWAY
BNSF Regions, Divisions, & Subdivisions
Map Date: Jun 15, 2021
Miles

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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In timetable individual subdivision special instructions, the number at the bottom of the station table column entitled "Miles to Next Station" denotes total miles on the subdivision.

## 1. Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars. Refer to 1(B) regarding maximum authorized speed of engines (locomotives).

Amtrak trains operating in Cascade service may observe Talgo speeds. The consist must be entirely Horizon and/ or Amfleet Single Level Passenger Equipment. If the PTC Onboard Consist does not reflect the correct train type, crews may modify their consist to "Tilt" Train Type.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

| | MPH |
|---|---|
| Freight trains under 100 TOB | 60 |
| Freight trains 100 TOB and over | 45 |
| Freight trains handling empty cars | 55 |
| Exception: Intermodal Equipment, see SSI 1(C) | |
| Empty coal trains (if train list indicates no speed restricted equipment) | 60 |
| Key trains | 50 |
| Solid consist of military equipment | 55 |
| Trains with welded rail loaded in open end gondolas | 45 |
| Non-signaled territory | 49 |
| Against the current of traffic | 49 |
| Through turnouts | 10 |
| Tracks governed by GCOR / MWOR 6.28 | 10 |
| Tracks governed by GCOR / MWOR 6.28 where timetable indicates a speed greater than 20 MPH | 20 HER |
| Within Mechanical Department limits | 5 |
| Movements on or off turntables and droptables | 1 |

Foreign railroad locomotives - Speed restrictions posted inside the locomotive cab of foreign railroad locomotives which are less than that listed above only apply when locomotive is utilized as a lead, controlling locomotive.

| Equipment | Main | Branch |
|---|---|---|
| Side dump ballast cars, BNSF car kind YHA and YHH, loaded | 45 | 45 |
| AMTK 1400-1569 (material handling cars) | 60 | 60 |
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 | 45 | 45 |
| Boeing cars, loaded, BNSF 800100-800135, MTTX 978384, 978576, 978596, 978644, 978649, 978660, 978781, 979162, 980855, 981187, 981218 | 45 | 45 |
| Clay cars, RARW 3801-4199 | 45 | 45 |
| Flatcars, empty, NP 580400-580739 | 50 | 50 |
| Flatcars, empty, bulkhead wallboard: BN 616475-616674, CS 616375-616474 DJTX 9300-9398, SOU 115250-115274 | 45 | 45 |
| Flatcars, empty, bulkhead, Picked up enroute and not on conductor's wheel report or work order | 45 | 45 |
| Flatcars, empty or loaded, OTTX 93561, 97852, 97861, 97914, 97920 | 45 | 45 |
| Flatcars, loaded with track panels, ATSF 190298, 209144, 209149 | 35 | 35 |
| Gondolas, empty, KCS 801011-802930, CR 576026-579245 | 45 | 45 |
| Gondolas, empty, Picked up enroute and not on conductor's wheel report or work order | 50 | 50 |
| Gondolas, empty or loaded, PC 598500-598999 CR 598500-598990, SP 345000-345699 | 45 | 45 |
| Herzog clip cars, HZGX 153, 154, 155 | 50 | 50 |
| Herzog MPM Machines, designated to be placed next ahead of caboose or at rear of cabooseless trains. | 55 | 55 |
| Hopper cars, covered, empty, (unless no speed restriction is indicated by train documentation) ASGX 1-50, BCAX 50-149, CGLX 4200-4249, CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904, CRDX 20100-20199, CRDX 20200-20209, CRDX 20300-20324, CRDX 20525-20724, CSXT 242000-242299, DME 29000-29324, DJLX 97300-97319, FLOX 3200-3241, FLOX 983400-983414, GACX 3000-3139, GACX 3150-3196, GACX 3202-3359, GACX 3486-3510, GACX 7959-8008, GCCX 55000-55099, LCEX 801-820, LCEX 824-898, NAHX 21000-21054, NAHX 29700-29867, NAHX 320000-320399, NCUX 20001-20050, NCUX 20106-20130, NRLX 32500-32605, NRLX 32706-32725, NVCX 9500-9619, NS 294220-294319, RGCX 650-899, RGCX 902-1067, RGCX 1069-1142, RGCX 1183-1222, SDWX 9700-9919, SDWX 10000-10333, SDWX 11000, SHPX 432118-432137, SHPX 432057-432116, WW 7001-7300 | 45 | 45 |
| Hopper cars, empty, WFAX 84654-84700 TUGX 36001-36125 | 45 | 45 |

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| Equipment | Main | Branch |
|---|---|---|
| Loram, 400 and 300 series and Harsco rail grinder, traveling (not in work mode) as a train on its own power with a conductor or engineer pilot | 50 | 50 |
| Loram, 400 series and Harsco rail grinder, when controlling movement from the rear control cab in the lead. | 50 | 50 |
| Loram, 300 series rail grinder, when controlling movement from rear control cab in the lead | 40 | 40 |
| Refer to manufacturer's maximum operating speeds when operating on descending grades. | | |
| Loram, LMIX 409, 410, 412, 414, 415, 417, KMUX 110, 750<br>Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars.<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 50 | 45 |
| Loram, LMIX 203, 204<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 55 | 55 |
| Ore cars, empty, 35 ft., OLB 1000-1099 | 50 | 50 |
| Ore cars, loaded, 35 ft., OLB 1000-1099 | 45 | 45 |
| P811, BNSF 922999 | 50 | 50 |
| Plasser machines,PACX 293, 2630, 2645, 3024,4656, 4657, 4774, 4775 | 45 | 45 |
| Plasser THS 2000, tie gang consist | 30 | 30 |
| Plasser 08 & 09 Tampers, PTS 61, 62 & 90 Stabilizers, BDS 100 & 200 Ballast machines, MFS40 & 60 cars and ULS3000 conveyor cars (traveling in a train or under own power with a conductor or engineer pilot) | 50 | 50 |
| Ribbon rail cars, empty | 45 | 45 |
| Ribbon rail cars, loaded | 35 | 25 |
| Ribbon rail loading and unloading cars | 45 | 45 |
| Roadrailer equipment (empty or loaded) | 60 | 60 |
| Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader handled in trains | 30 | 25 |
| Exception: Locomotive cranes/pile drivers with booms removed and secured to a leads car with the counterweight properly secured to the locomotive crane/pile drive car body, billed as empty car. | 45 | 25 |
| Exception: Jordan spreader, BNSF 939800 - 939804 | 50 | 50 |
| Trains and engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.<br>Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by roadmaster or covered by specific instructions. | | |

| Equipment | Main | Branch |
|---|---|---|
| Scale test cars<br>Exception: cars listed below have a minimum gross weight of 100,000 lbs. and may move in any position in the train and at maximum authorized speed for which the train is qualified. BN 979020-979024, BN 979026, BNSF 979019, FGWX 100000-700000, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, WWBX 199917-199919 | 35 | 25 |
| Schnabel type cars, empty. Cars must be handled on or near the rear of trains not exceeding 100 cars in length, must not be handled in trains requiring pusher service and must not be humped or switched with motive power detached | 45 | 45 |
| Exception: GEGX 21154, GEGX 21155, GEX 80000, GEX 80002, MAMX 1001 | 40 | 40 |
| Exception: KRL 3600, KRL 3601, GEX 80003, HEPX 200, PTDX 202 | 25 | 25 |
| Tank cars, ACFX 17451-17495, NATX 10841-10865 | 45 | 45 |
| Tank cars, DVLX 4001-4190, UTLX 76517, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736-76738, 76742-76745, 76747, 76748, 76750, 76751, 78256-78269, 78272, 78274, 78278, 78281, 78285, 78287-78293, 78326, 78328-78333, 78336-78340, 78343, 78344, 78347, 78348, 78350. 78353 | 40 | 40 |
| Tank cars, empty, CORX | 50 | 50 |
| Tank cars, loaded, CELX 6400-6455, 10400-10443 (must not be handled nearer than 6 cars from locomotive when loaded) | 45 | 45 |
| Wedge plow or dozer, hauled in tow | 35 | 25 |

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH and 21 MPH can cause derailments due to harmonic rocking of cars. Where specified by timetable individual subdivision special instructions or general order, the following restrictions apply when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains consisting entirely of empty equipment, which cannot maintain a minimum speed of 21 MPH, must reduce speed to 13 MPH or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Passenger Trains/Engines**

| | MPH |
|---|---|
| Amtrak | 90* |
| Metrolink | 90* |
| Metra | 79* |
| Sounder (Sound Transit) | 79* |
| Northstar | 79* |
| All other classes | 70 |

Exception:
When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, maximum speed is 45 MPH.

* Engine without cars must not exceed 70 MPH.

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**1(C). Multiplatform Equipment**

**Intermodal Equipment**

| TSS Car Kind Codes | Car Description | Units or Segments | Axle Count | Control Valves and/or Car Count | Trailers=T Containers=C Either=T/C |
|---|---|---|---|---|---|
| Articulated cars | | | | | |
| QY | Doublestack | 5 | 12 | 3 | C |
| QV | Doublestack | 3 | 8 | 2 | T/C |
| QM | Spine Car | 3 | 8 | 2 | T/C |
| QC | Spine Car | 3 | 8 | 2 | T |
| QO | Spine Car | 5 | 12 | 3 | T/C |
| Q5 | Spine Car | 5 | 12 | 3 | C |
| QE | Spine Car | 5 | 12 | 3 | T |
| FM | Twin Flat | 2 | 6 | 2 | C |
| M2D M3D M2F M3F | Automax | 2 | 6 | 2 | |
| Non-Articulated Cars | | | | | |
| QW | Doublestack | 3 | 12 | 3 | T/C |
| QX | Doublestack | 4 | 16 | 4 | T/C |
| QT | Doublestack | 5 | 20 | 5 | C |
| QB QD | Twin Flats | 2 | 8 | 2 | T |
| QL | Twin Flats | 2 | 8 | 2 | T/C |
| Single Unit Intermodal Cars | | | | | |
| QU | Doublestack | 1 | 4 | 1 | T/C |
| QK | Doublestack | 1 | 4 | 1 | T/C |

**Car Kind Codes for Intermodal Equipment**

In addition to the intermodal equipment listed above, all car kind codes beginning with the letter M, P or Q are considered intermodal equipment. On cars shown above, only the first two characters are required to identify car type, with the exception of those identifying Automax cars. However, train lists may use more than two characters to identify a given car type.

**Definitions of Multiple-Unit Equipment**

*Articulated*—Refers to cars with multiple units (segments) that are connected with articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**

Tons per operative brake on cars above is determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.

(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.

(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**

In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Cabooses and any car loaded with container chassis are considered loads for the purpose of the rule.

Exception: Intermodal equipment with empty units/platforms are restricted to 55 MPH only if not equipped with constant contact side bearings (CCSB). BNSF train documentation now provides guidance on this empty unit restriction as it applies to the intermodal cars listed above. When handling all intermodal equipment, train documentation will provide one of three messages as follows:

1. Train does not contain any intermodal equipment with empty units without CCSB.
2. Train is restricted to 55 MPH due to intermodal equipment with empty units without CCSB.
3. Train may be restricted to 55 MPH due to possibility of intermodal equipment having empty units without CCSB - Inspect to Verify.

In the event message 3 above is on train documentation, if train is otherwise authorized to exceed 55 MPH, a visual inspection must be made to determine the loaded status of units/platforms on car(s) listed. The inspection results must be noted on train list for relieving crews' guidance on train's maximum authorized speed.

When adding intermodal equipment enroute, train documentation may not have been generated. When this occurs, consider such car(s) to be restricted to 55 MPH if any units/platforms are empty. Subsequent train lists produced for crews after a pick up enroute will provide speed information on cars based on if CCSB-equipped.

This does not apply to trains that are otherwise restricted to 55 MPH or less such as when handling cars not listed above that are empty, other equipment speed restrictions, fuel conservation speed limits, etc.

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

Cajon Sub..... MP 56.6 to MP 80, all tracks
Raton Sub ..... MP 639 to MP 660
Glorieta Sub ..... MP 775 to MP 810
Glorieta Sub ..... MP 818 to MP 842
Pikes Peak Sub ..... MP 52 to MP 66
Hi Line Sub..... MP 1151 to MP 1166, both tracks
Midway Sub..... MP 0.5 to MP 2, both tracks
Phoenix Sub ..... MP 381.0 to MP 402.0
St. Paul Sub ..... MP 430 to MP 5, both tracks
Scenic Sub ..... MP 1694.5 to MP 1731.3
Stampede Sub..... MP 41.0 to MP 58.5
San Diego Sub ..... MP 250 to MP 255 (NCTC)
Gateway Sub..... MP 178.0 to MP 188.0

**On UP Railroad:**

Mojave Sub ..... MP 331.3 to MP 381.3
Moffat Tunnel Sub ..... MP 19 to MP 50
Moffat Tunnel Sub ..... MP 58.1 to MP 61.7
Provo Sub..... MP 630.5 to MP 638.1
Provo Sub..... MP 652 to MP 682
Roseville Sub ..... MP 115 to MP 170
Roseville Sub ..... MP 195 to MP 210

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## 2(B). Locomotive Data Tables

| DC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| SW1 | 4 | 0 | 600 | 99 |
| SW10 | 4 | 0 | 1,000 | 125 |
| NW10 | 4 | 0 | 1,200 | 126 |
| SW12 | 4 | 0 | 1,200 | 125 |
| SW15 | 4 | 0 | 1,500 | 131 |
| MK1200G | 4 | 0 | 1,200 | 125 |
| SWBL-W | 4 | 0 | 1,500 | 131 |
| GP7 | 4 | 0 | 1,500 | 125 |
| GP9 | 4 | 4* | 1,750 | 130 |
| GP9B | 4 | 0 | 1,750 | 124 |
| GP10 | 4 | 0 | 1,800 | 130 |
| GP15, GP15-1 | 4 | 0 | 1,500 | 129 |
| GP18 | 4 | 0 | 1,800 | 124 |
| GP20 | 4 | 4BT | 2,000 | 131 |
| GP28 M/P | 4 | 4BF | 1,800 | 130 |
| GP30 | 4 | 4BT | 2,500 | 131 |
| GP35 | 4 | 4BT | 2,500 | 133 |
| GP38,GP38-2 | 4 | 4ET | 2,000 | 143 |
| GP39, GP39-2 | 4 | 4EF# | 2,300 | 135 |
| GP40 M,E,-2 | 4 | 4BF | 3,000 | 139 |
| GP40X | 4 | 4BF | 3,000 | 139 |
| GP50 | 4 | 4EF | 3,600 | 138 |
| GP53, GP53L | 4 | 4EF | 3,000 | 136 |
| GP60M | 5+ | 5EF+ | 3,800 | 137 |
| GP60B | 5+ | 5EF+ | 3,800 | 135 |
| B23-7 | 4 | 4EF | 2,300 | 134 |
| B30-7A | 4 | 4BF | 3,000 | 138 |
| B36-B-7 | 6+ | 4EF | 3,600 | 140 |
| B-39-8 | 6+ | 5EF+ | 3,900 | 140 |
| B-40-8 | 6+ | 5EF+ | 4,000 | 142 |
| SD7 | 6 | 5BF+ | 1,500 | 157 |
| SD9 | 6 | 5 * | 1,750 | 184 |
| SD18 | 6 | 0 | 1,800 | 175 |
| SD35 | 6 | 5 * # | 2,500 | 195 |
| SD38-2 | 6 | 6 * # | 2,000 | 184 |
| SC38P | 6 | 6BF | 2,000 | 196 |
| TEBC6 | 6 | 6B | 2,000 | 194 |
| SD39 | 6 | 6EF | 2,500 | 195 |
| SD40, SD40-2 | 6 | 6EF * # | 3,000 | 196 |
| SD45, SD45-2 | 6 | 6ET | 3,600 | 198 |
| SD50 | 6 | 6EF | 3,600 | 194 |
| SD60, SD60M | 7+ | 8EF+ | 3,800 | 201 |
| SD70M | 7+ | 9EF+ | 4,000 | 200 |
| SD75M | 7+ | 9EF+ | 4,300 | 197 |
| C30-7 | 6 | 6EF# | 3,000 | 209 |
| SF30C | 6 | 6EF | 3,000 | 160 |
| C36-7 | 6 | 6EF | 3,600 | 197 |
| C40-8 | 7+ | 8EF+ | 4,135 | 197 |
| C44-9W | 8+ | 8EF+ | 4,400 | 196/210 |
| ES44DC | 8+ | 8EF+ | 4,400 | 210 |

| AC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| **C44AC[1] AC4400CW[1] AC4400EV[1] CW44AC[1]** | 8+ | 10EF+ | 4,400 | 210 |
| 1TM c/o | 8+ | 8EF+ | | |
| 2TM c/o | 6 | 6EF | | |
| 3TM c/o | 4 | 5EF | | |
| 4TM c/o | 3 | 3EF | | |
| 5TM c/o | 2 | 2EF | | |
| **C60[1] C60AC[1]** | 8+ | 12EF+ | 6,000 | 210 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **ES44AC[1]** | 8+ | 10EF+ | 4,400 | 208 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **SD70MAC** | 8+ | 8EF | 4,000 | 208 |
| 1 Truck c/o | 4 | 5EF | | |
| **SD70ACE** | 8+ | 10EF+ | 4,300 | 208 |
| 1TM c/o | 6 | 6EF | | |
| **SD70ACE4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD70ACT4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD80MAC** | 8+ | 10EF | 5,000 | 210 |
| 1 Truck c/o | 5+ | 5EF | | |
| **SD90/43MAC** | 8+ | 10EF | 4,300 | 208 |
| 1 Truck c/o | 4 | 6EF | | |
| **SD90MAC** | 8+ | 11EF | 6,000 | 208 |
| 1 Truck c/o | 6 | 6EF | | |
| **ES44C4[1] AC44C4M[1]** | 8+ | 8EF+ | 4,400 | 208 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **ET44C4[1]** | 8+ | 8EF+ | 4,400 | 214 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |

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Note: Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.

| | |
|---|---|
| + | Power or dynamic brake axle rating exceeds actual axles |
| ¹ | GE/EMD Locomotives (C44AC, C60AC, SD70ACT4, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives. |
| % | PTC Equipped |
| * | May not be equipped with dynamic brakes |
| # | May be equipped with standard range dynamic brakes |
| E | Extended dynamic brake range |
| B | Basic dynamic brake range |
| F | Flat dynamic brake system |
| T | Tapered dynamic brake system |

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in timetable individual subdivision special instructions.

| |
|---|
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 |
| Dozers |
| Empty ribbon rail cars (if moving with no train list or if identified as “Rear End Only” on train list) |
| Herzog clip cars: HZGX 153, 154, 155 |
| Herzog MPM:<br>HZGX 164, 165, 167, 174, 1740, 176, 1760, 178, 1780, 179, 1790, 180, 1800<br>HZGX 189, 1890, 18900, 192, 1920, 19200, 193, 1930, 19300, 194, 1940, 19400, 195, 1950, 19500, 199, 1990, 19900, 200, 2000, 20000, 205, 2050, 20500, 206, 2060, 20600, 207, 2070, 20700 |
| Jordan spreaders |
| Locomotive cranes |
| Loram, LMIX 203, 204, 409, 410, 412, 414, 415, 417, KMUX 110, 750 |
| Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars |
| Outfit cars (Exception: Univans may be placed anywhere in the train.) |
| P811, BNSF 922999 |
| Pile drivers |
| Plasser machines, PACX 293, 2630, 2645, 3024, 4656, 4657, 4774, 4775 |
| Plasser THS 2000, tie gang consist |
| Rear end only cars |
| Ribbon rail loading and unloading cars |
| Rotary snowplows |
| Wedge plows |

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

Locomotive cranes/pile drivers, wrecking derricks or similar equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by Roadmaster or covered by specific instructions. This equipment must not be humped, cut off in motion or struck by any car moving under its own momentum.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Hand brakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant).
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the timetable individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks as outlined in SSI Item 5.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines (including foreign line cars) having:

- elevated hoses for dump door air line,
  or
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level),

must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

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**3(D). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(E). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locking devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

A. If the adjacent track is a Main Track, controlled siding or other track where CTC is in effect, authority must be obtained as prescribed by MWOR 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR 6.19 to control movement by the work area.
B. If the adjacent track is a track governed by GCOR/MWOR 6.28 (i.e. yard, industry track, etc.), movement must not be permitted to pass air dump cars which are being charged or being unloaded.

**3(F). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

A. Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
B. Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
C. Cars with defective couplers may be transported to repair facilities behind caboose.
D. A crew transport train consisting of no more than two cabooses positioned between two locomotives may be operated during inclement weather conditions. The lead locomotive must be the controlling locomotive, with trailing locomotive isolated.

**3(G). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 MPH through other than Main Track turnouts.

**3(H). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(I). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid-drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**3(J). Herzog Articulated Equipment**

Herzog articulated equipment (all-purpose machines) are restricted as rear end only because drawbar connection between Herzog locomotive and cars does not have vertical restraint.

Switching Restrictions: All Herzog equipment must not be humped or handled with other freight cars during switching operations. This equipment must be cut off or set over so that remaining cars can be switched.

**3(K). Herzog Rail Unloading Machine**

A Herzog Rail Unloading Machine (RUM) may be coupled to a work train for rail unloading purposes only. The train must remain stationary while the RUM couples to the train in self-propelled mode. The following restrictions apply to trains with a Herzog RUM coupled to the train:

- All train movements may be made only at the direction of a qualified Herzog RUM operator accompanying the equipment.
- Maximum speed with Herzog RUM on trailing end of the movement is 15 MPH.
- Maximum speed with Herzog RUM on leading end of the movement is 10 MPH.

**3(L). Handling Roadway Equipment Equipped with Couplers and Air Hoses by Trains or Engines**

To prevent equipment damage, the following restrictions apply when handling Roadway Equipment equipped with rail car couplers and air hoses during train or switching movements:

- All air hoses must be coupled and air brakes cut in.
- An Engineering employee must be present when switching this equipment, including shoving movements.
- When moving between work locations all P811, UC01, UC03, UC08, UC09, UC10 and SC29-35 machines, and the flat cars transporting supporting equipment accompanying these machines, must be handled in a dedicated unit train or a dedicated work train. No additional rail cars may be handled in these trains.
- The heaviest machine may be placed as the rear car of a train only as directed by an Engineering employee.
- Maximum allowable speed while transporting in a train is 50 MPH.

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**4. Geometry Test Car Instructions**

Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, 93 and NXGX 390 (NxGen Car) must move in train by themselves. Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, and 93 are not required to have an ETD at the rear of the car when the car is occupied.

Work Orders for trains handling unmanned geometry test cars BNSF 90, 91, 92, and 93 will include instructions advising the conductor to call the Geometry Car Desk at 817-352-4559.

BNSF 808306, BNSF 808382, BNSF 808387, BNSF 808426, BNSF 808655 and BNSF 808683 are buffer cars assigned to Geometry Car service. When operating in a Geometry Car Consist, these buffer cars are considered to be passenger train equipment with a maximum authorized speed of 70 MPH.

Trains handling test cars AAR 112, BNSF 82 and BNSF 83 behind the locomotive consist may operate without further restricting the train from the maximum authorized speed designated in timetable individual subdivision special instructions. GCOR 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR 5.12 or 5.13. These cars are considered to be occupied at all times.

**FRA Track Geometry Inspection Cars**

The Federal Railroad Administration (FRA) Office of Railroad Safety-Automated Track Inspection Program (ATIP) manages a fleet of geometry test cars that measure track geometry for compliance with the Federal Track Safety Standards. FRA geometry cars are pulled behind a railroad-owned locomotive and staffed with FRA employees and contractors.

**FRA Geometry Car Operation**

1. Each train dispatcher and train crew will be governed by these instructions.
2. Before ATIP testing commences, the FRA representative (assisted by the test car director) is responsible for overall safety and will:
   a. Conduct a face-to-face job safety briefing with the train crew and all occupants of the test car concerning onboard safety appliances and standard operating procedures.
   b. Be aware of and discuss the operational and safety conditions, and on-track protection procedures, which may change throughout the course of the ATIP test; and update the job safety briefing accordingly.
3. The FRA representative will communicate directly with the railroad to ensure all operating rules, special instructions, and safety rules in effect on the test route are understood and correctly applied.
4. Trains consisting entirely of FRA geometry cars are restricted to BNSF timetable passenger train speeds, and must not exceed the following maximum equipment speeds: DOTX 216, 125 MPH; DOTX 217, 219, 220 and 221, 90 MPH; and DOTX 218, 80 MPH.
5. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew. The FRA Geometry Car operator relies on the train crew to identify relevant railroad physical characteristics, movement authority limits and authorized speeds.

**FRA Geometry Car Protection**

1. Neither FRA nor contractor employees will operate a railroad switch or derail, and will rely upon a railroad employee to perform that function. After receiving authority for placement from the appropriate railroad representative, protective devices owned by FRA, i.e., signs, derails, and locking devices, will be applied by an FRA representative.
2. FRA geometry cars must not be relocated or coupled to other rolling equipment without permission of FRA. At the request of FRA or the railroad, the following additional protective measures must be used:
   a. Within a locomotive servicing area or car shop area, the railroad's Blue Signal Protection rules and procedures will govern.
   b. When FRA geometry cars are unoccupied, FRA may request additional protection, such as posted guards, provided by the railroad and reimbursed by FRA.
   c. Where provided, a remotely controlled switch, providing entrance to the track occupied by FRA geometry cars, will be aligned against movement to that track. Blocking devices applied by the control operator will be placed on the switch and signal controls to prevent undesirable access.
   d. A manually operated switch will be aligned against movement to a track occupied by the FRA geometry car, and secured with an effective locking device, exclusive to FRA. In addition, the switch stand's operating mechanism will be equipped with an FRA-provided, visible, all-weather display tag, warning any users: "OUT OF SERVICE - DO NOT OPERATE."
   e. If a switch-locking device cannot be provided, as described above, FRA-provided portable derails will be used as an alternative to restrict access in either direction. In addition to the portable derails, the placement of warning signs will be displayed, indicating the presence of FRA geometry cars. The warning signs will be affixed or adjacent to the derail. FRA-provided derails will not be placed nearer than 150 feet from each end of the geometry cars, except where appropriate.
   f. If an FRA geometry car is standing alone, in addition to applying the hand brake, one wheel will be securely chocked to prevent movement.
   g. Either on a Main Track or other than Main Track, before anyone goes on, under, or between FRA track geometry cars, the locomotive engineer will apply the independent brake on the locomotive, remove the locomotive reverser, and open the field generator switch. The individual requiring protection will place a "Do Not Operate" tag on the locomotive control stand at a location where it is readily visible to the locomotive engineer or operator at the controls of that locomotive. The "Do Not Operate" tag may only be removed by the person who placed it on the locomotive control stand. Additionally, if adjacent tracks are, or will be, fouled by the individual going on, under, or between the FRA track geometry car, appropriate adjacent track protection must be afforded before going on, under, or between the car.

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**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- For hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E).
- For tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E).

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601399) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

The actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to locomotive cranes, ribbon rail cars or specialized work equipment.

Item 1(B) of the individual subdivision special instructions may include loaded railcar weight references, in which case the actual car weight may exceed the maximum by up to one ton due to weighing tolerances.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

**Table 5.**

**Car Restrictions**

| Line No. | No/ Axles and/ or Car Length | Typical Car Types & Partial Listing of Representative Car Number Series | **Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H**<br>Indicated weight limits are applicable to either single car or multiple car movements except for:<br>"143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements.<br>"P," which denotes that this type of car is permitted without special autohrization.<br>"NP," which denotes that this type of car is not permitted without special authorization. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E | F | G | H |
| 1 | 4 axles & length less than 35'0" | Hopper | 89 | NP | 89 | NP | NP | NP | NP | NP |
| 2 | 4 axles & length 35'0" to 36'11" | Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179 | 134 | 117 | 134 | 117 | 110 | 110 | 110 | 110 |
| | | | A | B | C | D | E | F | G | H |
| 3 | 4 axles & length 37'0" to 38'11" | Hopper, tank cars ATSF 82056-82990, 176900-177861 | 141 | 123 | 141 | 123 | 117 | 117 | 117 | 117 |
| 4 | 4 axles & length 39'0" to 40'11" | Hopper, tank cars BN 435500-435999 | 143 | 131.5 | 143 | 131.5 | 123 | 123 | 123 | 123 |
| 5 | 4 axles & length 41'0" to 42'11" | Hopper, tank cars BN 476000-476019 | 143 | 143 | 143 | 143 | 134 | 134 | 134 | 131.5 |
| 6 | 4 axles & length 43'0" to 44'10" | Hopper, tank cars | 143 | 143 | 143 | 143 | 136 | 136 | 134 | 131.5 |
| 7 | 4 axles & length 44'11" to 49'5" | Hopper, gondola, tank cars BN 686000-686054 COILCAR | 143 | 143 | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 8 | 4 axles & length greater than or equal to 49'6" | Hoppers, flats, gondolas, tank cars | 143X | 143X | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 9 | 6 axles | ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 LMIX 403, 409, 410, 412, 414, 418, NS 185541-185542 | 197 | 197 | 197 | 197 | 197 | 197 | 185 | NP |
| 10 | 6 axles | DODX 39810-39832, KRL 600430 | 197 | 197 | 185 | 185 | 185 | 178 | 175 | NP |
| 11 | 6 axles | Others | 185 | 185 | 170 | 170 | 170 | 165 | 160 | NP |
| 12 | 8 axles & length greater than or equal to 80'0" | ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021 | 263 | 263 | 263 | 263 | 263 | 235 | 235 | NP |
| 13 | 8 axles & length greater than or equal to 55'0" and less than 80'0" | | 263 | 255 | 263 | 255 | 235 | 235 | 235 | NP |
| 14 | 8 axles & length less than 55'0" | ATSF 90020-90023 | 220 | 195 | 220 | 195 | 180 | 180 | 180 | NP |
| 15 | | Articulated Intermodal | P | P | P | P | P | NP | NP | NP |

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**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Any foreign line carrier operating on BNSF that sets out equipment must notify the BNSF train dispatcher and the BNSF Mechanical Help Desk at the earliest opportunity and provide the following information:

- Equipment being set out including the engine/car number.
- Location where equipment was set out.
- Reason equipment was set out (e.g. flat spots, broken brake rigging, hot bearing, etc.).
- Commodity if a car contains a hazardous material, including but not limited to, Inhalation Hazard car(s).
- Any other pertinent information.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were performed enroute.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the proper track NUMBERS where they report work. Refer to the TRKLIST command in TSS for track numbers at a station or on a subdivision.

**Unit Trains (C, E, G, J, U, and X)**

Unit Trains at origin must report a "Pick Up" event and unit trains at destination must report a "Set Out" event using VTR.

- Report "Set Out" time through the VTR when the set out work is complete at the industry track, trains crews are clear of the equipment and the customer can begin processing the train, or when the unit train is handed off to the facility operator.
- Report "Pick Up" time through the VTR when the train begins departure from the industry track, departing the customer facility.

Train Work Order Package includes the following documents:

- Train list and profile.
- FRA 215.9 Mechanical Defective Cars List (if applicable).
- Hazardous manifest (if train contains hazardous materials).
- Work order for each station.
- Track list of each track to be worked.
- Supplemental Work Order Form.

The following reporting codes will be used to report work performed:

| Reporting Codes | | |
|---|---|---|
| Reporting Instructions for Scheduled/Unscheduled Work | | |
| Code | | |
| CC | CARRIERS CONVENIENCE | (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number. |
| DD | CARS DELIVERED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| IP | INTRA-PLANT SWITCH | (Code, date, time, zone/track/spot) |
| MO | MOVE | (Code, date, time, station name, zone/ track/spot). Use only to reposition a placed car to correct customer inventory. |
| ND | NOT DONE | (When ND code is used, enter ND explanation code or a full written explanation.) |
| OF | CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD | (Code, date, time, station name, zone/ track, name of road and person's name refusing cars) |
| PK | PICKUP | (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order. |
| PU | PULL | (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time, station, zone/ track where cars were left.) |
| RR | CARS RECEIVED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| RS | RESPOT | (Code, date, time, zone/track spot) |
| SO | SETOUT | (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/ number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD. |
| SP | SPOT | (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number. |
| TU | CARS TURNED ON WYE OR TURNTABLE | (Code, date, time, station name, zone/ track/spot) |

**Not Done Reasons - Potential Charge to Customer**

Car Can't Be Pulled - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

Car Can't Be Spotted - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

**Not Done Reasons - Not Chargeable to Customer**

Operation Reason

- Bad Order Car
- Done in Other Direction
- Tonnage Restrictions or Loco Problems
- Instructed to do Other than Scheduled Industry Work
- Not Switched into Train - Unavailable
- Hrs of Service Expired or Short on Time
- Weather Conditions
- Not Granted Mainline Time by Dispatcher
- Other Operating Exception

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**Reporting Methods**

*Radio*—With the exception of trains using the Work Order Reporting system or when reporting work trains, Voice Train Reporting using the MRAS/PBX system is the preferred method of reporting work. Conductors and engine foremen are expected to report as soon as possible after work is performed at each station. If Voice Train Reporting (VTR) or Work Order Reporting System (WORS) is used to report, it is not necessary to call Customer Support.

*Telephone or Cellular Phones*—Telephone or cellular phones assigned to conductors and engine foremen may be used when MRAS/PBX or radio communication is unavailable or radio is congested in order to provide timely reporting in the field.

*Electronic Device*—Computer reporting will not require any written documentation to be forwarded.

Conductors and engine foremen are required to call their designated Customer Support Specialist anytime there are questions or problems with work order information or work to be performed during their tour of duty.

**Work Order Codes**

There are three types of work order codes that appear on work orders: Request Codes, Status Codes and Hold Codes.

| Request Codes | | |
|---|---|---|
| **Code** | **Displays Work to Be Performed** | |
| **IP** | **INTRA-PLANT SWITCH** | Customer request to move a car originally spotted correctly to another spot or track within the industry. Cars are commonly moved per this request to complete loading, for inspection, etc. This switch is chargeable to the customer. |
| **PK** | **PICKUP** | Cars available to be picked up by train, local, road switcher at station. |
| **PU** | **PULL** | Customer request to move a car from an industry track to another track or scheduled destination. |
| **RS** | **RESPOT** | This switch is not chargeable to the customer and should be used only when correcting a railroad error. Customer request to move a car to a different track or spot within the industry after being placed incorrectly. |
| **SO** | **SETOUT** | Cars scheduled to be set out by train, local, road switcher at station. |
| **SP** | **SPOT** | Customer request to spot car for loading/unloading. |
| **TU** | **CARS TURNED ON WYE OR TURNTABLE** | Request to turn a car previously spotted and re-spot. |

| Status Codes | | |
|---|---|---|
| **Displays Current Status of Cars (Does not require any work to be performed)** | | |
| **Code** | | |
| **CP** | **CP** | Constructive placement. (Condition between carrier and customer.) |
| **DD** | **CARS DELIVERED IN INTERCHANGE** | Displays cars scheduled for interchange delivery to a connecting road. |
| **OF** | **CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD** | Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars. |
| **PL** | **PLACED** | Car on spot. (Displays car status and not a request.) |

| Hold Codes | |
|---|---|
| **Carrier/Customer Instructions Have Not Been Provided** | |
| **Scheduled Train Field** | |
| **HOLD ED** | Car to be held for equipment distribution. |
| **HOLD EH** | Car is to be held for embargo. |
| **HOLD HL** | Car is HIWIDE and has not been scheduled to a train. |
| **HOLD LS** | Car is on floating lease being held for customer order. |
| **HOLD ME** | Car is to be held for mechanical inspection. |
| **HOLD MT** | Car not scheduled for outbound train. |
| **HOLD NI** | Car has no instructions for spotting. |
| **HOLD OT** | Car is to be held for local order. |
| **HOLD WH** | Car is to be held for weighing. |
| **HOLD HF** | Car has no measurements/clearances. |
| **SCHI Code Field** | |
| **DO** * | Written delivery order. DO NOT SPOT. |
| **NC** * | Non-credit customer. DO NOT SPOT. |
| **SO** * | Car billed shipper's order. DO NOT SPOT. |
| **ZNTKSP Field** | |
| **00 00 00*** | DO NOT SPOT |

* Do not spot cars with '00 00 00' in the ZNTKSP field or cars with NC, DO or SO in the SCHI field.
(Cars may be pulled or picked up and moved to a location for further disposition when these codes are displayed.)

Work order documents will display work order codes as outlined by customer or carrier for specific instructions to conductors or engine foremen. They will be located in the Special Car Handling Instructions (SCHI) column or in the Scheduled Train column.

**Hours of Service**

Conductors or engine foremen should plan ahead and report scheduled and unscheduled work before hours of service expire. Conductors and engine foremen who relieve crews whose hours of service have expired will be responsible for reporting work performed during their tour of duty. If a crew's hours of service expire and they are unable to report scheduled or unscheduled work, the information must be passed on to the relieving conductor, engine foreman or supervisor who will be responsible to report work for the previous job.

**Pick Up in Block**

When picking up cars, enroute, trains must pick up in block unless otherwise advised by train dispatcher or in conflict with current train makeup instructions.

**7. Dimensional and Special Shipment Restrictions**

All employees involved in handling dimensional or special shipments must be familiar with and are governed by these instructions.

Dimensional loads on BNSF are defined as wider than 11' and/or higher than 17' ATR and/or longer than the length of the car.

Transportation Supervisors: See Management Instruction regarding advance notification requirements for dimensional shipments routed on UPRR or within the state of California.

a. Any dimensional and/or oversize car or special shipment must be accompanied by one of the following: message included with train's work order, track bulletin or message issued by BNSF Clearance Bureau.

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b. Before a dimensional shipment can be assigned to a train the supervisor in charge of train or yard crews (Terminal Manager, Trainmaster, Assistant Trainmaster, Yardmaster, etc.) at that location, or the conductor or yard foreman where no supervisor of train or yard crews is on-duty, must review and verify the dimensional clearance bulletin to ensure shipment is clear over the designated route of travel. After the review is complete the shipment may be assigned to the train appropriately. Issues regarding scheduling and/or train set, please contact Service Scheduling at 817-867-2000. Any issues regarding additional clearance segments and/or a lack of clearance, please contact the Dimensional Clearance Team for assistance at high.wide@bnsf.com.

c. Before a dimensional shipment can be moved in the yard, train or yard crews handling the dimensional shipment must ensure there is adequate clearance on adjacent tracks for safe movement. Clearance bulletins issued by the High Wide Team only protect BNSF main lines.

d. Before a dimensional or special shipment can be moved in a train the supervisor in charge of train crews (Trainmaster, Assistant Trainmaster, Yardmaster) at that location, or the conductor where no supervisor of train crews is on-duty, must obtain permission from the train dispatcher. This does not relieve conductor from complying with GCOR 1.47. When yard supervisors are notified of expected arrival of wide cars, precautions must be taken to safeguard employees in yard.

e. Before a dimensional shipment is picked up on line, conductor must obtain permission from the train dispatcher. When dimensional or special shipment is set out on line, conductor must promptly notify the train dispatcher.

f. Train dispatcher must issue appropriate track warrant, track bulletin or message when dimensional shipment restricts opposing train and confirm message received.

g. Train with dimensional shipment must not pass or be passed by a train in the same direction unless authorized by the train dispatcher or proper safeguards taken.

h. To provide for close observation enroute, all dimensional shipments must be placed in a block next to the lead locomotive consist, or due to the following exceptions as near the lead locomotive consist as possible:

1. Dimensional shipments, including idler cars moving with dimensional shipments, must be placed in compliance with minimum weight requirements outlined in train makeup rules.
2. On trains destined to or operating in the state of California, and train room permits, dimensional shipments must be no closer than the 6th car or platform from the lead locomotive consist. Dimensional shipments placed in train to comply with these requirements are also considered in compliance when enroute from the state of California.
3. Trains received from foreign railroads with dimensional shipment placement other than described above, may proceed to a location specified by train dispatcher to correct the condition.
4. When dimensional shipment is a shiftable load, GCOR 1.37 applies.

Boeing dimensional shipments, identified as having contents ACFTEQ on the train list, must be placed ahead of other dimensional shipments. Trains with one or more dimensional Boeing shipments with contents ACFTEQ, are limited to a combination not to exceed 10 loads and/or empties.

The following idler cars do not count towards the 10 car combination limitation:

| | | |
|---|---|---|
| MTTX 978773 | TTMX 80662 | XTTX 146316 |
| TBCX 737002 to TBCX 737042 | TTMX 80681 | XTTX 146319 |
| TBCX 737067 to TBCX 737084 | TTMX 80857 | XTTX 146322 |
| TTMX 80139 | XTTX 146251 to XTTX 146254 | XTTX 146323 |
| TTMX 80300 | XTTX 146262 | XTTX 146337 |
| TTMX 80635 | XTTX 146264 to XTTX 146267 | XTTX 146339 |
| TTMX 80657 | XTTX 146276 | |

These are specialized Boeing Service idler cars weighing 45 tons or more and may be billed loaded or empty, depending on destination. Trains handling all empty dimensional Boeing cars with contents ACFTEQ are limited to maximum of 25.

Note: In the application of the above, articulated autoveyors (car kinds M2F and M3F) are not considered dimensional shipments. (See Item 46)

No more than five uncovered assembled airplane fuselages may be transported in a train without approval from Boeing.

Airplane fuselages transported in trains from Wichita to Renton must be turned as soon as possible to move nose first in the direction of train travel unless otherwise approved by Boeing.

i. Employees are prohibited from riding excessive dimension cars. This restriction does not apply to:
- Auto-Max cars (car types M2F and M3F)
- Boeing cars - XTTX 146220, XTTX 146232, XTTX 146304, XTTX 146311, XTTX 146298, XTTX 137353

j. Train crews handling dimensional and/or oversize car or special shipment car(s) approaching locations controlled by the train dispatcher and where these car(s) are restricted should communicate with the train dispatcher and jointly determine if a meet or pass of any other equipment at the restricting location(s) can be accomplished safely.

k. When the dimensional message indicates “Stop, Proceed on Hand Signals” at a specific location, the following will apply:
- Stop the train before passing the location specified.
- Check the dimensional load for shifted contents.
- If safe to proceed without damage to shipment or property, move beyond the specified location on instructions from an employee(s) closely observing the shipment, not exceeding 5 MPH until the dimensional shipment clears the location specified.
- If employee(s) is unable to continue observing the shipment closely due to train makeup, topography, etc., movement may continue, not exceeding 5 MPH until the dimensional shipment clears the location specified.

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## 8. Trackside Warning Devices (TWD)

### 8(A). Description

Trackside warning devices (TWD) inspect passing trains for defects or monitor for unusual trackside conditions that could adversely affect the safe and efficient movement of trains. Examples of such devices include detection of the following conditions:

- Overheated journal bearings (hot bearing) (HBD)
- Hot wheels
- Dragging equipment (DED)
- High/Wide/Shifted load (SLD)
- High water
- Earth/Rock slide fence

Individual subdivision special instructions identify the following:

- Detector location
- Detector type

Unless otherwise stated, protection will be hot journal and dragging equipment with bidirectional operation.

Exceptions will be shown as follows:

- Northward direction only (NWD)
- Southward direction only (SWD)
- Eastward direction only (EWD)
- Westward direction only (WWD)
- Dragging equipment only (DED)
- Shifted load only (SLD)
- Detectors that protect bridges, tunnels or other structures
- Exception Reporting detector

### 8(B). Detector Radio Message

While passing over a detector, a pre-alarm message indicating "You have a defect" will be transmitted if a defect is detected. When this pre-alarm message is transmitted, immediately begin reducing speed in preparation to stop after the alarm message is transmitted, utilizing train handling methods that minimize in-train forces. Do not reduce speed below 20 MPH.

After a train has passed a detector, a radio message will be transmitted (unless the detector is defined as "Exception Reporting" or "Failure Reporting" in Item 5(B) of the individual division timetables). This radio transmission will provide alarm message details for defects noted during train passage such as "hot journal" detected, or non-alarm messages such as "no defects" or "integrity failure."

When the entire train has passed the detector and alarm message is transmitted, immediately stop the train utilizing train handling methods that minimize in-train forces.

The detector message is not complete until "Out" is transmitted.

**Train Approaching Detector**

Except in emergency, when approaching train is within 150 feet of a TWD, DO NOT make a radio transmission until the entire train has passed the TWD.

The train crew must have the radio set to the “in service” radio channel, for the Subdivision and location of the TWD, as shown in the timetable. The radio channel should not be changed until the entire train has passed by the TWD location and you have allowed time for the TWD to transmit any messages.

### 8(C). Detector Message and Train Crew Action

Use the following table to determine crew requirements when a detector message is received. If detector indicates more than one detector message or circumstance, comply with each train crew action shown. Radios at Exception Reporting detectors will only transmit a message when an alarm is present. Do not report a failure to transmit to the train dispatcher as is required with other types of detectors.

Note: 5(A) indicates detectors that protect bridges, tunnels or other structures. 5(B) indicates other TWD locations.

**Table No. 1 - 8(C) Non-Alarm Message**

| Type Detector | Non-Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | When detector announces “... no defects”, “Maintenance Required” or when advised by signal maintainer or train dispatcher that there are no defects. | Proceed. | Report “Maintenance Required” to the train dispatcher, unless “Train Too Slow” is transmitted in the same message. Then, no report to the train dispatcher is required. |
| 5(A) | “Integrity Failure” | Stop the train consistent with good train handling. Perform a rolling inspection not exceeding 5 MPH on both sides of the train without entering or traversing protected structure. If unable to stop before a portion of the train has entered or traversed the protected structure, perform a walking inspection of that portion that is on or has already traversed the structure and perform a rolling inspection for the remainder of the train. | Report integrity failure to train dispatcher. |
| 5(A) | “Train Too Slow” or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | None |

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| | | | |
|---|---|---|---|
| 5(B) | "Train Too Slow" or "Integrity Failure" or "Maintenance Required" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | Report "Integrity Failure" or "Maintenance Required" to the train dispatcher unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required. |

**Table No. 2 - 8(C) Alarm Message**

| Type Detector | Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | "First dragging equipment near axle XXX" or "First hot wheel right/left from axle XXX to axle XXX" or "First wide load right/left side near axle XXX" or "Shifted load right/left side near axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Inspect the indicated axle(s).<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) | "First hot journal right/left side axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Inspect the indicated axle(s).<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

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| | | | |
|---|---|---|---|
| 5(B) | “First hot journal right/left side axle XXX” | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Contact NOC detector desk to initiate review of bearing profiles that caused alarm. If at any point before or during the inspection the NOC detector desk determines the stop to be invalid and releases the train, the inspection may be concluded.<br>Otherwise:<br>4. Inspect the indicated axle(s).<br>5. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector alarm message may identify more than one defect. Unless released by the NOC detector desk, inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

| | | | |
|---|---|---|---|
| 5(A) or 5(B) | "Excessive Alarms" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. Stop immediately after the alarm message is transmitted, or after the entire train has passed the detector if no alarm message is transmitted.<br>3. Inspect the indicated axle(s).<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Inspect both sides of the remainder of the train from the last reported defect.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) or 5(B) | "Hot Journal-Train Too Slow" is Transmitted. | Stop and make a walking inspection of both sides of entire train. | Report "Hot Journal-Train Too Slow" to Train Dispatcher |

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**Table No. 3 - 8(C) Other Circumstances**

| Type Detector | Circumstance | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | Speed varies by more than 10 MPH from actual speed. | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train.<br>3. Report findings to train dispatcher. | None |
| 5(B) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, proceed. | Report no message or incomplete message to train dispatcher. |
| 5(A) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of entire train. | Report no message or incomplete message to train dispatcher. |
| 5(B) - without recall code | No message<br>or<br>Incomplete message is transmitted. | Proceed | Report no message or incomplete message to train dispatcher. |
| 5(B) - Exception Reporting | No Message | Proceed | Do Not Report "No Message" to Train Dispatcher |
| 5(B) - with recall code Exception Reporting | Incomplete Message is Transmitted | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of train. | Report incomplete message to train dispatcher. |
| 5(B) - without recall code Exception Reporting | Incomplete Message is Transmitted | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train. | Report incomplete message to train dispatcher. |
| Note: Detector message followed by the word "Out" indicates a complete message. Total axle count is not required for a complete message. If an alarm message is transmitted and it is not followed by the word "Out", the train will be governed by the Train Crew Action for that alarm message | | | |

**8(D). Train Inspection**

When alarm message requires inspection, inspect the side of the train in the message. The reference to defect locations will be from HEAD END of train, and references to LEFT or RIGHT side are to engineer's left or right side in the direction of travel.

Determine the location of the indicated axle by physically counting axles from the HEAD END of the train, including locomotive axles. DO NOT depend on wheel report information for correct axle count. When alarm message requires, inspect indicated axle(s). If inspection does not reveal a defect, inspect 12 axles forward and 12 axles to the rear of the indicated axle. When this is necessary, inspect all 12 axles in each direction regardless of whether a defect is found before reaching the twelfth axle.

**Dragging Equipment/Shifted Load Inspection**

When a dragging equipment or shifted load alarm message is received, make a walking (trackside) inspection of the train until the inspection is complete or until an obstruction (bridge without a walkway) prevents further inspection. When obstruction prevents completion of inspection, move train at no more than 5 MPH to complete the inspection per GCOR 6.29.2. The train may proceed only after walking inspection confirms there is no dragging equipment or shifted load(s), defective car(s) are repaired or permission is received from the train dispatcher or manager to move the defective equipment.

**Overheated Equipment Inspection**

When an overheated equipment alarm is received, follow this procedure to inspect equipment:

- Crew member positioned on the ground must count axles.
- Move train at no more than 10 MPH until the indicated axle is near crew member or until inspection is complete.

When a train is stopped by a trackside warning device for hot journal or hot wheel, crew is to immediately contact train dispatcher who will relay the occurrence along with train identification and location to the NOC Detector Desk. The NOC Detector Desk will then contact the train and assist the crew with the process of inspection and identification of the suspect car. Train may not depart inspection location until NOC Detector Desk releases train from inspection and permission to depart is received from train dispatcher. The train crew must report the following to the NOC Detector Desk:

1. The axles were physically counted
2. A heat-indicating crayon or infrared device was used at the indicated axle,
   and
3. If inspection does not reveal a defect, that 12 axles forward and to the rear of the indicated axle have been inspected.

If a heat-indicating crayon or infrared device is not available, set out the indicated car.

After released by the NOC Detector Desk, contact the train dispatcher for permission to depart inspection location and to report train delay/detector stop information (i.e. axle readout, inspection result, car initial and number, journal number and size, set out location, crayon used, etc.). To contact the NOC Detector Desk, when using the 3 digit radio call-in code, use the 2 digits indicated in the timetable followed by a 5. If using the 1 digit radio call-in code, use 5.

**Freight Trains**

If no defect is found, train may continue, but crew members must closely observe indicated equipment for the next 25 miles or until inspection by hot bearing detector.

When a train actuates a wayside hot bearing detector before crew change location, the relieving crew will be advised of the equipment that activated the detector so that they can inspect the car and follow the above procedure if the equipment actuates a subsequent detector enroute.

When a freight train, other than a Key Train, is stopped by a trackside warning device and the indicated axle is on a loaded, placarded, non-intermodal car containing hazardous material, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

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When a Key Train is stopped by a trackside warning device, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car (hazmat or not) must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car (hazmat or not) must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

**Passenger Trains**

If no defect is found after inspecting 12 axles forward and 12 axles to the rear of the indicated axle, inspect both sides of the entire train.

If no defect is found, train may continue, but crew must closely observe indicated equipment for the next 25 miles or until next inspection by hot bearing detector.

**8(E). Testing Bearing Temperature**

Use a heat-indicating crayon or handheld infrared device to test bearing temperature. Test bearing temperature by stroking the heat indicating crayon on the bearing cup. A liquid smear will remain on an overheated bearing. (Determine if the bearing is hot by using a Dual Temp. 163 degree - 200 degree Fahrenheit, Mark All Thermal Melt, Millennium ordering reference no. 458304011.)

When ambient temperature is 32 degrees Fahrenheit or above, use a 200-degree Fahrenheit heat-indicating crayon to test bearing temperature.

When ambient temperature is below 32 degrees Fahrenheit, use a 163-degree Fahrenheit heat-indicating crayon to test bearing temperature.

Set out equipment with overheated bearings.

If it is safe to move equipment, set out car with an overheated bearing at a location accessible to repair personnel.

**Operating Infrared Device**

To measure a temperature, point at object and pull the trigger. Unit must be held approximately 1 – 1 ½ feet away from the journal or wheel to be measured. In order to be accurate, the target area must be at least twice as large as the spot size. Target must be free of grease or dirt. Steam, dust, smoke etc. can prevent accurate measurement by obstructing the unit's optics. Use the laser only for aiming.

CAUTION: Laser should never be pointed directly at eye or indirectly off reflective surfaces.

Point Non-Contact Thermometer (Infrared Device) at the bearing cup identified during train inspection and pull the trigger. Use laser for aiming the device. Record temperature displayed on the LCD. If temperature exceeds 180 degrees above ambient (outside) temperature, journal or wheel is considered hot and must be set out for repair. Ambient temperature may be determined by targeting any portion of the railroad car (except the wheel or journal) that has been exposed to outside air temperature. Avoid targeting the shiny surface of the wheel tread when measuring wheel for excessive temperature. Inaccurate readings will result from measuring polished or shiny surfaces. To measure wheel temperature, target the outside area of the wheel.

**Note:** When outside ambient temperature is significantly lower or higher than temperature where device is stored i.e., personal luggage or pocket, thermal shock may occur to the unit when removed from stored area. This may affect the ability of the LCD to give readout. In addition, accuracy of readout can be affected. If outside air temperature is less than 32 degrees Fahrenheit, it is recommended the device be kept in pocket until ready to target the wheel or journal to be inspected.

**8(F). Consecutive Alarm Messages**

If the same equipment is indicated by two successive hot bearing alarm messages, set out the indicated equipment. When a train actuates a wayside hot bearing detector before a crew change location, the crew being relieved will advise the relieving crew of the equipment that activated the detector. If the same equipment is indicated by the next detector with a hot bearing alarm message after departing the crew change location, set out the indicated equipment.

**8(G). Alarms Indicated on Locomotive or Caboose**

When unable to locate a defect indicated on a locomotive or caboose, notify the following:

- Connecting crew members
- Mechanical personnel
- Supervisor

Do not set out a caboose with a generator belt attached to the indicated axle unless a hot bearing, hot wheel or dragging equipment is found.

**8(H). Special Conditions**

When a hot bearing is found within 25 miles of a hot bearing or hot wheel trackside warning device, a crew member must notify the train dispatcher. The train dispatcher must notify the signal maintainer and request the TWD equipment be inspected.

When blowing or swirling snow conditions may prevent hot bearing detectors from making a proper inspection, crew members must reduce train speed to no more than 30 MPH while train is passing the detector to minimize this condition.

**8(I). High Water Detectors**

High water detectors have been placed under certain bridges and in areas where high water might occur.

A. When train is notified of high water by rotating red lights, radio message, signal indication or at a radio readout and no response is received, crew must not proceed over bridge or track until trackside examination by crew member or Engineering employee has been made to determine the following:
   - The track has not lost its normal alignment,
   - The track or bridge does not have sagging surface,
   - The shoulder ballast or ballast between the ties is not missing,
   - Water is not running between the ties, and
   - Water is not over the rail.

If inspection is made by an Engineering employee, the employee must be at the location and complete the inspection immediately before the train traverses the location. Follow up inspections must be made before each subsequent train move until the hazard is known to no longer exist. If determination cannot be made, contact train dispatcher for instructions before proceeding.

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B. Trains moving against the current of traffic must approach all locations protected by high water detectors prepared to stop unless:
- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- The shoulder ballast or ballast between the ties is not missing,
- Water is not running between the ties, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding. Note: When moving against the current of traffic and the location is protected by rotating red light or radio response, be governed by Item A above.

**8(J). Slide Detectors**

Slide detectors have been placed in certain areas where earth/rock slides might occur.

When a rock slide is indicated by rotating red light or radio message, trains must proceed at Restricted Speed AND be prepared to stop short of any obstruction through the entire slide detector area.

When train is stopped or moving at Restricted Speed because of signal indication governing movement through a slide detector, train must ALSO be prepared to stop short of any obstruction through the slide detector area.

Train dispatcher must be promptly notified if slide conditions are observed.

At locations equipped with Radio Readout type detectors, if no response is received, trains must proceed at Restricted Speed until track at this location is known to be clear of any obstruction. Train dispatcher must be promptly notified if slide conditions are observed.

**8(K). Warm Journal Detectors**

Warm Journal Detectors identify potential failure conditions in advance of actual failures using information provided only to the NOC Detector Desk, where the information is evaluated and necessary crew action is determined. When crew action is necessary, the NOC Detector Desk will coordinate through the chief dispatcher to have the train dispatcher issue required train crew action via radio. Train crews are then to contact the NOC Detector Desk and be governed by any additional instructions.

When notified by the dispatcher or NOC Detector Desk to take action relative to a "warm" bearing/journal, the train (including Key Trains or any train with hazardous material shipments) may be moved without additional restrictions to a convenient location to inspect or set out as directed.

Directed train crew action may include:

1. Perform a Set and Release of the Air Brakes:

   Perform a set and release of the air brakes (minimum of 10 psi brake pipe reduction) in an attempt to release any sticking brakes at the first convenient location consistent with good train handling. A "running release" may be performed if engineer determines conditions allow per ABTH Rule 103.3C. When a running set and release is necessary the NOC Detector Desk may contact the train crew directly with instructions.

2. Stop and Inspect a Specified Car:

   Stop and inspect specified car and be governed by instructions provided in each case by the NOC Detector Desk.

3. Set Out a Specified Car:

   Set out specified car at location as directed.

Instructions for potential failure conditions identified by the NOC Detector Desk do not supersede instructions for overheated/hot journals or defective equipment identified by other Trackside Warning Devices or visual inspections.

**8(L). Track Integrity Warning System (TIWS)**

The following TIWS instructions are in effect, unless otherwise specified in subdivision specific Timetable Special Instructions:

The Track Integrity Warning System checks the rail for continuity and alerts the Train Dispatcher to possible track occupancies or defects (e.g. broken rail) in non-signaled territory.

Subdivisions where TIWS is in effect are divided into a series of "zones" displayed by the Train Dispatcher's control system and identified in the field by Mile Post signs, Siding Switch signs, or a combination of these signs. Mile post signs identifying boundaries of a "Zone" may be displayed in tenths of a mile. Example: MP 926.3.

Track authority limits may be designated by MP signs representing "Zone" limits.

Alerts will be generated to the train dispatcher when occupancy is detected within a zone(s) not corresponding in proper sequence with an authority issued on that segment of track. Such alerts are referred to as "Track Integrity Down" (TID) and will be communicated by the Train Dispatcher to trains authorized within the zone(s).

Verbal instructions for "TID" may be provided to trains closely approaching the TIWS zone when an alert is received.

A new authority including "TID" information will be issued to trains not closely approaching an alerting zone. "Track Integrity Down" will be abbreviated as "TID". Following are examples of a "TID" communicated by Track Authority:

"TID MP 1011.3 to MP 1015.8" or "TID WSS Baker"

Trains receiving notification of "TID" must move at Restricted Speed within the designated zone limits and/or over a designated switch.

**8(M). Wheel Impact Load Detector (WILD)**

A Wheel Impact Load Detector (WILD) monitors passing trains for wheel defects which are categorized as Level 1 or Level 2. When a train passes over the detector, WILD installations equipped with field radio broadcast capability will transmit a radio message only when a defect has been identified, followed by the word "out". WILD installations with radio broadcast capability will be identified in the timetable.

**Level 1**

When a Level 1 defect is identified by a WILD with radio broadcast capability, a radio message will be transmitted indicating "you have (number of defects) defects", "Train (lead locomotive number)". After a brief pause, the detector will then broadcast details regarding right or left side, axle count from head end of the train and car number for the defect identified. Required train crew actions for Level 1 defects:

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- Record the information transmitted by the detector.
- Stop train and notify the train dispatcher of the delay due to required WILD Level 1 inspection.
- Inspect the axles identified for defects.
- If no defect is found, inspect 12 axles forward and 12 axles backward from the axles identified.
- Notify the dispatcher of the conditions found.
- Train may not depart from the inspection location until released by the detector desk and permission to depart is received from the train dispatcher.

If a defect message is incomplete or cannot be understood, enter the recall code. If message recall is unsuccessful, notify the train dispatcher and proceed with no restriction.

**Level 2**
Level 2 condition information is monitored by the detector desk and is used for predictive maintenance purposes only. The WILD will not transmit Level 2 detail by radio.

**9. Amtrak Instructions**

BNSF dispatchers must have General Track Bulletins (GTB) issued at least one hour before trains departure. If the Amtrak train crew does not have the GTBs 45 minutes before trains departure they must contact the dispatcher immediately. If unable to contact the dispatcher for GTBs 35 minutes before train departure, train crew must contact the BNSF Passenger Operations Team at 1-800-871-0902.

Dispatcher must be notified immediately when train does not maintain maximum authorized track speed.

Dispatcher must be notified immediately when crews experience rough track conditions stating limits and severity. This same information must be documented on the conductor delay report

No trash may be discarded on BNSF property.

**Station and Reporting Times**
Station work must be done in an expedient manner to avoid exceeding station dwell times. If station work is anticipated to exceed scheduled dwell time by more than 5 minutes, sufficient advance notice must be given to the dispatcher to eliminate or minimize train delays.

**Amtrak Trains Reporting Clear/Releasing Track Warrants**
Engineer and conductor are jointly responsible, through job safety briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant. When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Communication will use the following format:
  Crew member will state: "(Name), locomotive initial, number, (direction), reports clear of (mile post/location) (Provide switch briefing when required). Over."

  Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct. Over"?

  Crew member will state: "Job safety briefing between conductor (name) and engineer (name) confirm, that is correct. Over".

**Equipment**
Unless otherwise provided, equipment that cannot be safely operated at maximum speed must be set out at first available location unless train can arrive at final destination in less time than would be required to make the set out.

- Maximum speed for freight locomotives in Amtrak service is 70 MPH.
- Double stretch is required after pick up or set out of cars or locomotives.
- Required hand tools and supplies must be available on locomotive.
- Required switch keys must be in possession of Engineer and Conductor.
- Amtrak may not exchange or discharge passengers between trains except at stations.
- Amtrak may not exchange supplies between trains except at stations unless authorized by train dispatcher.
- Amtrak train garbage/refuse to be off loaded must be loaded into approved containers and only at stations that have assigned Amtrak employees or caretakers.
- Amtrak toilets must be discharged into appropriate containers. Dumping of toilets from Amtrak trains on BNSF right of way is prohibited.

**Head End Attendance**
The head end of all occupied passenger trains must not be left unattended for any reason while occupying Main Track or siding. At crew change locations the engineer's job safety briefing will take place in the locomotive cab or controlling compartment of cab control car. If the outbound crew is not on spot at a crew change location on arrival, the inbound engineer will remain on the head end until the outbound engineer arrives.

**Head End Power (HEP) Requirements**

- Departure from the originating station with the HEP cables short looped is prohibited.
- In the event of HEP failure, crew members must determine if the train may be handled safely and must make every effort to advance the train to the next siding or scheduled stop before repairs are made.
- All HEP cables must be secured with approved tie-downs.
- Air hoses and HEP cables must be secured no less than 4 inches above the top of the rail.

**BNSF Crews Operating Amtrak Trains**
When a BNSF crew operates an Amtrak train, a freight locomotive must be used. Amtrak personnel must handle all 480-volt AC power and set up Amtrak locomotives in the trail position. BNSF crews are prohibited from handling, adjusting or performing work between or under cars when Head End Power (HEP) 480 volt AC is energized. A freight locomotive will not be necessary when BNSF engineer is accompanied by an Amtrak qualified engineer or qualified Amtrak supervisor.

**BNSF Mechanical Assistance**
When mechanical problems develop the train dispatcher must be notified immediately as described in System Special Instructions item #45 and BNSF NOC Mechanical Desk notified if assistance is required. The delay for mechanical problems must be documented properly on the delay report.

**Conductor Delay Reporting**
The Amtrak conductor delay reporting method has been replaced with an electronic method. The electronic delay report (EDR) is essential to both Amtrak and BNSF. If the train operates on a route requiring EDR, the delay information must be reported no more than two hours after the train arrives its destination or at a crew change location.

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The reporting must be professional, brief, specific, and worded clearly and concisely. Each individual reason for delay must be separated from other delays. The reporting must include, in order of occurrence, the following:

- Any delay due to the inability to maintain maximum authorized passenger train speed.
- Reasons for delay over dwell times identifying specific cause of delay (passengers, baggage, late bus connections, mechanical issues, etc.).
- Delays associated with field equipment detectors. These delays require that specific information be given, even if no defect is found. Information as to the location of the defect, Car/Locomotive initial and number, axle and journal if applicable, and reason for inspection and defect, if any found.
- Amtrak instructions regarding authorization to hold or delay train, including reason.
- Delays caused by operating with one engineer.
- Delays caused by late General Track Bulletins.
- If the conductor manually changes electronic time, an explanation of the reason for change must be included within the EDR.

Reporting is required on all trips, including special trains, deadhead moves and trains terminated short of destination.

**Signal Awareness Forms**

Passenger train conductors and crew members are exempt from special instructions Item 43 unless they are in the controlling unit or the cab room of the controlling cab car and there is more than one crew member in the controlling unit or cab room of the controlling cab.

**10. Storage of Cars Within Restricted Limits or Yard Limits In Non-Signaled Territory**

Within restricted limits or yard limits in non-signaled territory, the Main Track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on Main Track in such territory, they must be protected by track warrant or track bulletin. This does not modify requirements of GCOR 6.13 or 6.14.

**11. Shunting the Track**

**Commodities Insulating Track**

Employees should be alert for insulating commodities such as clay, chips, oil, etc. on top of rails, or leaves covering the rails. This condition could possibly insulate the track and cause loss of train shunt. Such conditions should be promptly reported to the train dispatcher. When conditions are reported, trains must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**Movements Consisting of Less Than 12 Axles**

In CTC, manual interlocking, or ABS territory, a crew member must inform the train dispatcher/control operator, of train/engine movement consisting of less than 12 axles so that protection against loss of shunt can be provided. Train, engine and other such movements consisting of less than 12 axles must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**12. Switch Control/Monitoring Systems**

**12(A). Turnouts Equipped with Two Switch Machines (Movable Point Frogs/Swing Nose Frogs/Derails)**

Locations where turnouts are equipped with two switch machines will be identified under individual subdivision special instructions. When dual control switches equipped with two switch machines are operated by hand, the switch machine which operates the switch points and the switch machine which operates the movable point frog, swing nose frog, or derail must both be placed in hand operation.

GCOR/MWOR 9.13.1 applies at all locations where turnouts are equipped with two switch machines (movable point frogs/swing nose frogs/derails).

**12(B). Remote Control Power Switch (RCPS)**

Remote Control Power Switch (RCPS) allows the train dispatcher to request that the switch be lined and monitor switch position in non-signaled territory. The location of RCPS will be designated in the timetable. RCPS limits are designated by signs and the limits must not be occupied unless authorized. Track authority will authorize use of RCPS limits at each end of authority in the following manner:

"Switch - Yes" indicates that the authority includes the RCPS limits designated by signs in the field.
"Switch - No" indicates that the authority does not include RCPS limits and movement must stop short of sign designating RCPS limits.

If the train dispatcher cannot line the remote control power switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the train dispatcher must instruct the employee to operate the switch by hand. Movement may then proceed to that switch. Before passing over the switch, movement must stop and the employee must operate the switch by hand.

To operate a remote control power switch by hand:

- Obtain permission from the train dispatcher.
- Unlock the switch lock.
- Place the selector lever in the HAND position.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until at least one unit or car has passed over the switch.

The following information and instructions apply when the RCPS system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status to indeterminate/out of correspondence.

When an alert is received, the train dispatcher must promptly determine the location of the train with authority over the alerting switch and do the following:

- If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching (less than 7 miles) the alerting switch, the train dispatcher must instruct the crew to stop their train, consistent with good train handling, if possible, before traversing switch.
- If the train is not closely approaching the alerting switch, but it is more than seven miles from alerting switch, the train dispatcher is required to issue a new authority to the affected train that voids the authority over the alerting switch and ends at the alerting switch.

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**RCPS Position Indicator**

| | |
|---|---|
| Green | Switch lined and locked for Main Track movement |
| Yellow | Switch lined and locked for movement to or from Main Track |
| Dark (not illuminated) | Switch not locked, or selector lever in "hand" position. Contact train dispatcher and obtain permission to hand operate the dual control switch. |

RCPS position indicator lights do not authorize movements to occupy the limits between the RCPS signs governing the switch.

**12(C). Switch Point Monitoring System (SPMS)**

Switch Point Monitoring System (SPMS) is a program that will alert the dispatcher that a Main Track switch may not be properly lined for an approaching train in non-signaled territory. SPMS locations will be designated in the timetable.

The following information and instructions apply when the system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status from the normal position. Alerts will occur if a switch is reversed or its position becomes unknown (indeterminate).

Exception: An alert will not occur for trains operating with a proceed track authority (box 2) for switches located in the "from" and "to" locations of their authority.

When an alert is received, the train dispatcher must do the following:

- Promptly determine the location of the train with authority over the alerting switch. If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching the alerting switch, the train dispatcher may notify the crew verbally using the appropriate verbiage in the dialog box presented.
- If the train is not closely approaching the alerting switch, the train dispatcher is required to issue a new track authority to the affected train that restricts authority to the alerting switch.

  Note: Work between (box 4) authority for trains must end at any indeterminate switch. Authority may be issued beyond the indeterminate switch only after employee has verified that the switch is in the normal position by performing an on-ground inspection.

The dispatcher is prohibited from issuing two work between (box 4) track authorities to the same train that make the limits of authority end-to-end.

For example, do not issue track authority #1 with work between (box 4) from Anna to Bess and track authority #2 with work between (box 4) from Bess to Cloy.

Information received from the Switch Point Monitoring System must not be used to change the position of a Main Track switch that is protected by a track authority under the Protect Open Switch rules (GCOR 8.3, MWOR 8.3, and TDOCOM 42.19).

When a train crew is notified to be prepared to stop at an alerting switch, (either verbally or with a track authority), the train must not proceed over the switch until a crew member inspects the switch from the ground. The position of the switch must be reported to the train dispatcher as soon as possible after the inspection.

Maintenance of Way (MW) employees must have permission before operating an equipped Main Track switch. When Form B authority is in effect, the foreman or employee(s) working under the Form B must notify the dispatcher when opening any equipped Main Track switch(es).

When a MW employee receives a track authority with "Be prepared to stop at (location) until known to be in the normal position, the dispatcher must not indicate the switch to be "normal" unless the reporting employee has traversed the switch in Main Track to Main Track movement with on-track equipment and is physically at the switch.

The dispatcher must not "normal" an alerting switch until it has been inspected by a field employee.

**12(D). Independently Controlled Switches (ICS)**

Independently Controlled Switches are dual control switches of a crossover which, under certain conditions prescribed by the rules, may be operated independently. At locations identified in the timetable as having independently controlled switches, Maintenance of Way employees may request control operator permission to operate one end of a crossover for maintenance or testing purposes only.

**12(E). Protect Open Switch (POS)**

In non-signaled territory, track warrant authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

In ABS territory, track warrant work between authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

(Note: A train stopped short of the switch for topographical reasons, i.e., road crossings, grade considerations, etc., may be considered as stopped at the switch for application of this process).

**13. In Effect on BNSF Railway**

- General Code of Operating Rules, Eighth Edition, in effect April 1, 2020
- Maintenance of Way Operating Rules, in effect January 1, 2018.
- Air Brake and Train Handling Rules, in effect February 1, 2018.
- Train Dispatcher's and Control Operator's Manual, in effect November 1, 2020.
- TY&E Safety Rules, in effect August 4, 2021.
- Maintenance of Way Safety Rules, in effect August 4, 2021.
- Employee Safety Rules, in effect August 4, 2021.
- Mechanical Safety Rules, in effect August 4, 2021.
- United States Hazardous Material Instructions for Rail in effect June 1, 2021.
- 2020 Emergency Response Guidebook.
- BNSF Chicago Passenger Operations Manual No. 5, in effect May 14, 2021.
- Canadian Rail Operating Rules, in effect October 14, 2015. (For use in Canada only.)
- Remote Control Operating Instructions, in effect December 14, 2016.
- PTC Interoperability Instructions, in effect September 1, 2019 (For use by BNSF TYE crews operating on PTC interoperable routes.)
- BNSF Seattle Passenger Operations Manual No. 2, in effect April 1, 2019.

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**In Effect While Operating on Foreign Railroads:**
The following System Special Instruction items must be complied with by BNSF crews operating over a foreign railroad:

- Item 6. Work Order: Instructions for Reporting Work
- Item 27. Cars Set Out Bad Order
- Item 28. Grade Crossing Accidents
- Item 35. Switching and Handling Business Cars
- Item 43. Signal Awareness/Position of Switch Form
- Item 45. Network Operations Center Notification Requirements
- Item 49. Responsibilities and Certification
- Item 50. Rail Security Sensitive Material (RSSM) Instructions Chain of Custody Documentation for Rail Sensitive Material

**Detour Train Documents**

- When a foreign railroad detours trains on BNSF, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- When BNSF detours trains on a foreign railroad, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- The train list and hazardous material information must remain on the lead locomotive at crew change points.
- Detoured train documentation is not interchanged to the handling road's computer system.

**14. General Code of Operating Rules, BNSF Amendments and Supplements**

**GCOR 1.10**—is changed to read:

**GCOR 1.10 Games, Reading, or Other Media**

Employees on duty must not:

- Play games
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices)
  or
- Read magazines, newspapers, or other literature not related to their duties when:
  - On a moving train or locomotive unless deadheading in the cab of a non-controlling locomotive
  - Any crew member is performing safety related activities
  or
  - It would delay or interfere with required duties.

When use is not permitted, magazines, newspapers or other literature not related to duties must be stowed out of sight.

**GCOR 1.17 Hours of Service, Supplemental Instruction**

When reporting hours of service, time spent waiting for deadhead transportation must not be counted when determining time on-duty for hours of service purposes when relieved of all duties.

**GCOR 1.37 Open Top Loads**—is changed to read:

Flat cars, open top cars, and open TOFC/COFCs with loads which protrude beyond the car ends or if shifted, would protrude beyond the car ends must not be placed in trains next to the following if train length and makeup permit:

- Occupied outfit car
- Passenger car
- Engine
- Caboose
- Shipment of automotive vehicles or machinery that is not fully enclosed

This restriction does not apply to cars equipped with chains or cables securing the load to the car.

**GCOR 1.43 Stopped in Tunnels**—Under A. Engine or Train Stopped in Tunnel:

That part reading:

4. Apply hand brakes to prevent movement in case the air brakes leak off.

Is changed to read:

4. Secure required number of cars to prevent movement in case the air brakes leak off.

**GCOR 1.46 Duties of Yardmasters**—the following is added:

At the end of each shift, the yardmaster must make a transfer, filling in all the required information, including:

- All grade crossing warning devices out of service
- Any undelivered Track Bulletin Restrictions
- Any tracks, switches, or other infrastructure out of service
- Any other conditions or issues which may affect the safe and efficient management of the yard.

If the office has more than one shift, the yardmaster being relieved will remain until the relieving yardmaster understands, accepts, and acknowledges the transfer.

The transfer must be documented in Yardmaster Transfer in YDS. If TSS is not available, the transfer must be documented in writing and maintained for 30 days.

**GCOR 1.47 Duties of Crew Members**—Item C, All Crew Members' Responsibilities, the following is added to Item 2:

Crew members must not use binoculars or similar devices to determine the position, aspect, or indication displayed by a fixed signal.

**GCOR 1.48 Time, Supplemental Information**

Dial 8-998-8463, 8-WWV-TIME, or 8-435-6000 to obtain coordinated universal time signal.

**GCOR 2.14.1 Verbally Transmitting and Repeating Mandatory Directives**

**Supplemental Instruction**

Apply the following when verbally transmitting and repeating a mandatory directive identified by numbers separated with a hyphen:

- State the first number, then state or spell each digit separately for that number.
- State the hyphen as "dash".
- State the second number, then state or spell each digit separately for that number.

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5."

Employees repeating the initial transmission of the mandatory directive must repeat the number in this same format.

**Supplemental Information**

When authorities are repeated precisely as they are transmitted, the Control Operator / Train Dispatcher is able to follow the words when checking the repeat for accuracy. When authorities are not repeated properly, it is more difficult for the Control Operator / Train Dispatcher to follow the repeat process.

Employees are expected to repeat authority precisely as it is recorded on the authority form. All words which are on the form or shown in the examples must be repeated in the proper order and without adding or deleting words.

Employees will be given three chances to repeat an authority properly. If unable to repeat properly after three attempts, the Control Operator / Train Dispatcher will stop the authority and the employee will not be given additional authority until a supervisor has been contacted.

**GCOR 2.14.2**—The following rule is added:

**GCOR 2.14.2 Before Reporting Clear of Authority Limits**

Before a field employee reports clear or releases a portion of authority limits, and the Train Dispatcher/Control Operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the Train Dispatcher/Control Operator.
- The Train Dispatcher/Control Operator will have the required form or computer screen displayed for data entry and confirmation.
- The Train Dispatcher/Control Operator and employee will carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct.

**GCOR 2.21**—is changed to read:

**GCOR 2.21 Electronic Devices**

This rule outlines the requirements for use of electronic devices. As used in this rule, the following definitions apply:

**Electronic Device**—means an electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety-related task.

**Railroad Operating Employee**—means an individual who is:

- Engaged in or connected with the movement of a train including a hostler,
- A train employee providing commuter or intercity rail passenger transportation,
  or
- Subject to hours of service governing train service employees.

The use of any electronic device is prohibited if that use would interfere with an employee's performance of safety-related duties.

**A. Personal or Railroad-Supplied Electronic Devices**

Personal or railroad-supplied electronic devices may be used as necessary:

- To respond to an emergency situation involving the operation of the railroad
- To respond to an emergency encountered while on-duty
- As a communication device in the event of radio malfunction
- To refer to a railroad rule, special instruction, timetable or other directive using the digital storage and display function while inside the controlling cab of a locomotive, train or on-track equipment after there has been a job safety briefing and all crew members agree that it is safe to do so.

Other than railroad operating employees may use electronic devices in the body of a business car or passenger train when it will not interfere with an employee's performance of safety-related duties.

Except as otherwise authorized, the use of any audio or video recording device to record communications by or between employees is strictly prohibited without the prior knowledge and express consent of all parties to the communication.

**B. Personal Electronic Devices**

Except when deadheading in other than a controlling locomotive, railroad operating employees on-duty (including supervisors) must have each electronic device turned off and stowed out of sight with any earpiece removed from the ear when:

- On moving rolling equipment or on track equipment unless device is being used to reference a railroad rule, special instruction, timetable or other directive,
- Any member of the crew is on the ground performing safety-related duties,
  or
- Any employee is assisting in preparation of the train, engine(s) or on-track equipment.

A railroad operating employee may use an electronic device when:

- Rolling and on track equipment is stopped,
- A job safety briefing is conducted with all crew members to confirm that it will not interfere with any safety-related or required duty,
- No member of crew will foul any track.

When device is not in use it must be off and stowed out of sight.

A personal stand-alone camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- A job safety briefing is conducted among all crew members and any other individuals in the controlling cab of moving equipment,
- It is turned off immediately after the photograph has been made;
- It is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

**C. Railroad-Supplied Electronic Devices**

After a job safety briefing including all members of the crew determines railroad-supplied devices can be used safely, railroad operating employees may use such devices to send or receive work related information with:

- Railroad supervisors
- Railroad customers
- Railroad dispatchers
- Railroad customer service employees
  or
- Other railroad employees as necessary in the performance of their duties.

Railroad operating employees must not use a railroad-supplied electronic device for purposes other than which it was intended or while:

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- Operating the controls of a moving locomotive unless device is being used to reference a railroad rule, special instruction, timetable or other directive.
- On the ground within 4 feet of any track.
- On the ground and engaged in an active switching operation.
- Riding rolling equipment during a switching operation.
- At the controls of the locomotive and any other employee is assisting in the preparation of the train, engine(s), or on-track equipment, including testing of railroad equipment or brakes.
- Inside the controlling cab of a locomotive, train or on-track equipment, unless there has been a job safety briefing and all crew members agree that it is safe to do so.
- Verbally obtaining or releasing mandatory directives when railroad radio communication is available.

A railroad-supplied electronic device may be used to take a photograph pertaining to authorized business purposes that include a potential safety hazard, violation of a rail safety law, regulation, order or standard; or conditions that prevent a train crew from accessing and performing work at a customer facility provided that:

- Train is stopped.
- A Job Safety Briefing is conducted including all members to confirm that it is safe to do so.
- If the crew member taking the photograph is on the ground they cannot be within 4 feet of any track.

**GCOR 4.3 Timetable Characters, Supplemental Instruction**

A.....Automatic Interlocking
B.....General orders, notices, and circulars
C.....Radio communication
g .....Gate, normal position against conflicting route
G.....Gate, normal position against this subdivision
J.....Junction
M .....Manual interlocking
P.....Telephone
R.....Restricted Limits
S.....Railroad crossing protected by permanent Stop sign
T .....Turning facility
U.....Railroad crossing not protected by signals or gates
X.....Crossover
X(2).....Multiple crossovers
Y.....Yard Limits

**GCOR 5.3.3 Signal Disappearance**—is changed to read:

If a person disappears who is giving the signal to back or shove a train, engine, or car, or the light being used disappears, employees must stop movement.

**GCOR 5.4.2 Display of Yellow Flag**—"Less than Two Miles Ahead of Restricted Area" under "A. Restriction is in Effect" is changed to read:

**Less than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, junction, or another area or if restriction is on a siding, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**GCOR 5.4.6 Display of Flags Within Current of Traffic**—this rule is canceled.

**GCOR 5.4.8 Flag Location**—the first paragraph is changed to read:

Flags will be displayed on all Main Tracks and sidings leading to the track affected.

**GCOR 5.5 Permanent Speed Signs, Supplemental Instruction**

Reduced speed limits may be designated by Advance Warning sign (diagonally upward), Reduce Speed sign (rectangle) and Resume Speed sign (vertical).

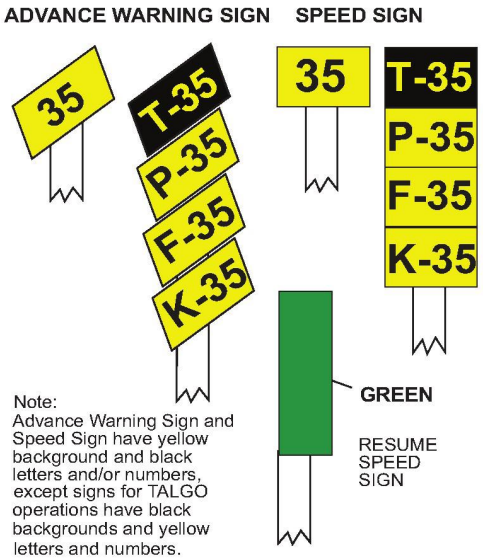
The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction. Signs reading "K-END" indicate the end of Key Train municipal area limits. Resume speed signs are not displayed at the end of Key Train municipal area limits.

Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision.

Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.

These signs, as illustrated, apply to train and engine movements as follows:




Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures preceded by the letter K apply to Key Trains.

Figures not preceded by a letter apply to all trains.

**GCOR 5.8.1 Ringing Engine Bell**—the following is added as a fourth bullet:

- When whistle signal (7) is required.

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**GCOR 5.8.2 Sounding Whistle**—the Indication for Sound (8) is changed to read:

| Sound | | Indication |
|---|---|---|
| (8) | — o | Regardless of any whistle prohibitions:<br>Approaching men or equipment or other individuals on or near the track.<br>After sounding initial warning for men or equipment or other individuals, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment or other individuals.<br>Whistle warning is not required:<br>• When there is an adjacent track and men or equipment or other individuals are beyond the farthest rail of the adjacent track.<br>• For members of the same crew associated with movement of their engine unless necessary to warn or alert a crew member<br>Do not sound whistle in designated mechanical servicing and repair facilities, unless for an emergency or when approaching roadway workers. |

**GCOR 5.8.4 Whistle Quiet Zone**—the following is added:

An employee may sound the train horn to provide warning to crews on other trains in an emergency situation, vehicle operators, pedestrians, trespassers or animals if, in the employee's sole judgment, such action is appropriate to prevent imminent injury, death, or property damage. Train crews are not restricted from sounding the horn when:

- There is an emergency situation.
- A wayside horn system (WHS) is malfunctioning.
- Active grade crossing warning devices malfunction.
- Grade crossing warning systems are out of service.
- Supplemental or alternative safety measures are not compliant.
- Needed for purposes other than highway-rail crossing safety, for example, to announce the approach of a train to roadway workers.

All other whistle and bell requirements remain in effect.

**GCOR 5.9.1 Dimming Headlight**—is changed as follows:

1. is changed to read:
   1. At stations and yards where switching is being done. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).
3. is changed to read:
   3. When stopped on the main track waiting for an approaching train. However, when stopped in block system limits, turn the headlight off at the radio request of the crew of an approaching train until the head end of the train passes. After head end of approaching train passes, turn headlight on bright while the train is passing.
4. is changed to read:
   4. When approaching and passing the head end of a train at night. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).

**GCOR 5.11 Engine Identifying Number**—the following exception is added:

Exception:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by train symbol.

**GCOR 5.11 Engine Identifying Number, Supplemental Instruction**

Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines:

SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines:

CSXT, CSX and CSX Transportation.

Where PTC is in effect, passenger trains operated from a cab control car on the leading end of the movement will be identified by the cab control car initials and number, adding the direction when required.

Metrolink engines or cab control cars with no initials stenciled on the side will be identified as SCAX units.

**GCOR 5.13 Blue Signal Protection of Workmen**

**Item B. How to Provide Protection**—is changed as follows:

On a Main Track is changed to read:

**On a Main Track.** A blue signal must be displayed at each end of the rolling equipment and, if the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Section titled **On Other than a Main Track** is changed as follows:

The following is added after item 1:

Use the following sequence when applying blue signal protection:

a. Line and lock the switch
b. Display blue signal at or near the switch and;
c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at or near the switch
c. Remove the lock from the switch and replace the hook or hasp, if equipped.

Item 2 is changed to read:

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
   a. Positioned at least 150 feet from the rolling equipment to be protected.
   or
   b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.

   Use the following sequence when applying blue signal protection:
   a. Lock the derail in the derailing position
   b. Display blue signal at the derail and;
   c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

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Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at the derail
c. Remove the effective locking device from the derail and ensure derail is in the proper position.

The following is added to the end of item 3:

After the switch operator informs the employee in charge of workmen that switches have been lined against movement onto track and devices controlling the switch have been secured, display required blue signals on controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signals from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Employee in charge to notify the switch operator when it is safe to remove switch-locking devices.

**Item C. Blue Signal Readily Visible to Engineer**—Item 3 is changed to read:

3. The engine must not be moved. The controls must not be changed unless directed by individuals who placed the blue signal protection.

**GCOR 6.3 Main Track Authorization**—the paragraph titled Joint Authority is deleted, and the following is added:

**Overlapping Limits**
When a train receives track and time, track warrant or track permit authority joint with an employee the train must not occupy the overlapping limits until permission is received to enter the overlapping limits from the employees listed on the authority.

**GCOR 6.5 Shoving Movements**—is changed to read:

Shoving cars or engines ahead of an engine must be performed by an employee visually observing the intended route while communicating instructions with the employee controlling the engine to ensure safe operation.

A GCOR qualified employee must protect the shove movement by:

- Visually observing the leading end of the movement to determine that switches and derails are properly lined, and the route is clear for the intended movement.
- Communicating instructions including a distance that specifies where the movement must be prepared to stop. (e.g., stop for misaligned switch, controlling speed for conditions, etc.)

Employees are encouraged to communicate additional information related to the shoving movement (e.g., close clearance conditions, stop signals, authority limits, etc.)

When communicating distances:

- Use 50 feet as a standard for one car length
- Provide instructions that allow for control of the movement (e.g., controlling speed for conditions, etc.)
- Use a number of car lengths that is no greater than the portion of track that has been determined to be clear, and represents where movement must stop for improperly lined switches/derails, on-track equipment, etc.

When communicating with a radio:

- The employee observing the leading end of the movement must inform the employee at the controls of the engine who is protecting the movement and how the protection will be provided (e.g., Conductor Smith on the ground, riding equipment, riding in vehicle, camera, etc.), and specify a distance.
- Direction will be described in relation to the front of the controlling locomotive (F stencil). Use the following terms:
  - "Ahead" to move forward
  - "Backup" to move backward
  - "Stop" to stop the movement

  Do not use terms such as "Good For", "Shove", Bring 'em this way", "That'll do", etc., in place of "Ahead", "Backup" or "Stop".

The following are required of the employee controlling the engine:

- Before beginning a shove movement, must know who is protecting the movement and how protection will be provided
- Before beginning a shove movement, must repeat by radio the instructions received from the employee providing protection.
- When moving, must verbally acknowledge radio instructions by repeating the distance communicated when more than four cars.
- Movement must be stopped within half of the distance specified unless additional instructions are received.

Employees involved in the shove movement must not engage in any activity unrelated to the shove. (e.g., unrelated communication, operating a switch not part of the intended route of the shove, etc.).

An employee is not required to be in position to observe the leading end of the movement when:

- Relieved by local instructions for tracks equipped with shove lights/ cameras.
- Relieved by special instructions specific to tracks involved.
- During GCOR 6.6 Back Up Movements.
- During pullout moves within an activated Remote Control Zone (RCZ).
  or
- Moving cars only the distance necessary (not exceeding 5 car lengths) to operate an uncoupling lever for the purpose of kicking cars. It must first be verified that the track is clear and switches and derails are lined for the movement.

When cars or engines are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.

When engaged in snow plow operations:

- One common authority may be used by both Maintenance of Way employees and the train crew when all employees are on the equipment.
- Maximum timetable speed applies unless a higher speed is authorized by the employee in charge.
- Employees are relieved from providing visual protection for snow plow being shoved.

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**GCOR 6.5.1 Remote Control Movements**—is changed to read:

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading engine in the direction of movement. The remote control operator protecting the shove movement must be the controlling operator and in position to visually observe the direction the equipment moves before initiating the movement.

Exception: After conducting a job briefing with the employee who will be protecting the shove, the controlling operator is not required to transfer control when:

- Stretching a track to ensure couplings are made.
- Separating equipment to make coupler adjustments.
- Shove is protected by a non-equipped individual, such as a utility person

When requesting pin slack, the employee uncoupling the equipment is not required to be the controlling operator

**Pullback/Stop Protection (PSP)**
When Remote Control Zone is equipped with pull back/ stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden.

**Relief of Providing Protection**
The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when a qualified employee who is a part of the RCO crew has performed the following:

1. Verify switches/derails are known to be properly lined.
2. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.
3. Once steps 1 and 2 are completed and all crew members have been briefed, the zone may be activated.

Note: These steps must be repeated each time the remote control zone is activated.

**GCOR 6.6 Back Up Movements**—is changed to read:

After obtaining permission from the train dispatcher, a train may back up on any Main Track or on any track where CTC is in effect under the following conditions:

1. The train dispatcher must verify the following within the same or overlapping limits:
   a. Another authority is not in effect unless conflicting movements are protected.
   b. A track bulletin Form B is not in effect.
   c. A Main Track is not removed from service by a track bulletin.
   d. Permission to leave a switch in the reverse position has not been granted.
2. The crew ensures movement will not:
   a. Exceed the limit of the train's authority.
   b. Exceed the train's length.
   c. Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
   d. Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before requesting or making a back up move, a job safety briefing between all members of the crew must be conducted that confirms:

- Train is intact, verified either visually or by determining that brake pipe continuity exists using end of train device or distributed power telemetry.
- Distance to be shoved. (Note: Train must not move outside of authority limits.)
- Distance from the end of the train to the end of authority limits is sufficient to accomplish the planned back up movement (E.g. 30 cars from the end of the rear car to next controlled signal or 30 cars from the end of the rear car to MP 30, where track warrant authority ends, etc.).
- Location of nearest affected road crossing in direction of movement.
- Movement will not be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before permission is granted, a job safety briefing between a crew member and the train dispatcher or control operator must determine what track authority is needed to accomplish the planned movement. If additional track authority is necessary to make the 6.6 movement, a crew member must request additional authority.

When movement is made under these conditions, Restricted Speed does not apply.

**GCOR 6.7 Remote Control Zone, A. Entering Remote Control Zone**—is changed as follows:

The 2nd paragraph is changed to read:

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated.

The 3rd paragraph is deleted in its entirety.

**GCOR 6.11 Mandatory Directive**—that part reading:

Indicate "VOID" on mandatory directive form when:

Is changed to read:

Where paper copies are used, indicate "VOID" on mandatory directive form when:

**GCOR 6.20 Equipment Left on Main Track**—A. Portion of Train Left on Main Track

That part reading:

- Set a sufficient number of hand brakes to keep the detached portion from moving.

Is changed to read:

- Secure a sufficient number of cars to keep the detached portion from moving.

**GCOR 6.21.2 Water Above Rail**—is changed as follows:

The 2nd paragraph is changed to read:

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, the NOC Mechanical Help Desk must authorize the movement.

**GCOR 6.21.3 Track Obstruction / Unusual Conditions**—is changed to read:

When a train is advised in the words, "Between (location) and (location) be governed by Rule 6.21.3", within the specified limits trains must:

- Not exceed 20 MPH HER,
  and
- Be prepared to stop for slides, rocks, washouts, debris or obstructions on the track.

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Train crews are reminded to regulate speed where visibility is limited (ex. curvature of track, lighting, weather, etc.) and must report to the train dispatcher conditions encountered, or if none are encountered, within the limits.

**GCOR 6.21.4**—The following rule is added:

**GCOR 6.21.4 Activation of Shifted Load or Dragging Equipment Detector**

When a train or engine actuates a shifted load or dragging equipment detector, and an adjacent Main Track or controlled siding may be obstructed, immediately:

- Warn other trains by radio, stating the exact location and status of the train and repeat as necessary.
- Place lighted fusees on adjacent Main Tracks and controlled sidings.
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

Warning to other movements is no longer necessary when:

- It is known adjacent Main Tracks and controlled sidings are not obstructed.
  or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent tracks.

**Train on Adjacent Track**
A train on an adjacent track that receives radio notification must pass the location specified at Restricted Speed and be prepared to stop for obstructions on the track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

**GCOR 6.22 Maintaining Control of Train or Engine**—A new second paragraph is added:

When following a train or engine on a Main Track or controlled siding, crew members must ensure they stop at least 400 feet behind the train or engine, if length of train permits.

**GCOR 6.23 Emergency Stop, Severe Slack Action, or Actuation of Shifted Load or Dragging Equipment Detector**—the part titled "**Inspection of Cars and Units**" is changed to read:

Visual inspection must ensure no derailment or damage has occurred to cars, units, equipment or track to the end of the train. If physical characteristics such as a bridge with no walkway prevent complete inspection, the train may be moved the distance necessary not exceeding 5 MPH to complete the inspection. Stop movement immediately if excessive power is required to start or keep the train moving and discontinue further inspection until a safe alternative to complete inspection is identified by either a job safety briefing or coordination through the train dispatcher.

Exception—The following trains (excluding key trains) are relieved of visual inspection required by emergency brake application if no severe slack action occurred while stopping and brake pipe pressure is restored as indicated by the caboose gauge, end-of train telemetry device (ETD) or distributed power telemetry:

- Solid loaded bulk commodity train,
- Train consisting entirely of doublestack and/or articulated spine car equipment,
- Any train where emergency application occurs above 20 MPH, or
- Any train that is 5000 tons or less.

Train types in the exception are relieved of further visual inspection after a defect is corrected, such as recoupling an air hose, and brake pipe pressure is restored as indicated by the caboose gauge, end-of-train telemetry device (ETD) or distributed power telemetry.

**GCOR 6.26 Use of Multiple Main Tracks, Supplemental Instruction**

Unless otherwise indicated in the individual subdivision special instructions, when using Main Tracks in westward or southward timetable direction, they will be numbered consecutively from right to left beginning from Main 1. When using in eastward or northward timetable direction, they will be numbered from left to right beginning with Main 1.

**GCOR 6.29.1 Inspecting Passing Trains**—"Ground Inspections" is changed to read:

**Conducting Inspections**

When a train is stopped and is met or passed by another train, a member of the crew must inspect the passing train. All crew members must remain alert and attentive while the inspection is being conducted.

If inspecting from the ground:

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.

**GCOR 6.32.2 Crossing Warning Devices (Highway/ Pathway - Rail Grade Crossings), Supplemental Instruction**

In the application of this rule, a crossing having a broken gate(s) is to be considered as having working devices when the balance of the automatic warning devices are seen to be working. Movement may proceed over the crossing at 15 MPH without stopping.

**GCOR 7.6 Securing Cars or Engines**—is changed to read:

Do not depend on air brakes to hold a train, engine or cars in place when left unattended. Engineer and conductor are jointly responsible, through a job briefing, to ensure equipment left unattended is properly secured and a sufficient number of cars have hand brakes applied to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, secure enough cars by applying hand brakes to prevent any remaining cars from moving.

**GCOR 7.7.1 Gravity Switch Moves**—is changed to read:

A gravity switch move is permitted only at locations where specifically indicated by individual subdivision special instructions or when approved by a supervisor due to circumstances such as mechanical failure, etc.

Before performing a gravity switch move, crew members must fully understand the intended movement. They must verify that the track is sufficiently clear and that switches and hand brakes are in working order.

When performing a gravity switch move:

- Not more than five cars may be handled at one time.
- Sufficient hand brakes must be manned by crew members to insure that the movement can be controlled and stopped.
- Using the hand brake on cars with shiftable loads must be avoided.
- Cars must not be allowed to couple to other equipment.

**GCOR 7.12 Movement Into Spur Tracks**—is deleted entirely.

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**GCOR 8.9.1 Testing Spring Switch**—That part reading:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop.
   - Stop and Proceed.
   or
   - Restricted Proceed.

Is changed to read:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop
   - Stop and Proceed
   - Restricting
   or
   - Restricted Proceed

**GCOR 8.19 Automatic Switches**—the following paragraph is added:

In non-signaled territory, when movement continues beyond an automatic switch signal displaying a Stop indication, train must move at Restricted Speed for two miles or until leading wheels pass the next automatic switch signal or opposing distant signal.

**GCOR 9.8 Next Governing Signal**—is changed to read:

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

This rule does not apply when a rule or previous signal indication requires movement at restricted speed..

**GCOR 9.9 Train Delayed Within a Block**—is changed as follows:

B. CTC or Manual Interlocking Limits is changed to read:

B. CTC or Manual Interlocking Limits

Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

**GCOR 9.11 Movement from Signal Requiring Restricted Speed**—is changed to read:

When a train passes a signal requiring movement at Restricted Speed, the train must move at Restricted Speed until its leading wheels have passed the next governing signal. When a next governing signal does not exist, trains operating on the Main Track must move at Restricted Speed for two miles or until leading wheels pass the opposing distant signal.

**GCOR 9.15.2 Clearing Track Permits**—the following 4th bullet is added:

- Position of hand operated Main Track switches.

**GCOR 10.1.1**—The following rule is added:

**GCOR 10.1.1 Leaving the Main Track**

Unless authorized by track and time, a crew member must notify the control operator when the train clears the Main Track unless a crew member is in position to prevent a following movement from passing.

**GCOR 10.3, Track and Time**—the instructions inside the box are changed to read:

| |
|---|
| Track and time does not authorize trains to occupy the Main Track within automatic interlocking limits. |

**GCOR 10.3 Track and Time, Supplemental Instruction**

**Requesting Track and Time**

The employee requesting track and time will state name, occupation, location and train or other identification. The employee will copy the authority granted on the form provided for that purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with "That is correct." The train must not move until the engineer understands the track and time granted.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing track and time, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator "That is correct," the employee must not occupy the track. The employee requesting track and time must contact the control operator as soon as possible and confirm with the control operator that the track and time was not received.

**GCOR 13.1.4 Cab Signals Cut In and Out**—is changed as follows:

The following sentence is deleted from the last paragraph:

If the device was not tested previously, the engineer must make a departure test prior to entering ACS territory.

The following is added after the last paragraph:

Note: Partial cut out requirements do not apply to engines not so equipped.

**GCOR 13.3.1 Cab Signal and Block Signal Do Not Agree**—the exception is deleted:

Exception—When the train dispatcher's instructions require the train to proceed at Restricted Speed, the train must comply with the train dispatcher's instructions regardless of cab signal indication.

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**GCOR 13.3.3 Movement with an Inoperative Cab Signal Device**—is changed to read:

When it is determined the cab signal device is inoperative, the train may proceed according to block signal indications. However, the train must not exceed 40 MPH until it reaches a point where a crew member can report the defect to the train dispatcher.

The train dispatcher will establish an absolute block in advance of the train.

**GCOR 14.3 Operating With Track Warrants**—is changed as follows:

The following is added to Items 1 and 2:

The location of the specific point must be indicated on the track warrant form.

The following last paragraph is added:

**After Arrival Authority**

When track warrant requires "After Arrival" of another train, the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the meeting point.

**GCOR 14.7 Reporting Clear of Limits**—the following paragraph is deleted:

When a hand operated switch is used to clear the Main Track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

**GCOR 14.7 Reporting Clear of Limits, Supplemental Instruction**

**Reporting Clear/Releasing Track Warrants**

Engineer and conductor are jointly responsible, through job briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant.

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Engineer and conductor will communicate with the train dispatcher.
- Communication will use the following format:

Conductor will state: "Conductor (Name), locomotive initial, number, (direction), regarding track warrant (Number), reports clear of (mile post/location) (Provide switch briefing when required) - Over."

Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct? - Over."

Engineer will state: "Engineer (name), (location) is correct. - Over."

**GCOR 14.9 Copying Track Warrants**

That part reading:

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

Is changed to read:

Where paper copies are used, the conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

**Item A. Transmitting Track Warrants**—is changed to read:

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.

3. The employee will repeat the preprinted and written information transmitted by the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following:

   "Track Warrant (number) to (engine ID) (direction) is OK at (time)(dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher,

   or

   If the track warrant includes after arrival, the dispatcher will state the following:

   "Track Warrant (number), to (engine ID) (direction) with after arrival of (engine ID) (direction) at (location) is OK at (time) (dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat the "After Arrival" information, OK time and dispatcher's initials to the train dispatcher.

   Note: The summary information in Items 1, 2, 3 and the after arrival information in Item 4 will be exempt from pronouncing and spelling numbers as indicated in GCOR 2.14.1, Verbally Transmitting and Repeating Mandatory Directives.

**Item B. In Effect**—the last sentence is changed to read:

Rules qualified employees may relay track warrants.

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**GCOR 14.10 Track Warrant in Effect**—is changed to read:

A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits. Before a train reports clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, a crew member must restore hand operated Main Track switches to normal position unless relieved by track warrant.

Employees reporting clear or releasing a portion of track warrant limits must state:

- Their name or other identification
- Track warrant number being released
- Limits being released

In non-signaled territory or double track ABS territory (outside of restricted limits or yard limits), a crew member will job brief with the train dispatcher about the position of main track switches and those switches operated are locked within the limits being released, referencing completion of the Position of Switch form or stating no entries required.

**Time Limit Shown**

If the track warrant shows a time limit, the train must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

**GCOR 14.11 Changing Track Warrants**—the last paragraph is changed to read:

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued showing, "Void Authority _____" and the number of the track warrant being changed.

**GCOR 14.13 Mechanical Transmission of Track Warrants, Supplemental Instruction**

**Mechanical Issuance**

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom,
- Computer generated line on the bottom listing the items checked is missing,
  or
- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

**GCOR 15.1 Track Bulletins, Supplemental Instruction**

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

**GCOR 15.2 Protection by Track Bulletin Form B**—the following are added:

**C. Stop Column**

When "STOP" is written in the Stop column, the train must not enter the limits unless instructed by the employee in charge. A red flag may be displayed at the beginning of the limits. A train within the limits at the time the track bulletin Form B takes effect, must not make further movement until instructed by the employee in charge.

**D. Entering Within Limits**

Before entering the track governed by the track bulletin Form B from any location other than the beginning of the Form B limits, obtain permission from the employee in charge.

**GCOR 15.2 Protection by Track Bulletin Form B**—that part reading:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. The employee in charge will use the following format to establish communication with the train:

Is changed to read:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. When possible, attempt must be made at least 2 miles in advance of the limits. The employee in charge will use the following format to establish communication with the train:

**GCOR 15.9 Mechanical Transmission of Track Bulletins, Supplemental Instruction**

Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

**GCOR 15.13 Voiding Track Bulletins**

**A. Voiding Track Bulletins Verbally**

That part reading:

Employee must repeat the information to the train dispatcher. If correct, the word "VOID" will be entered to indicate that portion is no longer in effect.

Is changed to read:

Employee must repeat the information to the train dispatcher. Where paper copies are used, if correct the word "VOID" will be entered to indicate that portion is no longer in effect.

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**GCOR 15.13.1**—The following rule is added:

**GCOR 15.13.1 Voiding General Track Bulletins or Restrictions**

A bulletin or restriction or an entire GTB may be voided by the train dispatcher communicating the following:

1. "Restriction (number) ____ reading ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" in the margin to the left of the restriction made void.

2. "General track bulletin No. ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" across the first page of the general track bulletin being voided.

**GCOR 18.3 Broken or Missing Seals**—that part reading:
Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the designated authority.

Is changed to read:

Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the PTC Desk.

**GCOR 18.4 PTC Cut Out**—is changed to read:
The PTC system may only be cut out or disabled when authorized by rule or when proper authorization is received.

When permitted by the Train Dispatcher, PTC Desk or other supervisor, PTC may be cut out for, but not limited to, the following reasons:

- It becomes defective, or
- It prohibits train movement that should be allowed.

When instructed to cut out PTC or to proceed without PTC functioning as intended, notify the train dispatcher of the reason and who authorized.

**GCOR 18.9 Use of Restricted Mode**—is changed to read:
Restricted Mode must be turned on before performing work events such as:

- Switching
- Pickups, setouts, etc.
- Loading/unloading of work trains under direction of MW Employee in Charge

After all work events have been completed, turn off Restricted Mode.

**GCOR 18.12**—The following rule is added:

**GCOR 18.12 Movements with Inoperative PTC System**
Immediately notify the train dispatcher and PTC Desk when the controlling locomotive's PTC system fails to initialize or becomes inoperative, except where PTC is suspended by mandatory directive.

When operating without the PTC system in an "Active" state, the following speeds will govern:

In signaled territory:
Passenger trains.....79 MPH

**GCOR 18.13**—The following rule is added:

**GCOR 18.13 Movements Without PTC**
Freight movements engaged in:

- Yard service (including switching, transfer, local, etc.),
- Assembly or disassembly of trains,
- Hostling locomotives, or
- Remote control operations,

may operate on PTC territory without PTC if the movement:

- Originates or terminates in a yard,
- Does not travel in excess of 20 miles on PTC territory in one direction,
- Does not exceed restricted speed while on PTC territory, and
- Train dispatcher is notified.

**GCOR Abbreviations**—the following abbreviations are added:

AS..... Absolute Signal
CNT..... Connection
EBCS..... Eastbound Controlled Signal
EE..... East End
EXO..... East Crossover
ICS ..... Independently Controlled Switch
NA..... Not Applicable
NBCS ..... Northbound Controlled Signal
NE ..... North End
NXO..... North Crossover
POS..... Protect Open Switch
PTC ..... Positive Train Control
RCPS ..... Remote Control Power Switch
RESTRN..... Restriction
RL..... Restricted Limits
RP ..... Release Point
SBCS..... Southbound Controlled Signal
SE..... South End
SPMS ..... Switch Point Monitoring System
SS..... Station Sign
SW-N..... Switch No
SW-Y ..... Switch Yes
SXO..... South Crossover
TFND..... Track Flags Not Displayed
TID..... Track Integrity Down
TIWS ..... Track Integrity Warning System
WBCS..... Westbound Controlled Signal
WE..... West End
WXO..... West Crossover

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**GCOR Glossary**—the following glossary terms are added:

**General Track Bulletin**
A notice containing track bulletin restrictions and other conditions affecting train movement.

**Hard Cut Out (PTC)**
A state of the PTC system when PTC cut out switches are placed in the cut out position.

**PTC Full Enforcement Mode**
The status of PTC when all the following conditions exist:

- The system state is Active,
- a colored track line (other than gray) exists beneath the leading end of the movement,
- maximum speed is displayed, and
- next target or "None" is displayed.

When these conditions are met, the PTC system is actively providing warning and enforcement.

**Soft Cut Out (PTC)**
A state of the PTC system resulting from selection of the cut out key on the PTC display.

**15. Currently Not Used**

**16. Currently Not Used**

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**17. PTC - Supplemental Information**

**Locomotive Consist**

At locations where locomotive consists are assembled for trains that will operate on PTC territory, a PTC-equipped, lead-qualified locomotive must be placed in lead position. At non-PTC originating locations, departure of a train that will operate on PTC territory without a PTC-equipped, lead-qualified locomotive in lead position, must be approved by the train dispatcher.

**PTC Readiness Verifications**

At locations where locomotive consists are assembled, conduct an initialization verification and departure test on the lead unit as soon as possible. The following steps can be conducted by any trained personnel with a PTC log-in. A GTB is not required to complete this process.

1. On the PTC display, select MENU 1, then select INIT.
2. When text box displays, "THIS WILL ERASE EXISTING TRAIN DATA DO YOU WANT TO CONTINUE?" select YES.
3. On the RAILROAD SELECTION screen, highlight BNSF and select ADD, then SUBMIT.
4. The display should indicate "PLEASE WAIT FOR SYSTEM CONFIGURATION". The TMC is now establishing a connection to the office.
5. If prompted to download or install new software, follow current software deployment instructions as outlined in track bulletin.
6. When the "PRESS KEY TO ACCEPT TERMS OR CANCEL" message is displayed, the office server has established a connection. Select CANCEL. If the Accept Terms screen does not display, there is a PTC issue preventing connection to the server. Contact PTC Desk for further instructions.
7. From Menu 1, select DEPART test and follow the prompts to complete the departure test. When conducting the test, ensure the automatic brake valve is placed in Suppression, and remains in Suppression until the test is complete. Placing the automatic brake valve into any position other than suppression may nullify functions required for efficient PTC system operation.

**Restricted Speed**

PTC does not enforce all requirements of GCOR 6.27 - Restricted Speed. When required to operate at Restricted Speed, PTC enforces a speed of 20 MPH.

**Unusual Conditions**

Any train experiencing a PTC Enforced Braking Event which results in an occupied locomotive stopping in a tunnel or other enclosed structure, in addition to current instructions, immediately place Enforcement Cut Out Switches located in the nose of the locomotive to the Cut Out position. If operating conditions allow, recover brake pipe and exit the location.

Notify Train Dispatcher and contact the PTC Desk immediately and be governed by their instructions.

**PTC Desk**

The PTC Desk may be contacted by radio, or telephone 817-593-5900. When necessary to troubleshoot PTC issues, contact should be established by a crew member located on the lead locomotive (when practical).

**18. Electronic Delivery of Information**

PTC initialized trains may receive the following electronically delivered directives:

- Form A track bulletins
- Form B track bulletins
- Crossing warning notifications
- Track warrants

Train crews are responsible for complying with electronically delivered directives when:

- Notified by the prompt on the PTC display,
- Contacted by the train dispatcher confirming receipt of the directive, or
- Directives(s) remain viewable on the PTC display.

When crew members responsible for complying with electronically delivered directives are not in the controlling locomotive (such as train service employees in passenger service), the engineer will communicate to those crew members the contents of new directives as soon as practical after the prompt is received and prior to reaching the directive location.

**Failure Mode**

Electronically and verbally delivered directives are viewable via the PTC display. If PTC status changes to a condition where electronic view of directives is not available on the PTC display, be governed as follows:

| Directive | Train Crew Action |
|---|---|
| **Authority** | |
| Authority has been delivered electronically. | Stop the train consistent with good train handling and contact the train dispatcher. |
| **Restrictions** | |
| No restriction has been electronically delivered while enroute. | Train may continue operating by observing restrictions included in the General Track Bulletin. |
| Restriction has been electronically delivered while enroute. | Contact the train dispatcher to verbally receive the restriction information before reaching the location of the restriction. |
| Unsure if a restriction has been electronically delivered, or unsure of the location of an electronically delivered restriction. | Stop the train consistent with good train handling and contact the train dispatcher. |

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**18. (A) PTC Territory**

Trains operating in a PTC active state may receive electronically delivered directives without verbal interaction with the dispatcher. (Note: this process does not apply to Form B Track Bulletins). Train crews must review as soon as practical and follow prompts for acknowledgment.

Directives that are delivered electronically via PTC will immediately be displayed onboard and protected by PTC on trains operating in a PTC active state. When any directive is voided in the system by the train dispatcher trains operating with PTC active will no longer display an associated target and the train crew may consider any directive, other than a Form B, no longer in effect. All Track Bulletin Form B restrictions remain in effect until they expire or are made void by the train dispatcher.

**18. (B) Non-PTC Territory**

Where taking charge of a PTC-equipped train, the PTC system on the controlling locomotive must be initialized. The train dispatcher will initiate communication that a directive has been delivered. (Note: this verbal confirmation process does not apply to Form B Track Bulletins). Because PTC is in a disengaged state, directives will not be enforced by PTC. When any directive is voided in the system by the train dispatcher, the directive will remain in effect until verbally notified by the train dispatcher.

**Authority**

Train crews will receive "delivery prompts" for track warrants. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will state the track warrant number, and if included, box 5 (after arrival). Train crew will confirm receipt of the track warrant to the train dispatcher by stating the track warrant number, limits (including track) and total number of boxes marked including which specific boxes are marked. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive track warrant 725-45 with a box 5 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive track warrant 725-45 from Anna to Bess on main track with two boxes marked, 2 and 5."*

If the train crew cannot confirm the directive is on the PTC display or if the information displayed is incorrect, the directive will be issued using the verbal transmission / repetition process. Dispatcher will notify the PTC desk.

**Restrictions**

Train crews may not always receive "delivery prompts" for restrictions. It may be necessary to select "view bulletins" on the PTC display to locate the restriction being confirmed. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will contact the train crew and state the restriction number or milepost(s) that restriction applies to. The train crew will confirm receipt of the restriction to the train dispatcher by stating the restriction number (where applicable), milepost(s), speed (where applicable) and track on which the directive applies. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive form A track bulletin 1355 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive form A track bulletin 1355 from MP 181.0 to MP 181.5, 10 MPH on main track ".*

**19. Currently Not Used**

**20. Currently Not Used**

**21. Currently Not Used**

**22. Remote Control Operations**

- Employees assigned to a remote control crew are governed by the BNSF Remote Control Operating Instructions and must have a current copy accessible while on-duty.
- Only certified operators or students who have been trained in remote control operations may operate an Operator Control Unit of a Remote Control Locomotive.
- Division Timetable Special Instructions will designate limits of Remote Control Zones (RCZ). RCZ signs may also be posted at zone access locations.
- The Remote Control Operator in control of a Remote Control Locomotive must be notified of any track removed from service or working limits established for the protection of another craft.
- When a remote control operations system radio broadcasts "Operator Down", movements on adjacent tracks must move prepared to stop in half the range of vision until the safety of all members of the remote control crew is confirmed.

**23. Automatic Cab Signals**

Cab signal equipment must be cut out except on suburban equipment on the Chicago Subdivision.

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**24. Switch Tender Instructions**

The train dispatcher and switch tender are required to have a job safety briefing before a switch tender acts on instructions from the train dispatcher. Following a shift change, another briefing is required between the train dispatcher and switch tender, which will include discussion of pending instructions and determination if the instructions are still correct.

When communicating concerning approaching train movements, use engine initials and number and direction. Do not use only train symbols or blanket terms such as "westbound or eastbound trains."

The dispatcher will issue specific instructions to the switch tender. The switch tender must repeat the instructions to the train dispatcher and receive confirmation of being correct, before acting on the instructions.

For example: After confirming with the train dispatcher that BNSF 1234 West will be the next train to line from Main Track 1 to Main Track 2 at Robinson Spur, the switch tender is then to call the BNSF 1234 West and verify the train has authority from Main Track 1 to Main Track 2 at Robinson Spur. After verification has been received from the BNSF 1234 West, and after the switch tender has visually identified the BNSF 1234 West, the switch tender will line the route for the movement. After the movement is clear of the switch, the switch must be lined and locked in the normal position.

When necessary for the train dispatcher to change routing instructions to the switch tender after authority has been granted to a train, it is the responsibility of the dispatcher to communicate directly with the switch tender. Another authority over the switch that the tender is in charge of cannot be issued until the dispatcher has informed the switch tender of the change.

When a switch tender is at a remote location, away from a depot and/or base station radio, the switch tender must check with dispatcher when arriving at such location to confirm they can clearly communicate. If the switch tender becomes aware of any radio communication problems, the train dispatcher must be notified. The chief dispatcher will make particular arrangements when communication problems are evident.

While in charge of a switch, the switch tender must not leave the switch unattended unless it is lined and locked for normal movement.

The train dispatcher's transfer must include switch tender locations and pending instructions from the train dispatcher to the switch tender.

**25. FRA Random Drug Testing**

TY&E employees selected for FRA Random Drug Testing must show the start time of the Random Drug Test (RDT) in the remarks column of their timeslip. Start time of RDT begins when a supervisor notifies the employee that they are selected for RDT. A stop time on RDT is necessary only if different from their off-duty time.

**26. Verification of Rules Examination**

Employees required to pass rules examination must have a current rules examination card when issued, or engineer's certificate in their possession while on-duty.

**27. Cars Set Out Bad Order**

When practical, a car set out between terminals due to mechanical defect should be left where it can be accessed by truck for making repairs. If the car set out is a military shipment or Rail Sensitive Security Material (RSSM), the Resource Operation Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3. The PBX/MRAS radio system may be used for this communication.

**28. Grade Crossing Accidents**

The following information is designed to serve as post grade crossing accident guidelines. It is designed to provide the utmost in safety for you and your crew.

After the accident has occurred and the train is stopped:

A. Ensure the safety of crew members, accident victims, and the public.
B. Meet the requirements of GCOR 6.23.
C. Contact the dispatcher or any other available radio contact and advise:
    1. Exact location,
    and
    2. What emergency services are needed. Be sure to include alternate routes for the emergency vehicles if your train is blocking road crossings.
D. Assess the damage to the vehicle and train to determine if there is any danger to your crew or the public.
E. Assign a crew member to monitor a radio to provide further information for emergency assistance.
F. If it is safe, render assistance to accident victims. It is important not to move the victim unless a life threatening situation exists.
G. Turn "off" the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless necessary to permit emergency vehicles to access the accident scene through a blocked crossing, etc.
H. Only give information to:
    1. The investigating officer,
    or
    2. Authorized company managers.
        a. Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can recall.
        b. Record the badge number and name of the investigating police officer at the scene. Witness with the officer that the headlight is on, and that the whistle and bell on lead unit are in proper working order. Also, note that the crossing warning devices are functioning.
I. Assign a crew member to verify the accuracy of the train list. Save all train lists, track warrants, track condition messages, and other pertinent documents for the proper BNSF managers.
J. Ascertain that no part of your train is derailed and that it will be safe to proceed once released by the investigating officer.
K. Personal counseling will be available to any crew member who might experience post-accident trauma.

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**29. Trains Performing Track Maintenance Work**

The conductor is in charge of and will be responsible for all work train movements. The safety of the overall train operation is the responsibility of the entire train crew. During work activities the engineer may accept train movement instructions only from a designated individual identified in the job safety briefing before commencing work. The individual designated to provide train movement instructions to the engineer will be a member of the train crew except during work activities requiring precision train movement, such as rail recovery. An individual of the work group may be designated to communicate directly with the engineer for precision train movements under the supervision of the conductor.

The engineer will respond to all Stop signals.

When Maintenance of Way, Signal, Structures, Mechanical or other work groups are involved with the activities of the work train (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.), a coordinator from such group must be designated. The train crew will communicate with the designated coordinator concerning all train movements and work activities.

An initial job safety briefing will be conducted before commencing work and additional job safety briefings must be held at intervals not to exceed four hours until the end of the tour of duty. In addition, when there is a change in assignment or a significant delay in activities has occurred, a job safety briefing must be conducted before commencing work. Employees who subsequently work in the vicinity of a work train after such job safety briefings have been held, must not commence work until they have received a job safety briefing from the designated coordinator regardless of authority received to occupy the area. The conductor is responsible to ensure that no work activity begins until the required job safety briefings are complete.

Job safety briefings must include applicable operating rules, safety rules, special instructions and any other work-specific information. The designated coordinator is responsible for communicating impending train movements to the work groups under his control.

All employees assigned to a work train and/or its activities are responsible to be on the lookout for train or track car movements at all times. Lookouts will be utilized when necessary and all movements must be fully protected.

In signaled territory, when at the intended work location and before performing work associated with track maintenance (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.) on a Main Track or Siding the conductor must:

- Notify the train dispatcher of the milepost limits where the work will be performed.
- Notify the train dispatcher when the work has been completed.

**30. Track Condition Messages**

Track condition messages (TCM) may be issued by train dispatchers to cover restrictions that affect movements on tracks governed by GCOR/MWOR 6.28, or any restriction not normally covered by a track bulletin restriction.

Restrictions shown on a track condition message may be cancelled verbally by the train dispatcher.

Authority can be given by a train dispatcher or supervisor to enter a track shown to be out of service on a track condition message.

When a track warrant indicates a track condition or train message is to be received, conductor is responsible for securing those messages necessary for movement of their train. Track condition messages must be retained and complied with on all trips made during the tour of duty on which they were received.

**31. Securing Track Warrants/General Track Bulletins**

When reporting for duty at initial terminal, a crew member will secure track warrants, track bulletins, and track condition messages or general track bulletin, unless otherwise instructed. A relief crew member must contact the dispatcher before departing to determine if additional documents are required, and advise if all crew members are present and ready to depart.

If the identifying unit is not shown correctly on the address line, contact the train dispatcher and correct the address line before departing the initial station.

**32. Currently Not Used**

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**33. Flood, Excessive Wind, Tornado, Cold Weather and Earthquake Instructions**

**Observations by Train Crews Associated with Flood/High Water**

Instructions for observations, or when otherwise notified by the train dispatcher, of flood/high water with or without a flash flood warning:

| Conditions Observed Associated with Flooding/High Water | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Water over rail | Immediately stop train, consistent with good train handling. Report condition to Dispr. After stopping for these conditions, do not move the train until further instructions are received from maintenance personnel. | | |
| Surface irregularity | | | |
| Washout | | | |
| Side scour | | | |
| Erosion at piers, footing, dump planks and head walls of bridges | | | |
| Debris against bridge with active water flow | Do not exceed 40 MPH until entire train has passed the condition. Report to Dispr. | | |
| Turbulent water | Do not exceed 30 MPH until entire train has passed the condition. Report to Dispr. | | |

Instructions for observations of flood from a stream or river near BNSF track, with or without flash flood warning, or when otherwise notified by the train dispatcher of flood/high water:

| Water Observed Reaching Bottom of Ballast Line (Figure 1 Below) | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Standing Water | Report to Dispr | | |
| Moving Water | Do not exceed 30 MPH until entire train has passed the condition/warning limits and report to Dispr. | | |
| **Water Observed Reaching Top of Ties (Figure 1 Below)** | | | |
| Standing Water | Do not exceed 50 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 30 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 40 MPH until entire train has passed the condition/ warning limits. Report to Dispr. |
| Moving Water | Do not exceed 20 MPH and be prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits. Report to Dispr. | | |

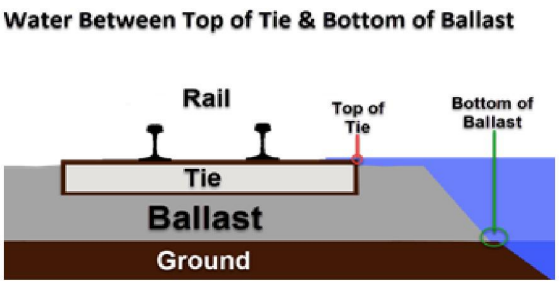



*Figure 1 - Top of Tie and Bottom of Ballast*

**Flash Flood Warning**

Weather information received by BNSF from Accu-Weather Enterprise Solutions, Inc., is categorized as a "Warning" when it describes conditions that require immediate action by the train dispatcher to notify train crews of imminent danger. These warnings are immediately distributed to the relevant train dispatchers. When Accu-Weather issues a "Flash Flood Warning", the dispatching center will immediately advise all involved trains of the specific conditions.

Flash Flood Critical Areas are designated in the Division Timetable. Division Engineers will identify "critical" areas by subdivision, segmented by mile post locations based upon their susceptibility to flooding or their history of being prone to washouts or side-scour wash.

Instructions for movement of trains when notified of flash flood warning:

| Flash Flood Warning | Passenger Trains | Key Trains | All Other Trains |
|---|---|---|---|
| **Critical Area** | Do not exceed 20 MPH through critical area limits and be prepared to stop for slides, washouts, debris, track surface irregularities or obstructions on the track. | | |
| **Non-Critical Area** | Do not exceed 50 MPH through limits identified in the warning. | Do not exceed 30 MPH through limits identified in the warning. | Do not exceed 40 MPH through limits identified in the warning. |
| *Additional restrictions, including a requirement to stop the train, may apply if flooding/high water conditions are observed by the train crew.* | | | |

The Flash Flood Warning restrictions will remain in effect until the track has been inspected and employee performing the inspection advises the train dispatcher that the applicable restriction is canceled. If the Flash Flood Warning limits include locations identified as being "critical," these areas will be inspected on a priority basis as directed by the dispatching center.

Train dispatchers will continue to issue Flash Flood Warnings until the track has been inspected and the Flash Flood Warning expires or is canceled by Accu-Weather.

**Local Observations by Maintenance Personnel**

When local maintenance personnel become aware of current conditions that might produce flash flooding that could result in damage to BNSF track or structures, they will:

- Immediately place the speed restriction described above on the affected route.
- Inspect the track for washouts, side-scour wash, surface irregularities and/or water over the rail.
- Carefully inspect bridge foundations and drainage structures, with careful attention to bridges with mud sills, for erosion behind dump planks and head walls, erosion around piers and footings, and obstructions from drift and debris.
- If water level, turbulence, or other conditions make a thorough inspection impossible at the site of such a bridge, operations of all trains will be reduced to no more than 20 MPH and prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits until it is possible to make a proper inspection.
- If, during the initial track inspection, there is any doubt about the safety of train operations over bridges, a qualified Structures employee must be called at once, and any speed restrictions that have been placed on bridges will not be lifted until authorized by the Structures employee.
- Track and bridge foremen must continue to patrol past their respective territories if an adjoining territory is likely to have been damaged, and such damage might not have been discovered.

**Excessive Wind Instructions**

When wind warnings are received meeting the wind speed criteria, the train dispatcher will make a general radio broadcast regarding the High Wind Warning over the radio(s) nearest the affected area and then will notify all affected trains and employees with movement authority providing time and limits of the expected high winds. The term "until traversed" may be used in place of communicating the expiration time of the warning when notifying trains and MW authority holders of wind warnings. Until traversed means the rear of thetrain is clear of the limits. The following table governs movement of trains within or entering the High Wind Warning limits when the general radio broadcast is received:

| Wind Speed | Passenger Trains (includes Amtrak, commuter trains and freight trains consisting entirely of business cars) | Light engines, empty bulk commodity tank car unit trains containing loaded buffer cars (if equipped) weighing 75 tons or greater, loaded ribbon rail trains and loaded bulk commodity unit trains as defined in the Air Brake and Train Handling Rules Glossary. | Trains handling cars with two empty containers stacked on top of one another (as indicated on train list) | All other trains |
|---|---|---|---|---|
| 51 to 60 MPH | 40 MPH* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |
| 61 MPH or greater | Staging requirements* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |

**Staging Requirements:**

Affected trains and equipment may proceed not exceeding 20 MPH pending notification of a staging location (e.g. station, siding or location with double crossovers) as directed by the train dispatcher to allow trains not affected by the wind warning to pass.

* When local weather conditions are observed not to be as severe as the wind warning indicated and these conditions would not impact safety, an employee making the observation will advise the train dispatcher of the local conditions. If the employee advises local wind conditions are 50 MPH or less, with chief dispatcher authority the train dispatcher may grant permission for the passenger trains restricted to 40 MPH and other affected trains to operate at maximum authorized speed. Observations of local wind conditions can be made by any of the following:

- Crew member on an affected train
- Railroad employee in the field at location of warning equipped with a wind monitoring device (anemometer)
- Local tower mounted wind monitoring device (anemometer)

**Tornado Watch and Warning Instructions**

Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile and extend the length of a city block to 300 miles. The greatest potential for such storms usually exists from April through September.

When tornado watch or warnings are received, the train dispatcher will notify all affected trains and employees with authority in the area providing the tornado watch or warning information.

A "tornado watch" means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4-6 hours before the conditions may occur.

During a tornado watch, all train movements and yard activities will continue, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud, or combination of the above. When a crew knows they are in a watch area, the radio on a locomotive or a packset should be used to monitor instructions and information to and from the train dispatcher. In the event a crew spots a funnel cloud, the train dispatcher should be immediately notified, consistent with the crew's safety.

If a train or yard assignment has an occupied caboose, upon being notified of a tornado watch, the occupants of the caboose should immediately move to the locomotive consist. While in the process of moving to the locomotive, if the tornado watch turns into a "tornado warning," or a funnel cloud is spotted, those affected should seek shelter in a nearby ditch, ravine, culvert or in a depression. If none of these are available, lie face down on the ground with hands over the head away from the caboose or cars in the train.

A "tornado warning" means a tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains and crews appraised of limits of tornado warnings. Train crews are to follow instructions as follows:

During a tornado warning, all train movements and yard activities must stop. Any train enroute will stop and employees should seek appropriate shelter consistent with the safety of all involved, avoiding the stopping of a train on a high bridge, across railroad and highway crossing at grade, or anywhere the presence of a train could be a hindrance.

After the tornado warning has expired:

- If determination is made that the path of the tornado crossed the tracks at the location or in the immediate vicinity of the train, crew members must inspect their train before moving to determine if any damage or derailment has occurred to the train or if the track structure has been damaged.
- All trains within or entering the tornado warning limits may proceed, prepared to stop when approaching bridges, culverts, or other points likely to be affected until relieved by the dispatcher. The train dispatcher must be advised immediately of damage or unexpected conditions.
- The train dispatcher must restrict trains as prescribed in the second bullet, until an inspection has been completed by division employees or all of the limits of the tornado warning have been traversed by a train and it is confirmed by the train crew(s) that no damage or unexpected conditions were observed.

**Cold Weather Restrictions:**

The correlations that exist between rail service failures, temperature, train axle load, track and equipment conditions, and train speed are complex and involve many factors including equipment and track component design and material properties, their relative wear conditions, and the rail/wheel interaction for various traffic mixes and operating conditions.

In order to maximize safety with regard to extreme temperatures and temperature changes, rail laying temperatures and weather extremities across our railroad have been considered. In that effort, the railroad has been divided into two regions as follows:

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**Region 1** contains the following divisions:

| | |
|---|---|
| California | All subdivisions |
| Chicago | Beardstown and Yates City subdivisions |
| Heartland | Afton, Amory, Birmingham, Cherokee, Cuba, Ft. Scott, Hannibal, River, Thayer North, and Thayer South subdivisions |
| Kansas | Arkansas City, Douglass, Emporia, Hereford, La Junta, Panhandle, Strong City, and Topeka subdivisions |
| Montana | Kootenai River subdivision from MP 44.0 to Sandpoint Jct only |
| Northwest | All subdivisions |
| Red River | All subdivisions |
| Southwest | All subdivisions |

**Region 2** contains the following divisions:

| | |
|---|---|
| Chicago | All subdivisions excluding Beardstown and Yates City |
| Heartland | Bayard, Council Bluffs, Creston, Napier, Omaha, and St. Joseph subdivisions |
| Kansas | Boise City, Dalhart, and Twin Peaks subdivisions |
| Montana | All subdivisions excluding that part of Kootenai River subdivision from MP 44.0 to Sandpoint Jct |
| Powder River | All subdivisions |
| Twin Cities | All subdivisions |

**Cold Weather Train Speeds:**
The Engineering Department has identified two factors which require Cold Weather Train Speeds---Low Temperature Threshold and Temperature Differential Threshold, as follows:

**Low Temperature Threshold:**
In Region 1, this threshold is 0 degrees Fahrenheit.
In Region 2, this threshold is -20 degrees Fahrenheit.

Unless further restricted by individual subdivision Special Instructions, be governed by the following:

When ambient (air) temperature drops below the Low Temperature Threshold trains must not exceed the following speeds:

In non-signaled territory:
40 MPH for all trains.

In block signal system limits:

| | |
|---|---|
| Trains 100 tons per operative brake and greater. | 40 MPH |
| Key trains | |
| Trains less than 100 tons per operative brake. | 50 MPH |
| Passenger trains, Z-symbol intermodal trains, or single level loaded intermodal trains. | 65 MPH |

If in doubt as to the temperature, contact the train dispatcher. Notify the train dispatcher when your train is restricted due to this requirement.

These restrictions remain in effect until the ambient (air) temperatures rise above the Low Temperature Threshold.

**Temperature Differential Threshold:**
In Region 1, this is any temperature of 50 degrees Fahrenheit or warmer that falls to 10 degrees Fahrenheit or colder within 24 hours.

In Region 2, this is any temperature of 40 degrees Fahrenheit or warmer that falls to 0 degrees Fahrenheit or colder within 24 hours.

The train dispatcher will make notification to trains that temperature has exceeded the Temperature Differential Threshold. When so notified, trains must observe Cold Weather Train Speeds, by Region, as shown above. The Engineering Department will perform a track inspection, reporting results to the train dispatcher. If no further restrictions result from the track inspection, the train dispatcher will verbally notify the trains affected.

Be aware that Cold Weather Train Speeds may still be required due to Low Temperature Threshold. In other words, once track inspection is completed following a Temperature Differential Threshold, the ambient (air) temperature may still be below the Low Temperature Threshold, requiring that Cold Weather Train Speeds must still be observed.

However, if the ambient (air) temperature is above the Low Temperature Threshold and no further restrictions resulted from track inspections, observance of Cold Weather Train Speeds is not required.

**Determining Ambient Temperature**
When referring to a subdivision timetable for extreme air temperature operating instructions, be governed by the following:

- Ambient air temperature readings may be obtained by train crews utilizing any local means available such as field personnel, track side warning detectors, yardmasters, temperature displays from such sources as banks, etc.
- When unable to determine the ambient air temperature utilizing local methods, contact the train dispatcher who will determine ambient air temperature at the closest available location utilizing the AccuWeather website or other available means.

**Earthquake Instructions**
When an earthquake is reported, the train dispatcher will do the following: (See Decision Table, next column)

1. If the magnitude or epicenter are unknown, instruct all trains within 150 miles of the reporting location to “proceed at Restricted Speed due to earthquake conditions.” An acknowledgment must be obtained from each train or engine receiving these instructions.
2. Once magnitude and epicenter are known, the following inspection criteria will apply:
   - If magnitude is less than 5.0, no inspection is required.
   - If magnitude is 5.0 or greater, response will depend on the group of states and provinces within which the epicenter is located and the following criteria will apply within the designated radius from the epicenter.

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| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| Less than 5.0 | No Inspection Required | N/A | N/A | N/A | N/A |
| 5.0 to 5.49 | Trains proceed at Restricted Speed until signals have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 5.5 to 5.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 6.0 to 6.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 150 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 50 Miles | 80 Miles | 150 Miles | 80 Miles |
| 6.5 to 6.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 220 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 70 Miles | 140 Miles | 220 Miles | 140 Miles |
| 7.0 to 7.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 400 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 100 Miles | 300 Miles | 400 Miles | 300 Miles |
| 7.5 and above | Trains stop until instructed to proceed after inspection of track, signals and bridges completed. | As Directed* | As Directed* | As Directed* | As Directed* |

* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

Group 1: California and Baja California, Mexico
Group 2: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico
Group 3: Area east of Group 2
Group 4: Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

**35. Switching and Handling Business Cars**

a. Business Cars must be handled as outlined in accordance with GCOR 7.3, 7.6, and 7.9.
b. Air Brakes—The Business Car air brake system must be connected to the locomotive and the automatic air brake used in controlling movements during switching.
c. Coupling—When coupling into Business Cars, Business Car equipment, or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. Business Cars must not be cut off while in motion or no car moving under its own momentum should be allowed to couple to them.
   Note: Business cars being added to the rear of trains must be performed by a separate locomotive (switch engine) with coupling not to exceed 1 mph. Do not attempt to make a coupling with the rear of the outbound train onto the business cars being added.
d. After Coupling—Once the coupling is made to the Business Car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communication connections.
e. When cars are to be coupled to the observation end of BNSF Business Car 30 (Glacier View) and Business Car 32 (William B. Strong), the car next to the Business Car must be an empty flat, gondola or other type of car with a low profile.
f. 480 Volt electrical jumper cables between Business Cars or any other car so equipped will be considered to be energized until applicable lockout/tagout procedures confirm connections are de-energized. All connections and disconnections are to be performed by authorized Mechanical Personnel Only.
g. Cars are to be considered occupied at all times whether they are moving in the train or parked.
h. When cars or trains are parked, protection must be established as outlined in GCOR 5.12. Local Transportation Department will coordinate with local Mechanical Department to provide required protection.
i. White “Occupied Camp Car” signs will be available on Business Cars through Business Car personnel.
j. All hand brakes must be fully released before moving Business Cars. If a hand brake is not accessible on an enclosed vestibule, the on board Mechanical Rider or Mechanical Supervisor must be contacted to allow access or verify that hand brakes have been released.
k. Business Cars cannot be moved until vestibule steps are raised. Vestibule steps must not be lowered until Business Cars have come to a complete stop.

**36. Instructions for Handling Continuous Rail**

(Excluding articulated loads of 80 ft. length rail or less) Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by ABTH Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the “rail” cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled “Buffer/Idler” in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BNSF 920119 through BNSF 920173 , BNSF 920230 through 920249, and BNSF 920280 through 920299 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

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**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
   - Must be handled in special service.
   - Must not be required to make setouts and pickups enroute.
     - Exception: When authorized to operate two loaded rail trains together, splitting of the trains is permitted.
   - Must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)
   May be handled in trains other than special service under the following conditions:
   - Rail train must be on head end.
   - Train length limited to 64 cars.
   - Should not be required to make setouts and pickups enroute.
   - Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
   - If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative enroute, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
   - Strobe lights at each end ramp car must be observed frequently enroute. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
     a. If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
     b. If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.
   - If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

   The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolyte batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

   The “ramp or tunnel” strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

   To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute; and fully charged batteries will operate them for about sixteen hours.

   The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

   Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

   At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**

Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4” x 4” hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**

When handling empty ‘rail train’ blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car.

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**37. Key Train and Key Train Commodity Securement Requirements**

Do not leave a Key Train or rail cars meeting the Key Train definition unattended on a main track or siding unless permitted by the train dispatcher.

The train dispatcher may only grant permission to leave the train or car(s) at locations specified by timetable/special instructions or when otherwise necessary, after consulting with NOC-General Director Transportation, Corridor Superintendent, Assistant Corridor Superintendent, or Chief Dispatcher to evaluate operating circumstances.

When permission to leave the train or car(s) is received from the train dispatcher:

- Job brief between members of the crew to review all applicable securement requirements.
- Secure equipment as required by all securement requirements of the employing railroad.
- Include the following in a job safety briefing with the train dispatcher, who will verify information is provided:
  - Tonnage and length of train (or total number of individual cars) left unattended,
  - Grade of track at the location as indicated by timetable grade chart.
  - Whether equipment secured is located on curve or straight track,
  - Any inclement weather conditions (e.g., precipitation, high wind),
  - Total number of hand brakes applied,
  - Confirmation the train or car(s) is secure. Communication to include statement, "Conductor and engineer agree securement requirements have been met."

Note: These requirements do not apply when a portion of the train or car(s) is left properly secured and the on-duty crew is:

- Picking up, setting out, or repositioning cars at an industry,
- Switching cars to/from tracks adjacent to main track or siding,
- Adding, removing, or repositioning locomotives, or
- Moving part of a train when doubling a hill or cutting crossings.

**38. De Minimis Territory**

De minimis territory carries a minimal quantity of PIH/TIH materials and must meet certain criteria related to annual tonnage, grade, train spacing, and volume factors including:

- Fewer than 100 loaded cars containing PIH/TIH materials per year, and
- Two or fewer trains per calendar day carrying any quantity of PIH/TIH (loaded and residue/empty).

Prior to operating on de minimis territory train crew must notify the train dispatcher if carrying any quantity of PIH/TIH materials (loaded and residue/empty).

Maximum speed of trains carrying any quantity of PIH/TIH materials on de minimis territory is 40 MPH.

**De Minimis Territories**

| Division | Subdivision | Limits |
|---|---|---|
| Red River | Conroe | MP 77.0 to MP 152.2 |
| Southwest | El Paso | MP 936.1 to MP 1152.5 |
| | Phoenix | MP 135.0 to MP 181.2 |
| Powder River | Casper | MP 458.9 to MP 513.1 |
| Montana | Great Falls | MP 37.3 to MP 97.0 |
| Twin Cities | Aberdeen | MP 704.6 to MP 777.0 |
| | Noyes | MP 0.0 to MP 85.0 |

**39. Train Inspection Due to Track Indication**

A BNSF or foreign line carrier crew instructed by the train dispatcher/control operator to inspect their train due to track indication(s) must promptly stop the train consistent with good train handling procedures and inspect both sides of the entire train. During inspection, particular focus must be given to wheels, axles, trucks or other parts of the train that may cause track damage.

When conditions permit, inspection is to be performed while the train is moving, not exceeding 5 MPH to afford the inspector opportunity to hear a defect such as a broken wheel. To complete inspecting the entire train, inspection may also be performed while backing up not exceeding 5 MPH when all requirements of GCOR 6.6 (Back Up Movements) can be met.

Any side or portion of the train that cannot be inspected while the train is moving must be inspected while the train is stopped. Discontinue inspection if it cannot be completed safely until an alternative is identified by job safety briefing or coordination through the train dispatcher/control operator and/or supervisor.

Notify the train dispatcher/control operator of any defects and when inspection is complete.

**40. Rear End Restricted Cars**

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

**41. Car Identification B-End**

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Multi-platform Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

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**42. Currently Not Used**

**43. Signal Awareness/Position of Switch Form**

Signal awareness and Position of Switch Forms must be completed when operating on subdivisions where PTC is not in effect, or when operating on territory where PTC is in effect and train is not PTC equipped.

Note: On PTC active trains where the PTC system becomes inoperable enroute, Signal Awareness and Position of Switch Forms are not required to be completed.

Subdivision-specific signal awareness/position of switch forms available at on-duty points must contain at least the minimum requirements shown on the standard form. These forms may contain additional subdivision-specific information as approved by the Division General Manager. When subdivision specific signal awareness/position of switch forms are not available, crew members may request a standard form be included with the GTB. When required, in addition to observing and calling signals as required by GCOR 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects, yellow or yellow-red flags and trackside warning detector exceptions must be recorded.

Record the following:

- CLEAR signals - Name or aspect.
- All other signals - Name or aspect of the signal, the train speed and time signal passed.
- Flags - Name and location of each flag, the train speed and time flag passed.

When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (outside of restricted limits or yard limits) a crew member must record:

- Name and location of hand operated main track switches, switch point locks, and derails operated.
- Name and location of hand operated main track switches left in reverse position.
- Time and initials of employee operating the main track switch, switch point lock or derail.
- Time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form.
- Entry of appropriate box number when switch is left in reverse position.

Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail. The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. If not practical for both the conductor and engineer to initial the form, after a job safety briefing, the person filling out the form can enter the other initials on the form. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, when completion of Position of Switch Form is required and operating in non-signaled territory or Double Track ABS territory (except in Restricted Limits and Yard Limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position." If radios become inoperable, all members of crew must job safety brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

Standard forms:

Signal Awareness Form (Location to Location)

Date:_____ Conductor:_____ Engineer:_____

Train Symbol:_____

Block System Limits

| Signal Location / Detector Exception | Signal Name | | | | | | *Speed | *Time Passed / Time at Required Speed | Flag Location and Name |
|---|---|---|---|---|---|---|---|---|---|
| | Clear (Mark X) | Approach Medium (Mark X) | Approach (Mark X) | Stop and Proceed (Mark X) | Stop (Mark X) | Other (Mark X) | | | |
| Examples | | | | | | | | | |
| CP 5325 | X | | | | | | | | |
| CP 5332 | | | X | | | | 40 MPH | 1545 1548 | |
| WSS Anna | | X | | | | | 60 MPH | 1715 | |
| | | | | | | | | | |
| TWD MP 566.5 | Exception - Main 1, Hot Journal, Axle 45, Right side | | | | | | | | |

*It is not required to indicate speed and time for CLEAR signals.
The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting
Y - Yellow Flag, Y/R - Yellow-Red Flag

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| Position of Switch/Flag Location | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subdivision(s) | | | | | | | |
| Flag Location | Flag Name | MPH | Switch/Derail/Switch Point Lock Name and Location | Time/ Initials Operated | Time/ Initials Restored | Engineer's Initials | Conductor's Initials |
| Examples: | | | | | | | |
| MP 21 | Y | 30 | | | | | |
| | | | W House Track SW Bess | 1800 LGW | 1935 LGW | KDW | DET |
| | | | ESS Anna | 2100 LGW | Box 13 | KDW | DET |
| The following abbreviations may be used: Y - Yellow Flag, Y/R - Yellow-Red Flag | | | | | | | |
| Conductor Signature: | | | | | | | |

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)
  - Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
  - Place in company or US mail for handling.
- Notify the train dispatcher of the near collision providing as much information as possible. The dispatcher will notify the ROCC.

Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF Police personnel or to the Resource Operations Call Center at 1-800-832-5452.

**45. Network Operations Center Notification Requirements**

**Procedures for Contacting Help Desks**

- Train Dispatcher - Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an HTD/ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Chief Dispatcher - For Mechanical Related Service Interruptions (SIs), must make sure that the correct lead locomotive ID, ETD, cars, etc., are correctly reported when generating a service interruption in SIDOL.
- Mechanical Help Desk - After initially recording and providing general information about defective locomotives, cars, or an HTD/ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Train crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

Note: At terminals, locomotive and/or HTD/ETD defects (on either ROAD or YARD locomotives) must immediately be reported to local supervision the Mechanical Help Desk. A bad order tag must then be attached to the ETD to prevent subsequent use before repairs can be made and be governed by local supervision on where to place bad ordered ETD.

- Bad Order ETD Handling Between Terminals- Train crews who have a bad order ETD removed from their train must open an ETD defect with the Mechanical Desk, attach a bad order tag to the ETD, and either turn over the bad order ETD to the mechancal responder on site or if no mechanical responder is assisting train, transport the bad order ETD in the front portion of the cab of the lead locomotive. When transporting, ensure the ETD is placed to where a tripping hazard will not exist while entering and exiting the locomotive cab. Upon reaching the terminal, the train crew must contact and be governed by local supervision on where to place the bad ordered ETD. Train crews being relieved enroute must notify relief crew of bad ordered ETD placed in the cab for their handling upon reaching terminal.

Before repositioning of the lead locomotive in a consist, train crews must contact the Mechanical Help Desk to check lead qualification status of other locomotives in the consist to determine which may be used as a lead locomotive.

The Mechanical Help Desk may be contacted by phone at:

Operations North-817-352-2840, Co. Line 8-352-2840
Operations South-817-352-2836, Co. Line 8-352-2836

Service Support-In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting:
BNSF company line-8-593-7610
Toll-free line-800-549-4601
BNSF fax line-8-593-7615
Fax toll-free line-800-234-1341

Interchange reporting:
BNSF company line-8-593-7640
Toll-free line-800-206-3846
BNSF fax line-8-593-7645
Fax toll-free line-800-223-6757

**46. Special Car Handling Instructions (SCHI)**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

| CODE | DESCRIPTION |
|---|---|
| AG | Armed Guard Service |
| AV | Annual Volume |
| BH | Bad Order Home Shops |
| BN | If Bad Order Notify Shipper |
| BT | Bare Table Flat |
| B1 | Bad Order |
| B2 | Cleaned (swept), Holes in floor 1 in. to 6 in. |
| CA | Moving to a Customer Demand |
| CB | CARB (See Note 3) |
| CC | To Be Cleaned and Conditioned |
| CD | Condemned Car (See Note 1) |
| CI | Customs Inspection |
| CO | Coload Manifest Car |
| CR | Empty Coal Car Moving as Revenue |
| CS | Customer Storage |
| CU | Customer Stage |
| CY | Certification That This Equipment is for Recycling |
| DB | Distributed Van Bad Ordered |
| DH | Do Not Hump |
| DI | Redistribute at Destination |
| DK | Do not couple to double shelf coupler cars |
| DN | Shipper's Authority Required for Diversion |
| DO | Delivery Order Shipment |
| DR | Drop Yard |
| DS | Do not spot for loading other than hazardous last contained. |
| DT | Distributed Intermodal Equipment |
| DU | Do Not Uncouple |
| DV | Unit has been diverted |
| EC | Speed Restriction 55 MPH |
| EH | Embargo Hold |

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EL ..... Empty Container Mechanical Lock
EM ..... Hold for Equipment Management
ER ..... Return Empty Via Reverse Route
ES ..... Expedited Service
EW ..... Hold Early Warning
FA ..... Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB ..... Automobiles Headlights Facing B (Brake End) of Autoveyor
FM ..... Fumigate Car Now
FP ..... Fumigation Placards Applied
HA ..... Cars Held for the Customer in Bond Pending Customs Authority
HB ..... Hold for Billing—Mini Waybill Indicating Industry to Bill
HC ..... Hold for FMC Redistribution
HD ..... Cars Held for Customer Diversion
HE ..... Head End Only
HF ..... Car Held for BNSF Rail Clearances (High Wide)
HG ..... Cars Held for BNSF Pending Customer File Information
HH ..... Cars Held for Overload Condition
HI ..... Hold for Inspection
HJ ..... Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK ..... Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL ..... Excessive Dimension
HM ..... Moving in ISO Tank Container
HN ..... Cars Held for Specified Local Conditions, **Restricted Usage
HO ..... Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR ..... Cars Held for Customer Furtherance Instructions After Arrival at Destination
HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement
HT ..... Heat Car
HV ..... High Value Shipment
HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier
IB ..... In BNSF Bond
IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs
ID ..... In Bond Beyond BNSF Destination
IE ..... Interchange Error
IH ..... Inhalation Hazard
IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico
IN ..... Hold for Inspection
IS ..... In Shipper's Bond
IU ..... Inspection was Requested by US Customs at Port of Entry into USA
LC ..... Car Trip Leased to Consignee
LD ..... Local Distribution Empty
LG ..... Loaded to Gallonage Capacity
LO ..... Local Orders
LQ ..... Loaded to Full Cubic Capacity
LS ..... Handle in Local Service Only
LU ..... Unload in Laredo proper
LV ..... Loaded to Full Visible Capacity
LX ..... Cleared for export via Laredo
L1 ..... Customer Location 1
L2 ..... Location 2 - East Plant
M8 ..... Inspect 8 axle or greater span bolster car for ride quality components
MB ..... Make Bill of Lading
MC ..... Measure Car Now
MD ..... Mixed Destination Intermodal Units
MI ..... Requires mechanical inspection, do not move on train.
MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit
MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit
NC ..... Non-credit Patron
ND ..... Do Not Divert
NH ..... No Hit—Car Distribution
NL ..... IMDL van or container requires Nava Lock device
NM ..... Non Misc. Credit Patron—Car held account charges due
NP ..... No Placards Required
NT ..... Do Not Transfer Contents
OI ..... Oils Marine Pollutant
ON ..... Oil Notation
PD ..... Privately Owned Equipment Subject to Demurrage
PH ..... Hold for Pool Destination
PJ ..... Mechanical Project Job
PR ..... Prospective Loading Empty
PT ..... Hold for Pre-Trip
QD ..... Hold for Queue Demand
QH ..... Hazmat Hold—Do Not Transport
RC ..... Restricted Commodity
RE ..... Rear End Only
RI ..... Rail Inspection Service
RJ ..... Hold for Rejected
RL ..... Revenue Locomotive - Check for Alignment Control
RP ..... Rail Controlled Private
RS ..... Rule 7 Reject Candidate
SC ..... Equipment Scrapped
SD ..... Car Sold
SE ..... Hold for Seasonal Storage
SF ..... Feed Now
SH ..... OPSL Hold
SO ..... Shipper's Order
SR ..... Rail Surveillance Required
SS ..... Surplus Storage
ST ..... Move on special train only, requires single car train movement.
SW ..... Switch Only Empty Furnished by Foreign Road
SX ..... Speed Restriction Exception to Sys Special Inst. - OK to Run at Train Speed
TB ..... Car Control Distributed Bad Order
TC ..... Tank Car, Meets CPC-1232 standards
TN ..... Tank Car, Non - CPC-1232 standards
TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated
TS ..... Transit Shipment
TU ..... Turn This Car Now
UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.
UP ..... Unloaded as Placarded
UR ..... Unload from right side (from brake end)
VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)
VB ..... Vehicles Headlights Facing B-End (Brake End)
WA ..... Weigh After Spotted and Released
WB ..... Weigh This Car Both Before and After It Goes to Spot
WH ..... Weigh
WI ..... Waive Inspection
WL ..... Weigh Light
XM ..... Cleared to Cross from US to Mexico
25 ..... 25 MPH Speed Restriction (See Note 2)

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**Clean and Condition Codes for Empty Cars**

| CODE | DESCRIPTION |
|---|---|
| F1 | Washed, Food Grade |
| F2 | Cleaned (Swept), Food Grade |
| F3 | Dirty, Food Grade |
| F4 | Cond/Repairs, Food Grade |
| F5 | "Not Observed", Food Grade |
| F6 | Rinse, Food Grade |
| F7 | Inspected, Food Grade |
| P1 | Washed, Processor Grade |
| P2 | Cleaned (Swept), Processor Grade |
| P3 | Dirty, Processor Grade |
| P4 | Cond/Repairs, Processor Grade |
| P5 | "Not Observed", Processor Grade |
| P6 | Rinse, Processor Grade |
| P7 | Inspected, Processor Grade |
| S1 | Washed, Standard Grade |
| S2 | Cleaned (Swept), Standard Grade |
| S3 | Dirty, Standard Grade |
| S4 | Cond/Repairs, Standard Grade |
| S5 | "Not Observed", Standard Grade |
| S6 | Rinse, Standard Grade |
| S7 | Inspected, Standard Grade |
| S0 | Washed and Sanitized |

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

**Note 3.** The California Air Resource Board (CARB) has instituted tighter emissions standards for transportation refrigeration units. Some BNSF refrigerated boxcars are not compliant with the new standard and therefore cannot originate, terminate or transit through California state. Non-CARB-compliant cars can be identified by a CB code in the SCHI field and are color coded reverse video blue in TSS.

Equipment management controls have been implemented to assign only CARB cars to the state of California. Waybill edits will verify compliance at release and place a STOP on non-CARB cars if waybilled to a California destination.

No substitution between Non-CARB and CARB cars is allowed unless work orders specifically authorize the exception. Yard Block HOLDCB prevents any Non-CARB cars destined to California, or originating in California from scheduling to a train. Cars will go HOLDMT at origin.

Non-CARB cars will not schedule to trains terminating in or passing through California. Attempts to TRNSET a Non-CARB car to a California-routed train will result in a pop-up window advising that the car must be removed from the line-up and explaining why.

For questions or assistance with handling exceptions for BNSF refrigerated boxcars, email your concerns to the CARB Resolution Team at "MKT DL CP CARB".

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M2F and M3F (articulated Hi Bi/Tri-Levels) must not be operated on any Branch Line or on any of the following locations:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Carlsbad Subdivision—Mines Jct. to Carlsbad
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Laurel Subdivision
- Lester Subdivision
- Longview Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Scenic Subdivision—(Exception: Car kinds M2F and M3F may operate on this subdivision and use only MT 2 between MP 0.15 and MP 1.11.)
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Mitchell Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kinds M2F and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7 f).

**47. Train Makeup Instructions**

If a train is determined to be out of compliance with these train makeup rules as listed in items 47 & 47(A), and the maximum authorized speed exceeds 45 MPH, the speed must immediately be reduced to 45 MPH and the train dispatcher notified. The train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**System Tonnage Restrictions:**

1. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car):
   - Any car 80 ft or longer coupled to any car 45 ft or shorter.

   Note: Item 1 does not apply to test cars BNSF 82/83 and multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars.)

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2. The following cars must not be ahead of more than 5,500 trailing tons:
   - Multi-platform spine cars, regardless of how loaded.
     - See Subdivision Specific Tonnage Restrictions below for additional multi-platform spine car tonnage instructions.
3. Trains greater than 5,500 total tons (excluding empty bulk commodity trains):
   Restricted cars must not be within the first 10 cars/ platforms

The following are restricted cars that pertain to SSI 47 System Tonnage Restrictions Item 3 and Mountain Grade Tonnage Restrictions Items 1 & 2 below:

- Any conventional car (non-multiplatform) weighing less than 45 tons.
- Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) and Wind Tower Trains with distributed power.
- Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.
  Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
- Multi-platform cars with any empty platforms. Note: All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.

4. Trains greater than 7,000 tons:
   The rear 1/4 of the train by car count must not weigh more than 1/3 of the total weight.
   Exception: This does not apply to:
   - trains made up entirely of cars weighing a minimum of 45 tons each.
   - solid loaded or solid empty unit bulk commodity trains.
   - trains made up entirely of intermodal equipment.

**Mountain Grade Tonnage Restrictions**

The following restrictions are in addition to System Tonnage Restrictions (excludes solid empty bulk commodity trains):

1. On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 2,500 trailing tons.
   - Trains greater than 2,500 tons and less than 3,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 3,000 tons or greater, restricted cars must not be within the first 15 cars/platforms.
2. On Cajon (Main 3, MP 56.6 - MP 62.8), North County Transit Coaster (MP 250 - 255), Gateway (MP 178.0 - 188.0), UPRR Mojave (MP 331.3 - MP 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5) Subdivisions, the following additional restrictions apply:
   - Trains greater than 3,500 tons and less than 4,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 4,000 tons or greater, restricted cars, automax cars weighing less than 120 tons, and autoracks weighing less than 60 tons (does not apply to DP trains consisting entirely of automax/autorack cars), must not be within the first 15 cars/platforms.
3. On Cajon (Eastward Main 3, MP 56.6 - 62.8), North County Transit Coaster (MP 250 - 255), UPRR Mojave (Eastward MP 331.3 - 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Gateway (Northward MP 178 - 188), Stampede (MP 41 - 58.5) and Scenic (Eastward MP 1694.5 - 1731.3) Subdivisions, the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 4,000 trailing tons.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 3, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

**Subdivision Specific Tonnage Restrictions**

Intermodal trains operating with multi-platform spine cars, regardless of how loaded, are subject to System Tonnage Restrictions as well as the additional restrictions below:

On the Chillicothe, Marceline, Emporia, Arkansas City, La Junta, Topeka, Panhandle, Hereford, Clovis, Gallup, Seligman, Needles, Fort Worth (between MP 365 and MP 355), Wichita Falls and Red River Valley Subdivisions, trains operating with DP may exceed 5.500 trailing tons behind multi-platform spine cars if the following conditions are met:

1. No more than 30 cars equipped with End of Car Cushioning (Autoracks and Super Reefers identified in subdivision specific timetable).
2. Trains operating with rear only DP:
   - Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.
3. For trains operating with cut-in DP:
   - Tonnage ahead of and behind the cut-in DP consist must be within 2,000-tons of each other.
   - Trains operating with DP consist cut-in and no rear DP:
     Multi-platform spine cars ahead of the cut-in DP must not be ahead of more than 11,000 trailing tons. In addition, multi-platform spine cars behind the cut-in DP must not be ahead of more than 5,500 trailing tons.
   - Trains operating with both cut-in and rear DP:
     Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.

**Exceptions**

Trains which are exempt from the above train makeup instructions will be identified on Division General Order.

UPRR trains operated on BNSF may operate in compliance with UPRR train makeup rules with the exception of distributed power train length limitations as outlined in 47(A).

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train makeup instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train makeup instructions, train is authorized to operate on BNSF at a maximum speed of 45 MPH.

**Train Length, Tonnage and TOB**

When complying with Special Instructions covering speed and other train restrictions where calculations of train length, tonnage and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

Exception:

1. The weight of isolated/inoperative locomotives is added to train trailing tonnage when determining HPT in the application of ABTH Rule 106.1 Regulating Horsepower per Ton, and

2. The weight of locomotives with isolated/inoperative dynamic brakes is also added to train trailing tonnage when determining the minimum number of dynamic brake axles where required on mountain grade subdivisions.

**Military Train**
Unit military trains containing shipments on cars with end of car-cushioning, shown on the train profile as EOC, shall have no more than a total of 80 cars in the train when operating with conventional power (head end only). Train may operate in excess of 80 cars but no more than 90 when operating with a distributed power consist, either cut-in and/or on rear of train. If train (DP or non-DP) exceeds 60 cars, speed is restricted to 45 mph.

**Loaded Coiled Steel Cars**
The maximum number of loaded coiled steel cars and GRS/G0S on any train is limited per the table below:

| Total Coil Cars in Train | Maximum # of GRS/G0S Coil Cars |
|---|---|
| 80 | 0 |
| 70 | 10 |
| 65 | 20 |
| 60 | 30 |
| 55 | 40 |
| 50 | 50 |

Additional Train Makeup Restrictions Applicable to Trains Containing Coiled Steel Cars Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft. Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP - 496.1) and Wichita Falls and UP Lufkin.

**1. Conventional Unit Coiled Steel Trains**
Conventional (non-DP) unit trains made up entirely of loaded G0S and GRS cars are limited to 30 cars total and will be operated in a 2x0 configuration.

**2. Conventional Manifest Trains Containing Coiled Steel Cars (mixed freight without distributed power)**

| Total Train Tonnage | Maximum Loaded Steel Cars with End of Car Cushioning Allowed |
|---|---|
| 4,500 tons or less | 30 |
| 4,501 - 5,500 tons | 25 |
| 5,501 - 6,500 tons | 20 |
| 6,501 - 7,500 tons | 15 |
| 7,501 - 8,500 tons | 10 |
| Greater than 8,500 tons | 0 |

When moving on conventional trains, all loaded shipments identified by car kind code G0S or GRS (includes ATSF, BN, BNSF, foreign and private equipment) must be placed within the first 20 cars of the train and be as close to the locomotives as practical. When handling more than 20 G0S or GRS loaded shipments, these cars must be placed directly behind locomotive consist.

**3. Unit Coiled Steel Train Operating with DP**

Unit trains made up entirely of loaded G0S and GRS cars are limited to 50 cars total and will be operated in a 1X2 DP configuration with dynamic brakes cut out on the trail unit of the remote DP consist. The dynamic brakes must remain cut in on the controlling DP remote unit.

**4. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with DP on Rear**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars)
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist.

**5. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with Cut In DP**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars) ahead of the cut in DP
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist
- May not have more than 15 additional cars equipped with end of car cushioning behind the cut in DP.

**Wind Tower Trains**
Wind Tower Trains containing loads and empty idler cars shall have no more than a total of 80 cars in the train. Trains exceeding 5,500 tons must operate with a single distributed power unit either cut in or on rear of train.

**47(A). Train Makeup Instructions and Locomotive Requirements Applicable to Conventional, Distributed Power and Manned Helpers**

Note: In the application of instructions below, the terms "DP and "DP remote consist(s)" refers to trains utilizing distributed power and/or manned helper consists. The term "rear end" refers to the very end of the train and "cut in" refers to placement within the train with cars on both sides. RPA refers to Rated Powered Axles and can be referenced in SSI, Locomotive Data Table, 2(B).

**1. Maximum Rated Power Axle (RPA) Limitations for Conventional, Distributed Power and Manned Helper Placement**

| Train Type | Head End | Cut In DP/ Helper | Rear end DP/ Helper |
|---|---|---|---|
| Manifest | 42 | 24 | 16 |
| Intermodal | 48 | 24 | 16 |
| Empty Bulk Commodity | 24 | 16 | 8 |
| Loaded Bulk Commodity (no empties in train) | 32 | 40 | 24 |

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**DP RPA Differential:**
Single Remote/Helper Consist- If operating with one distributed power consist either cut-in or on the rear, total RPA of head end locomotive consist must not exceed 16 RPA of the total RPA of DP/Helper locomotive remote consist. In addition, total RPA of the remote consist must not exceed 8 RPA of the head end locomotive consist.

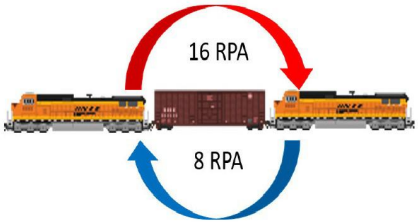



*Figure 1.*

**Multiple DP Consists**
If operating with distributed power cut-in and on the rear, individual consist RPA must not exceed 16 RPA of the next consist towards the rear of the train (Head to Mid; Mid to rear). In addition, RPA of each consist must not exceed 8 RPA of the next consist towards the head end of the train (rear to mid; mid to head end).
Exception - Does not apply to loaded bulk commodity trains.

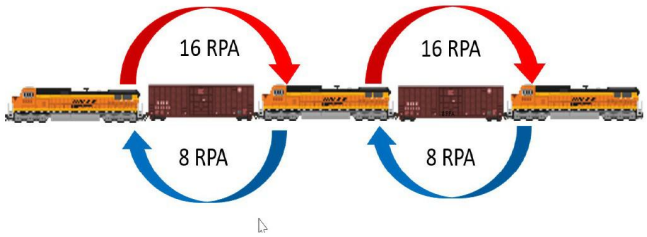



*Figure 2.*

Exception: Trains exceeding 8,000 tons operating on the heavy grade subdivisions listed below, must limit the total RPA of the head end locomotive consist to no more than 8 RPA greater than the total RPA of the DP/Helper locomotive remote consist(s).

Cajon (Main 3, MP 56.6 - MP 62.8, eastward only)
Gateway (MP 178.0 - 188.0, northward only)
Glorieta (MP 775.0 - MP 842.0)
Raton (MP 639.0 - MP 660.0)
North County Transit Coaster (NCTC) (MP 250 - 255)
Scenic (MP 1694.5 - MP 1731.3)
Stampede (MP 41.0 - MP 58.5)
UPRR Moffat Tunnel (MP 17 - 63)
UPRR Mojave (MP 331.3 - MP 381.3, southward only)
UPRR Provo (MP 626 - 685)

**2. DP Remote and ETD Placement Limitations**

| Distributed Power and ETD Length Limitations | |
|---|---|
| **Train description** | **Maximum length allowed, excluding locomotives** |
| Conventional trains and trains operating with a cut-in single DP/ helper consist not equipped with mid-train ETD repeater | 10,000 ft between lead locomotive consist and end of train device (ETD) on rear<br>Exception: Loaded vehicle trains - 8,000 ft between lead locomotive consist and ETD on rear |
| Trains operating with cut-in DP/ helper consist (mid-train ETD repeater) with 2-way ETD | 16,000 ft between lead consist and ETD |
| Solid intermodal trains containing no autoracks operating with a single DP remote consist on rear | 12,000 ft between lead consist and remote DP consist (Lead locomotive and DP remote must be LXA equipped) |
| Solid intermodal (without LXA), manifest, or bulk commodity trains operating with a single DP remote consist on rear | 10,000 ft between lead consist and remote DP consist |
| Train of any type operating with two DP remote consists, cut in and on rear of train | 16,000 ft between lead consist and rear remote DP consist |

Placement instructions for Cut in/Helper DP Consists:

a. One DP Remote Consist

A single DP remote consist cut into the train must not have the cut in DP consist further than 10,000 feet from the head end of train (excluding locomotive length). Single DP consists cut into the train exceeding 8 RPA must be cut in at 300 tons per axle exceeding 8 RPA, but no closer to the head end than 20 cars forward of mid-train, by car count, as long as train makeup requirements next to DP remote consist outlined below in Item 47(A) 3 and 4 are met.

Exception: The requirement to cut in at 300 tons per axle exceeding 8 RPA does not apply to solid intermodal trains, trains with solid intermodal equipment behind cut in DP/Helper consist or trains with loaded bulk commodity cars ahead of cut in DP/Helper consist. On solid intermodal trains, the DP remote consist must be cut in no closer than 1000 feet forward of mid train by length, as long as train makeup requirements next to DP remote consist outlined below in item 47(A) 3 and 4 are met.

b. Two DP Remote Consists

When two DP remote consists are used, they must be positioned with one DP remote consist cut into the train, and one DP remote consist at the rear end. The cut in DP remote consist must not be cut in further than 10,000 feet from the head end of train (excluding locomotive length) and must not be closer to the head end than 20 cars forward of mid-train, by car count.

Exception: Solid intermodal trains operating with two DP remote consists must not have the cut in DP remote consist further than 10,000 feet from the head end of train (excludes locomotive lengths) and must not be closer to the head end than 1,000 feet forward of mid-train, by length.

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### 3. System Distributed Power and Manned Helper Train Makeup Restrictions

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | | Restricted Cars |
|---|---|---|
| **Cut In DP/ Helper, any RPA** | **Rear end DP/ Helper, any RPA** | |
| Must be at rear of train behind any rear end DP/helper consist | | Cars indicated as rear end only. |
| | | AMGX 2-unit solid drawbar connected gondolas |
| | | Occupied caboose |
| **Cut In DP/Helper 9 - 24 RPA** | **Rear end DP/Helper 9 - 16 RPA** | |
| Restricted cars listed must not be within **5 cars or platforms/ wells** ahead of or behind cut in consist.<br>Exception: Does not apply to empty bulk commodity/ combination trains, trains with only baretable equipment behind the cut in DP or to loaded single well double stack cars of any weight (car kind beginning with QU or QK). | Restricted cars listed must not be within **10 cars or platforms/wells** ahead of consist on rear end. | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | | Any conventional car (non-multiplatform) weighing less than 45 tons. Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) |
| | | Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/ container on either segment/ platform. |
| | | Empty platforms/wells of a multiplatform car. All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not. |

### 4. Additional Train Makeup Restrictions Applicable to DP Trains Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP 496.1), Wichita Falls and UPRR Lufkin Subdivisions.

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | Restricted Cars |
|---|---|
| **Cut In DP/Helper or rear end DP/Helper up to 8 RPA** | |
| Restricted cars listed must not be placed within **5 cars or platforms/wells** of DP/Helper consist. (cut in and/or on rear end) | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform. |
| **Cut In or Rear End DP/Helper consist of 9 – 24 RPA** (Does not apply to trains with 2, single-locomotive DP remotes) | |
| Restricted cars listed must not be placed **within 10 cars/ platforms of lead consist and remote consist(s)** | Any conventional car (non-multiplatform weighing less than 45 tons. Exception: Does not apply to empty bulk commodity/ combination trains operating with cut in DP consists or loaded single well double stack cars of any weight (car kind beginning with QU or QK). |
| Restricted cars listed **must not be placed between lead consist and remote consist(s)** | Intermodal equipment other than double stack and autoracks, regardless of how loaded. (Conventional intermodal flat cars, spine cars - car kind QM, QC, QO, Q5 and QE and twin flats - car kinds FM, QB, QD and QL.) |
| | No more than 30 cars with end of car cushioning ahead of any individual consist of 9 RPA or greater. (Does not apply to solid intermodal and solid loaded bulk commodity unit trains with cars equipped with end of car cushioning.) |

### 5. Limiting Tractive Effort When Using Manned Helpers with Trains Not in Compliance with Train Makeup Guidelines:

Conventional trains may be helped from the rear of train with a manned helper only (DP may not be used) when exceeding axle limitation guidelines above if train is disabled and not in compliance with train makeup restrictions for DP/Helper service as outlined above. Tractive effort limit when exceeding 8 rated powered axles and helping trains not in compliance with DP/Helper train makeup guidelines as follows:

**Manned Helper Controlling Locomotive with Amperage Displayed:**
8 rated powered axles - no restriction
10 rated powered axles - 1,000 amps
12 rated powered axles - 950 amps
14 rated powered axles - 900 amps
16 rated powered axles - 850 amps

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**Manned Helper Controlling Locomotive with Tractive Effort Displayed:**

Limit total tractive effort of AC consist to 100,000 lbs. Total AC locomotive consist tractive effort is determined by multiplying tractive effort indicated on display of controlling locomotive and multiplying by the total number of operative AC locomotives in the consist.

Example: A controlling unit of a two-unit AC locomotive consist should not be allowed to produce more than 50,000 lbs. of tractive effort.

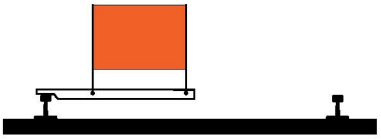
**48. Operations Testing**

BNSF will use the following banners as stop indications when operations testing for compliance where train, engine or on-track equipment movements are required to stop short of the items listed in operating rules GCOR 6.22 (excludes Banner #3), 6.27, 6.28 and MWOR 6.27, 6.28, 6.50:

1. A high visibility red/orange Stop/Obstruction banner displayed square on point to simulate on-track equipment.




2. A high visibility red/orange Stop banner, square or rectangular in shape and approximately 18 by 18 inches in size.



Banner 1 or 2 may be used on any track (main, controlled siding, yard, industry, etc.) for movements governed by GCOR/MWOR 6.27 Restricted Speed, GCOR/MWOR 6.28 Movement on Other Than Main Track, GCOR 6.22 Maintaining Control of Train or Engine (stopping 400 feet short of banners is applicable on a Main Track or controlled siding only), or MWOR 6.50 Movement of On-Track Equipment. These banners will be placed between the rails of the track, and simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banner.

3. Banner 3 may only be used on yard or industry tracks governed by GCOR/MWOR 6.28. Do not use on switches equipped with switch point indicators (GCOR 8.10) or sidings in TWC territory to simulate a switch or derail lined improperly.



High visibility red/orange with horizontal yellow bar Switch Point/Derail Location Stop banners, square or rectangular in shape and approximately 5 inches by 6 inches. These banners may only be used at existing switch point or derail locations, with one banner placed on each rail directly across from one another, to simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banners.

**49. Responsibilities and Certification**

**Engineers**

In the application of the following guidelines, the term "engineer" applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

Before beginning each shift or tour of duty, all engineers must ensure their CFR Part 240 certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before operating a locomotive.

**1. General Responsibilities**

Engineers are responsible for and must maintain their certification.

a. Engineers must be certified in the appropriate class of service to operate a locomotive.
b. Engineers must certify according to federal regulations (49 CFR Part 240) and BNSF Railway certification requirements and programs.
c. Engineers must have their CFR Part 240 electronic certificate accessible, displaying the correct class of service on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.
d. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Engineers must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.
e. Engineers and Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.

     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, engineer must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.
f. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.

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Changes must be reported when:

1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement
2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meets the minimum requirements without any corrective device.

The minimum hearing and vision requirements are:

1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels
2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Engineer Certification Requirements for Operating Locomotives**

Certified engineers may operate locomotives under the following conditions:

a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.

b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hostling purposes.

c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.

d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Before operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.

e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
Note: An RCO Operator must have a minimum of 30 tours of duty as a Certified Remote Control Operator before training a student.

f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed before October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

**3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment**

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency,
- Route familiarization, and
- Special or unique equipment.

**a. Skills Proficiency**

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception: The period is extended to 12 months for RCO if they are also certified as a train service engineer.

**b. Route Familiarization**

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six months:

Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions.

Train service engineers assigned to new routes or who become unqualified on current assigned routes are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or requalify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train service engineer to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

**4. Special Equipment Proficiency**

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment. A certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

**5. Route Familiarization Pilots**

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

a. Train Service Engineers:
   1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
   2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

b. Remote Control Operators:
   1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
   2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Conductors**

In the application of the following guidelines, the term"conductor" applies to a crew member in charge of a train or yard crew and passenger conductor who has received emergency preparedness training.

Before beginning each shift or tour of duty, all conductors must ensure their CFR Part 242 electronic certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before performing service as a conductor.

**1. General Responsibilities (applies to any person with certification as a Conductor)**

Any person certified as a Conductor is responsible for and must maintain their certification.

a. Conductors must certify according to federal regulations (49 CFR Part 242) and BNSF Railway certification requirements and programs.

b. Conductors must have their CFR Part 242 electronic certificate accessible on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.

c. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Conductors must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.

d. Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction.
   The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.
     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, conductor must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.

e. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.
   Changes must be reported when:
   1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement.
   2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meet the minimum requirements without any corrective device.

   The minimum hearing and vision requirements are:
   1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels

2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Maintaining Conductor Route Familiarization**

Certified employees must maintain proficiency as a conductor as it pertains to route familiarization.

**Route Familiarization**
Route familiarization is required in order to perform service as a certified conductor without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by local supervisor, route familiarization is maintained by observing the route biennially based on the calendar year when performing service in any capacity (engineer or trainman). If the route has not been observed once in a 24 month period, qualification will expire at the end of the calendar year. Other methods of maintaining route familiarization may also be available as specified by local supervisor.

Conductors assigned to new routes or who become unqualified on current assigned routes are required to contact their local supervisor who will advise the number of trips required to qualify or re-qualify on that route. If and when a conductor is qualified at the completion of these trips, a supervisor will then authorize the conductor to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does not include a section of main track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**3. Route Familiarization Pilots**

Employees will be assisted by a pilot if called to perform service as a conductor on a route lacking territory qualification:

a. When a conductor lacks Main Track territory qualification, the pilot must be a certified employee and meets the territory qualification requirements for the Main Track physical characteristics and is not an assigned member of the crew.
b. When a conductor was previously qualified on the Main Track, but qualifications have expired, the pilot can be an assigned member of the crew, other than the locomotive engineer who meets the territorial qualification requirement for Main Track physical characteristics.

If a conductor is called and lacks territorial qualification on other than Main Track and the assistance of a certified employee pilot is not practicable, the conductor must reference an appropriate job aid to satisfy this requirement.

**50. Rail Security Sensitive Material (RSSM) Instructions**

**Chain of Custody Documentation for Rail Security Sensitive Material**

When RSSM shipments in BNSF custody are set out enroute due to mechanical defect, the Resource Operations Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3, who will arrange for attendance. The PBX/MRAS radio system may be used for this communication.

Federal regulations require Chain of Custody documentation for Rail Security Sensitive Material (RSSM) in the cases described below.

Rail Security-Sensitive Material (RSSM) includes a shipment of one or more of the categories and quantities listed below:

1. Rail car containing more than 5,000 lbs (2,268 kg) of a Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous by inhalation, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation, and Division 6.1 liquids assigned to hazard zone A or hazard zone B.
3. Rail car containing a highway route-controlled Class 7 (radioactive) material.

These materials are identified with the Special Car Handling Code “RC”, Restricted Commodity , and /or “RSSM HAZMAT” in the starred box that identifies hazmat shipments.

Except at locations identified by Division General Order, employees must execute and document Positive Transfers of Custody any time a loaded rail car identified by SCHI code “RC” is:

1. Pulled from or spotted to an industry
2. Delivered or received in interchange

Employees can make a positive transfer of custody when:

1. Physically located on site in reasonable proximity to the rail car.
2. Capable of responding to unauthorized access or activity at or near the rail car, including immediately contacting law enforcement or other authorities.
3. They immediately respond to unauthorized access or activity at or near the rail car by contacting law enforcement or other authorities.

This requirement applies both to BNSF employees and representatives of shippers, consignees, and interchange carriers making positive transfers of custody. A positive transfer of custody can take place only if representatives of both companies are present.

When a representative of an interchange carrier is not available where required, “RC” shipments must not be delivered, but may be received if proper paperwork can be obtained per Hazardous Material Instructions Item II. Contact a supervisor for disposition of “RC” shipments when a representative is not available to accept delivery.

If an RSSM shipment is delivered by connecting carrier and left on the interchange transfer unattended, transfer of custody information must show connecting carrier employee’s name as “unattended”.

Any car identified an RSSM shipment will require “Chain of Custody” documentation. Empty “residue” cars will not be identified with this code.

BNSF employees must confer with the customer or interchange road representative to ensure both of their documentation records contain the same information. The chain of custody documentation must include the following:

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1. The first six digits of the employee's ID (e.g. b123456)
2. The date and time of the actual custody transfer.
3. The station at which the "RC" cars are transferred.
4. The person's first and last name to or from whom custody is being transferred.
5. The car initials and numbers.

Completing the chain of custody documentation:

1. TSS, TSS Xpress, or Mobile Train Reporting (MTR) are the preferred methods for documentation.
2. Utilize the Chain of Custody Form on the back of the GTB or work order when TSS, TSS Xpress, or MTR is not available due to work performed on line.
   a. When documenting a written chain of custody, employees must enter the information in TSS or TSS Xpress when access to a computer system becomes available.
   b. If a computer system is not available, utilize the FAX number at top of printed chain of custody form.
   c. Hours of service employees must complete the chain of custody documentation before expiring from duty under the hours of service.
   d. When documenting the chain of custody in printed form, employees must deliver the chain of custody documentation to a relief crew or supervisor for entry in to the system via TSS, TSS Xpress, or fax prior to the completion of the tour of duty when possible. This delivery must also be documented on the chain of custody form.
   e. When not possible to deliver the printed chain of custody documentation to a relief crew or supervisor prior to completion of the tour of duty, employees must enter the chain of custody documentation into the system via TSS, TSS Xpress, or fax when returning for next tour of duty.

Chain of custody procedures when receiving an "RC" freight car in interchange:

1. Loaded "RC" freight cars entering a yard from a foreign carrier must be recorded by the BNSF employee assuming responsibility to receive the "RC" car.
2. Employees should use the new TSS or TSS Xpress function "CUSTODY" to record the person's name from which custody is received along with the date and time of custody interchange. If an advance waybill list is not available, documentation must be done on printed format and entered into TSS or TSS Xpress when available.
3. Division Management will identify the point of contact for acceptance of interchange at each location.
4. A visual security inspection must take place with these cars when practical and must take place before departure from the interchange point. This is typically done during normal freight car safety inspections that are currently performed.

**Locations of High Threat Urban Area (HTUA)**

The following BNSF locations have been designated as HTUAs.

| | | |
|---|---|---|
| Anaheim | Kansas City | Riverside, CA |
| Bakersfield, CA | Los Angeles | San Antonio |
| Bay Area | Memphis | Sacramento |
| Chicago | New Orleans | San Diego |
| Dallas/Ft Worth | Oklahoma City | Seattle |
| Denver | Omaha | St Louis |
| El Paso | Phoenix | Tulsa |
| Houston | Portland | Twin Cities |

HTUA and associated boundaries will be identified by Division General Order.

**Attendance Requirements**

Shipments identified as "RSSM" must be attended at all times while inside an HTUA. RSSM shipments inside an HTUA are considered attended when:

- Located at an industry, when plant personnel have accepted chain of custody.
- Located in a yard which is staffed 24 hours per day.
  - Employees in the yard must be able to routinely view cars physically or by camera.
  - Employees designated as responsible for RSSM cars will be identified by Division General Order and must be able to respond to unauthorized access or activity by contacting law enforcement or other authorities.
- Located within a train with an on-duty crew, authorized employee or representative physically present.

Exceptions to above requirement will be identified by Division General Order.

Employees designated by Division General Order as responsible for location of RSSM cars inside HTUA are required to:

- Contact law enforcement or other authorities to report unauthorized access to RSSM cars.
- Know the placards and designations used to identify RSSM shipments.

Employees responsible for handling RSSM cars within the HTUA are required to:

- Know the contact information outlined by Division General Order for BNSF personnel who are responsible for location of cars within HTUA.
- Know the placards and designations used to identify RSSM shipments.

Note: BNSF Crews operating on foreign railroads must comply with these attendance requirements unless otherwise specified by the foreign railroad's instructions.

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**Appendix A - Track Flagging Examples**

The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by rule.

Yellow and yellow-red flags will be displayed on all main tracks and sidings leading to the track affected. Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In multiple Main Track territory, when a restriction is placed on a crossover, or in single Main Track territory when a restriction is placed on a turnout not affecting the Main Track, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

In situations in multiple Main Track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.

## Single Main Track

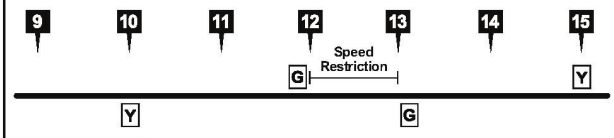



Diagram 1.

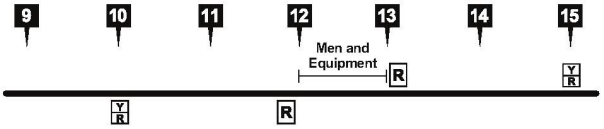



Diagram 2.

## Display of Green Flags with Overlapping Yellow Flags

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

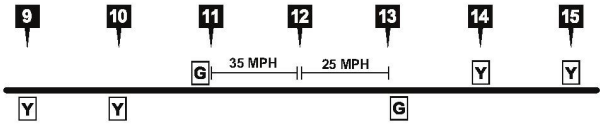



Diagram 3.

## Single Main Track (Sidings at the 2-mile point)

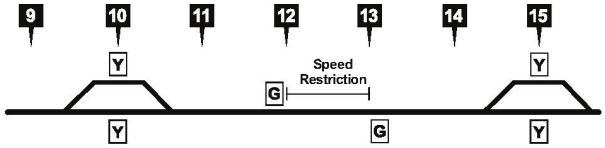



Diagram 4.

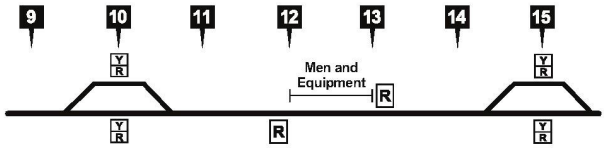



Diagram 5.

## Restriction on Siding

Speed restrictions on sidings will be short flagged. Location of short flag must be indicated in track bulletin or track warrant.

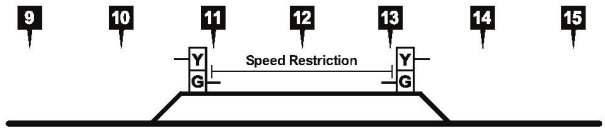



Diagram 6.

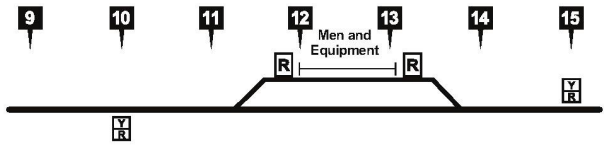



Diagram 7.

Train crews would determine the track affected by the information contained in their track bulletin.

## Speed Restriction on Main Track Where Siding is Adjacent

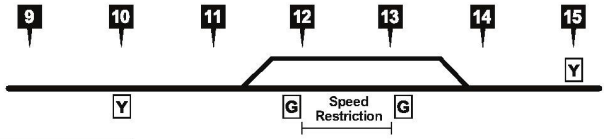



Diagram 8.

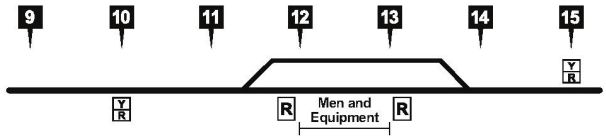



Diagram 9.

Train crews would determine the track affected by the information contained in their track bulletin.

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## Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance

Location of short flag must be indicated in track bulletin or track warrant.

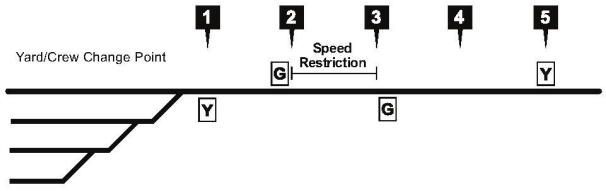



Diagram 10.

## When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

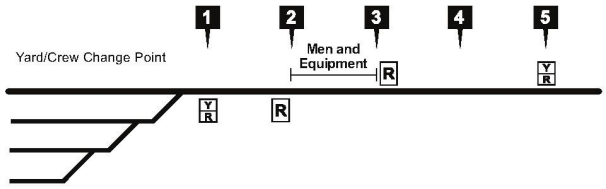



Diagram 11.

## Speed Restriction at Foreign Line Junction

Location of short flag must be indicated in track bulletin or track warrant.

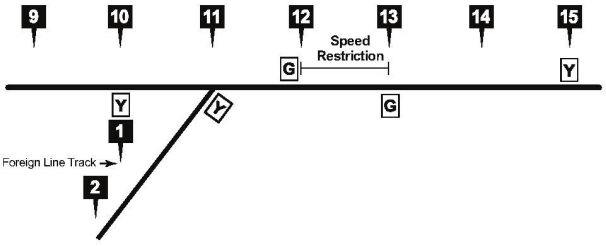



Diagram 12.

## Foreign Line junction Near Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

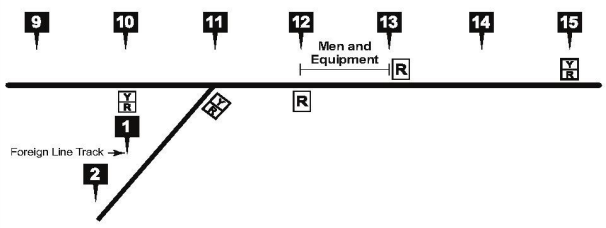



Diagram 13.

## Speed Restriction at BNSF Junction

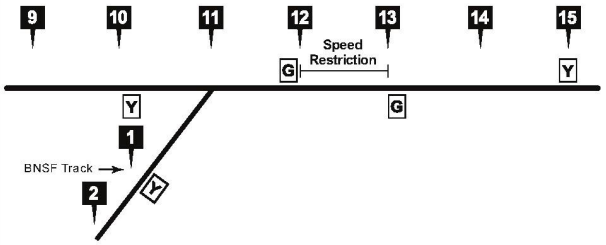



Diagram 14.

## BNSF Junction Near Men and Equipment

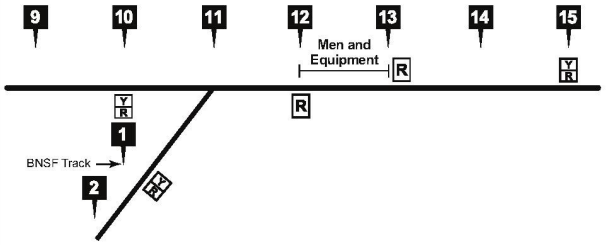



Diagram 15.

## Men and Equipment with Junction and Intervening Switch

Red flags at the limits of Form B and Main Track junctions within the limits.

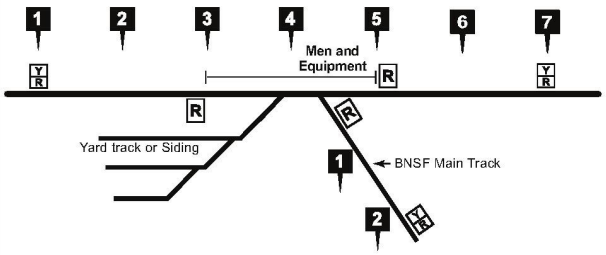



Diagram 16.

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## Speed Restriction Just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

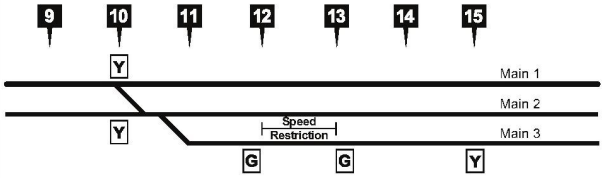



Diagram 17.

## Men and Equipment just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

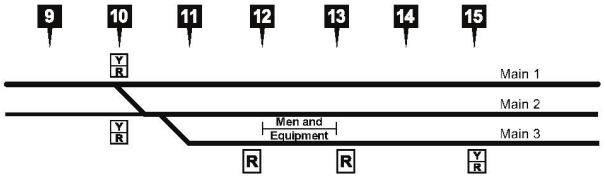



Diagram 18.

## Speed Restriction Just Beyond Turnout to Main 1

Train crews would determine the track affected by the information contained in their track bulletin.

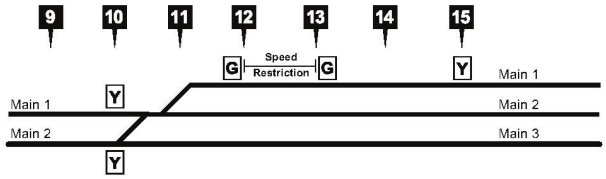



Diagram 19.

## Men and Equipment Just Beyond Turnout to Main 1

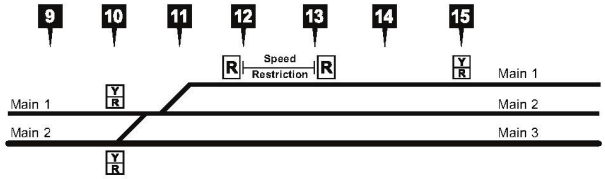



Diagram 20.

## Speed Restriction on Multiple Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

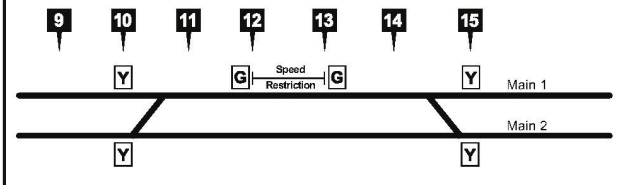



Diagram 21.

## Men and Equipment on Multiple Main Track

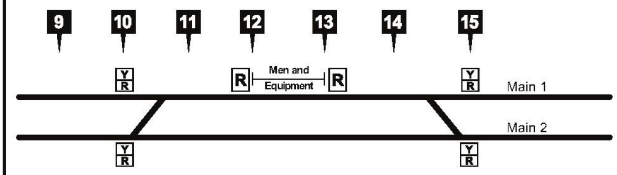



Diagram 22.

## Speed Restriction on Main 1 (CTC Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.

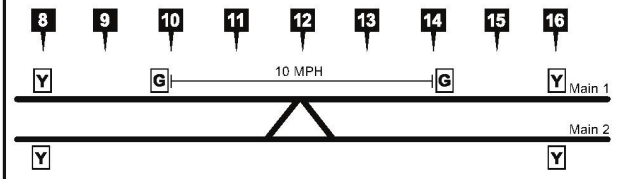



Diagram 23.

## Speed Restriction on Main 1 (CTC and ABS Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.

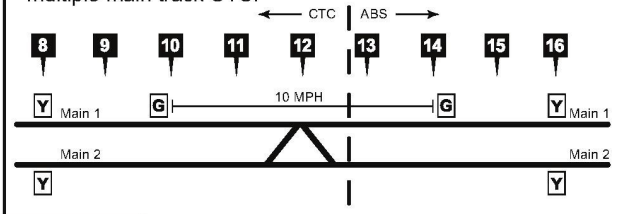



Diagram 24.

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.

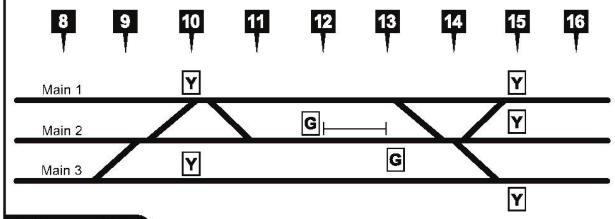



Diagram 25.

**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**

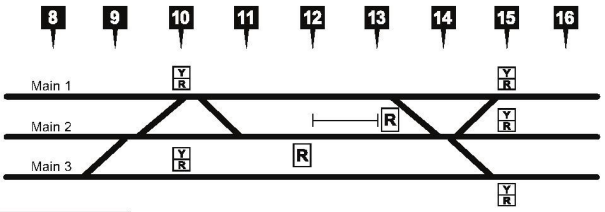
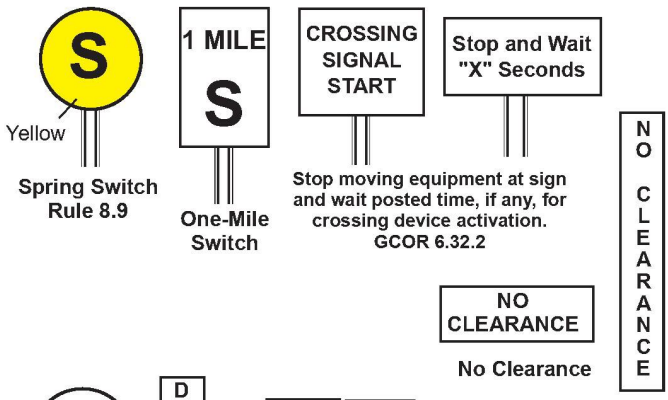
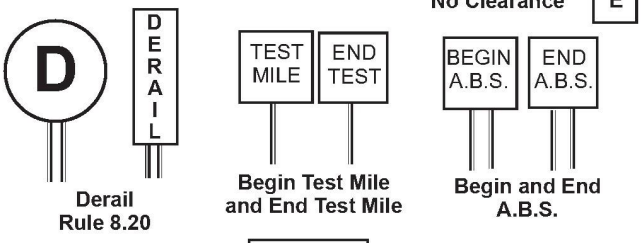



Diagram 26.

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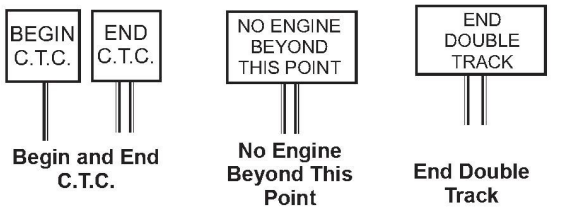
Appendix B - Roadway Signs

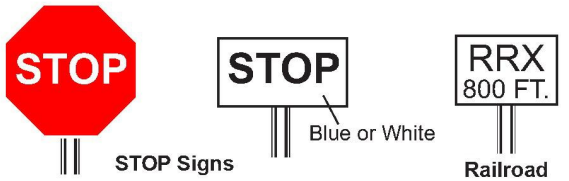


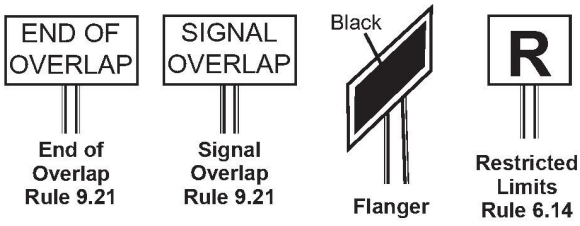



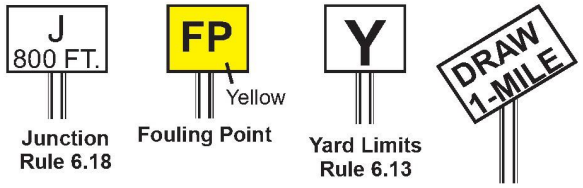


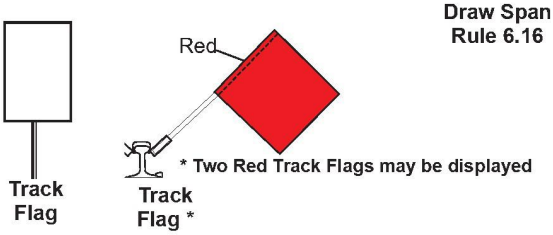




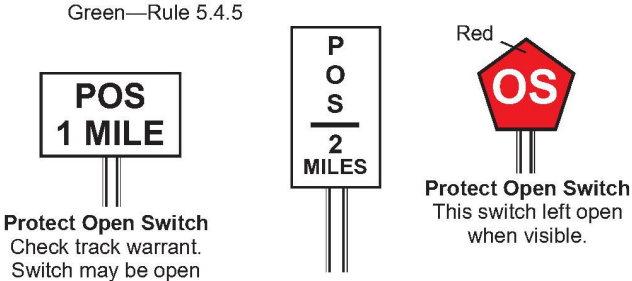



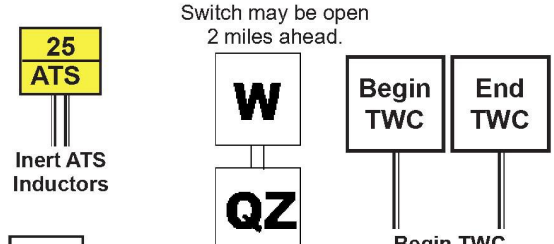



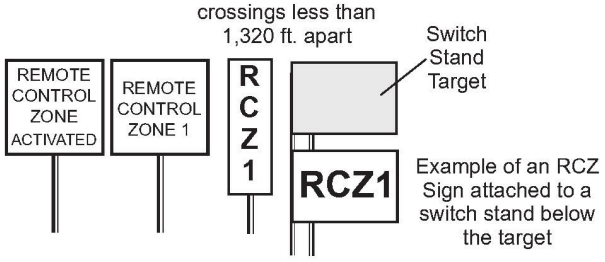




Yellow—Rule 5.4.2
Yellow-Red—Rule 5.4.3
Red—Rule 5.4.7
Green—Rule 5.4.5



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**Appendix C - Division/Subdivision Index**

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| | Brookfield |
| | Chicago |
| | Chillicothe |
| | Des Moines |
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| Heartland | Afton |
| | Amory |
| | Bayard |
| | Bellwod |
| | Birmingham |
| | Cherokee |
| | Council Bluffs |
| | Creston |
| | Cuba |
| | Fort Scott |
| | Giltner |
| | Hannibal |
| | Napier |
| | Omaha |
| | Ravenna |
| | River |
| | St. Joseph |
| | Thayer North |
| | Thayer South |
| Kansas | Arkansas City |
| | Boise City |
| | Dalhart |
| | Douglass |
| | Emporia |
| | Hereford |
| | La Junta |
| | Panhandle |
| | Raton |
| | Strong City |
| | Topeka |
| | Twin Peaks |
| Montana | Big Sandy |
| | Broadview |
| | Choteau |
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| | Crosby |
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| | Great Falls |
| | Grenora |
| | Helena |
| | Hettinger |
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| | Kootenai River |
| | Laurel |
| | Lewistown |
| | Milk River |
| | Mobridge |
| | Niobe |
| | Sarpy Line |
| | Scobey |
| | Sidney Line |
| | Sweet Grass |
| | Valier |
| Northwest | Bellingham |
| | Cherry Point |
| | Coeur d'Alene |
| | Columbia River |
| | Fallbridge |
| | Gateway |
| | Kettle Falls |
| | Lakeside |
| | New Westminster |
| | Oregon Trunk |
| | Scenic |
| | Seattle |
| | Spokane |
| | Stampede |
| | Sumas |
| | Yakima Valley |
| Powder River | Akron |
| | Angora |
| | Beatrice |
| | Big Horn |
| | Black Hills |
| | Brush |
| | Butte |
| | Campbell |
| | Canyon |
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| | Golden |
| | Hastings |
| | Lester |
| | Orin |
| | Pikes Peak |
| | Pueblo |
| | Sand Hills |
| | Spanish Peaks |
| | Valley |
| | Wymore |
| Red River | Avard |
| | Bay City |
| | BBRX |
| | Chickasha |
| | Conroe |
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| | DFW |
| | Ft. Worth |
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| | Madill |
| | Mykawa |
| | Plainview |
| | Red River Valley |
| | Red Rock |
| | Silsbee |
| | Slaton |
| | Sooner |
| | Venus |
| | Wichita Falls |
| Southwest | Carlsbad |
| | Clovis |
| | Coronado |
| | Defiance |
| | El Paso |
| | Gallup |
| | Glorieta |
| | Lee Ranch |
| | Mines |
| | Phoenix |
| | Seligman |
| | Springerville |
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| | Appleton |
| | Brainerd |
| | Browns Valley |
| | Canton |
| | Casco |
| | Corson |
| | Devils Lake |
| | Drayton |
| | Glasston |
| | Grand Forks |
| | Hanley Falls |
| | Hannah |
| | Hib Tac |
| | Hillsboro |
| | Hinckley |
| | Jamestown |
| | KO |
| | Lakes |
| | Madison |
| | Marshall |
| | Mayville |
| | Midway |
| | Mitchell |
| | Monticello |
| | Moorhead |
| | Morris |
| | Noyes |
| | O'Neill |
| | Prosper |
| | Rolla |
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| Appleton | Twin Cities |
| Arkansas City | Kansas |
| Aurora | Chicago |
| Avard | Red River |
| Bakersfield | California |
| Barstow | Chicago |
| Bay City | Red River |
| Bayard | Heartland |
| BBRX | Red River |
| Beardstown | Chicago |
| Beatrice | Powder River |
| Bellingham | Northwest |
| Bellwood | Heartland |
| Big Horn | Powder River |
| Big Sandy | Montana |
| Birmingham | Heartland |
| Black Hills | Powder River |
| Boise City | Kansas |
| Brainerd | Twin Cities |
| Broadview | Montana |
| Brookfield | Chicago |
| Browns Valley | Twin Cities |
| Brush | Powder River |
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| Campbell | Powder River |
| Canton | Twin Cities |
| Canyon | Powder River |
| Carlsbad | Southwest |
| Casco | Twin Cities |
| Casper | Powder River |
| Cherokee | Heartland |
| Cherry Point | Northwest |
| Chicago | Chicago |
| Chickasha | Red River |
| Chillicothe | Chicago |
| Choteau | Montana |
| Circle | Montana |
| Clovis | Southwest |
| Cody | Powder River |
| Coeur d'Alene | Northwest |
| Colstrip | Montana |
| Columbia River | Northwest |
| Conroe | Red River |
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| Drayton | Twin Cities |
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| Fort Scott | Heartland |
| Front Range | Powder River |
| Ft. Benton | Montana |
| Ft. Worth | Red River |
| Gallup | Southwest |
| Galveston | Red River |
| Gateway | Northwest |
| Giltner | Heartland |
| Glasgow | Montana |
| Glasston | Twin Cities |
| Glorieta | Southwest |
| Golden | Powder River |
| Grand Forks | Twin Cities |
| Great Falls | Montana |
| Grenora | Montana |
| Hanley Falls | Twin Cities |
| Hannah | Twin Cities |
| Hannibal | Heartland |
| Harbor | California |
| Hastings | Powder River |
| Helena | Montana |
| Hereford | Kansas |
| Hettinger | Montana |
| Hi Line | Montana |
| Hib Tac | Twin Cities |
| Hillsboro | Twin Cities |
| Hinckley | Twin Cities |
| Houston | Red River |
| Jamestown | Twin Cities |
| Kettle Falls | Northwest |
| KO | Twin Cities |
| Kootenai River | Montana |
| La Junta | Kansas |
| Lafayette | Red River |
| Lakes | Twin Cities |
| Lakeside | Northwest |
| Lampasas | Red River |
| Laurel | Montana |
| Lee Ranch | Southwest |
| Lester | Powder River |
| Lewistown | Montana |
| Longview | Red River |
| Lucerne Valley | California |
| Madill | Red River |
| Madison | Twin Cities |
| Marceline | Chicago |
| Marshall | Twin Cities |
| Mayville | Twin Cities |
| Mendota | Chicago |
| Midway | Twin Cities |
| Milk River | Montana |
| Mines | Southwest |
| Mitchell | Twin Cities |
| Mobridge | Montana |
| Mojave | California |
| Monticello | Twin Cities |
| Moorhead | Twin Cities |
| Morris | Twin Cities |
| Mykawa | Red River |
| Napier | Heartland |
| Needles | California |
| New Westminster | Northwest |
| Niobe | Montana |
| Noyes | Twin Cities |
| Omaha | Heartland |
| O'Neill | Twin Cities |
| Oregon Trunk | Northwest |
| Orin | Powder River |
| Ottumwa | Chicago |
| Panhandle | Kansas |
| Peoria | Chicago |
| Phoenix | Southwest |
| Pikes Peak | Powder River |
| Plainview | Red River |
| Prosper | Twin Cities |
| Pueblo | Powder River |
| Raton | Kansas |
| Ravenna | Heartland |
| Red River Valley | Red River |
| Red Rock | Red River |
| River | Heartland |
| Rolla | Twin Cities |
| San Bernardino | California |
| San Diego | California |
| Sand Hills | Powder River |
| Sarpy Line | Montana |
| Scenic | Northwest |
| Scobey | Montana |
| Seattle | Northwest |
| Seligman | Southwest |
| Sidney Line | Montana |
| Silsbee | Red River |
| Sioux City | Twin Cities |
| Slaton | Red River |
| Sooner | Red River |
| Spanish Peaks | Powder River |
| Spokane | Northwest |
| Springerville | Southwest |
| St. Croix | Chicago |
| St. Joseph | Heartland |
| St. Paul | Twin Cities |
| Stampede | Northwest |
| Staples | Twin Cities |
| Stockton | California |
| Strong City | Kansas |
| Sumas | Northwest |
| Sweet Grass | Montana |
| Thayer North | Heartland |
| Thayer South | Heartland |
| Thomas Hill | Chicago |
| Topeka | Kansas |
| Twin Peaks | Kansas |
| Valier | Montana |
| Valley | Powder River |
| Venus | Red River |
| Warwick | Twin Cities |
| Watertown | Twin Cities |
| Wayzata | Twin Cities |
| Westhope | Twin Cities |
| Wichita Falls | Red River |
| Wymore | Powder River |
| Yakima Valley | Northwest |
| Yates City | Chicago |
| Zap Line | Twin Cities |

# Reference Information

**Speed Tables**

| SPEED TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour |
| Min. | Sec. | | Min. | Sec. | | Min. | Sec. | |
| - | 36 | 100 | - | 58 | 62.1 | 1 | 40 | 36.0 |
| - | 37 | 97.3 | - | 59 | 61.0 | 1 | 42 | 35.3 |
| - | 38 | 94.7 | 1 | - | 60.0 | 1 | 44 | 34.6 |
| - | 39 | 92.3 | 1 | 02 | 58.0 | 1 | 46 | 34.0 |
| - | 40 | 90.0 | 1 | 04 | 56.2 | 1 | 48 | 33.3 |
| - | 41 | 87.8 | 1 | 06 | 54.5 | 1 | 50 | 32.7 |
| - | 42 | 85.7 | 1 | 08 | 52.9 | 1 | 52 | 32.1 |
| - | 43 | 83.7 | 1 | 10 | 51.4 | 1 | 54 | 31.6 |
| - | 44 | 81.8 | 1 | 12 | 50.0 | 1 | 56 | 31.0 |
| - | 45 | 80.0 | 1 | 14 | 48.6 | 1 | 58 | 30.5 |
| - | 46 | 78.3 | 1 | 16 | 47.4 | 2 | - | 30.0 |
| - | 47 | 76.6 | 1 | 18 | 46.1 | 2 | 05 | 28.8 |
| - | 48 | 75.0 | 1 | 20 | 45.0 | 2 | 10 | 27.7 |
| - | 49 | 73.5 | 1 | 22 | 43.9 | 2 | 15 | 26.7 |
| - | 50 | 72.0 | 1 | 24 | 42.9 | 2 | 30 | 24.0 |
| - | 51 | 70.6 | 1 | 26 | 41.9 | 2 | 45 | 21.8 |
| - | 52 | 69.2 | 1 | 28 | 40.9 | 3 | - | 20.0 |
| - | 53 | 67.9 | 1 | 30 | 40.0 | 3 | 30 | 17.1 |
| - | 54 | 66.6 | 1 | 32 | 39.1 | 4 | - | 15.0 |
| - | 55 | 65.5 | 1 | 34 | 38.3 | 5 | - | 12.0 |
| - | 56 | 64.2 | 1 | 36 | 37.5 | 6 | - | 10.0 |
| - | 57 | 63.2 | 1 | 38 | 36.8 | 12 | - | 5.0 |

| FEET | TENTHS OF A MILE |
|---|---|
| 528 | .1 |
| 1,056 | .2 |
| 1,584 | .3 |
| 2,112 | .4 |
| 2,640 | .5 |
| 3,168 | .6 |
| 3,696 | .7 |
| 4,224 | .8 |
| 4,752 | .9 |

## TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

To assist in determinig where to start sounding the whistle as described in Whistle Signal 7, use the following:
At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

| Train Speed | Delay to Sound Whistle |
|---|---|
| 40 MPH | 3 seconds |
| 35 MPH | 6 seconds |
| 30 MPH | 10 seconds |
| 25 MPH | 16 seconds |
| 20 MPH | 25 seconds |
| 15 MPH | 40 seconds |
| 10 MPH | 1 minute 10 seconds |

## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

This version contains the following updated and added pages:
**August 4, 2021:** 23.
**September 1, 2021:** 44.
**October 1, 2021:** 54, 55, 56, 57.
**November 4, 2021:** 10.
**November 11, 2021:** 53.
**December 1, 2021:** 14.
**January 1, 2022:** Title page, 15, 16, 17, 17a(added), 17b(added), 18, 19, 34, 35, 36, 41, 50, 51.

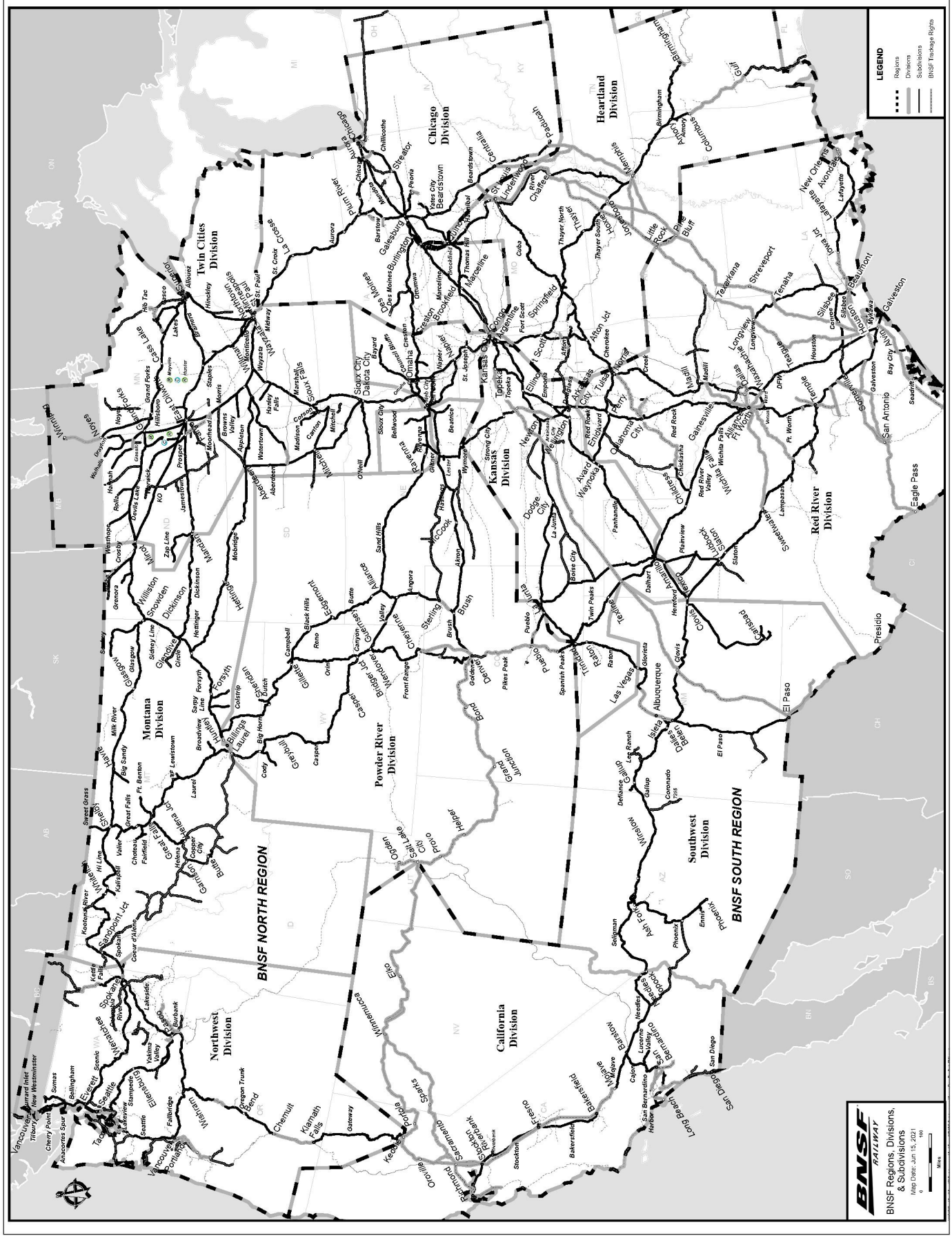
BNSF RAILWAY

# System Special Instructions

## All Subdivisions No. 2

In Effect at 0800
Central, Mountain and Pacific
Continental Time
**August 4, 2021**
(Including updates through
January 1, 2022)

TOC Home


LEGEND
Regions
Divisions
Subdivisions
BNSF Trackage Rights
BNSF NORTH REGION
BNSF SOUTH REGION
Northwest Division
Montana Division
Twin Cities Division
Powder River Division
Chicago Division
Heartland Division
Kansas Division
Red River Division
Southwest Division
California Division
BNSF RAILWAY
BNSF Regions, Divisions, & Subdivisions
Map Date: Jun 15, 2021
Miles

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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In timetable individual subdivision special instructions, the number at the bottom of the station table column entitled "Miles to Next Station" denotes total miles on the subdivision.

## 1. Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars. Refer to 1(B) regarding maximum authorized speed of engines (locomotives).

Amtrak trains operating in Cascade service may observe Talgo speeds. The consist must be entirely Horizon and/ or Amfleet Single Level Passenger Equipment. If the PTC Onboard Consist does not reflect the correct train type, crews may modify their consist to "Tilt" Train Type.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

| | MPH |
|---|---|
| Freight trains under 100 TOB | 60 |
| Freight trains 100 TOB and over | 45 |
| Freight trains handling empty cars | 55 |
| Exception: Intermodal Equipment, see SSI 1(C) | |
| Empty coal trains (if train list indicates no speed restricted equipment) | 60 |
| Key trains | 50 |
| Solid consist of military equipment | 55 |
| Trains with welded rail loaded in open end gondolas | 45 |
| Non-signaled territory | 49 |
| Against the current of traffic | 49 |
| Through turnouts | 10 |
| Tracks governed by GCOR / MWOR 6.28 | 10 |
| Tracks governed by GCOR / MWOR 6.28 where timetable indicates a speed greater than 20 MPH | 20 HER |
| Within Mechanical Department limits | 5 |
| Movements on or off turntables and droptables | 1 |

Foreign railroad locomotives - Speed restrictions posted inside the locomotive cab of foreign railroad locomotives which are less than that listed above only apply when locomotive is utilized as a lead, controlling locomotive.

| Equipment | Main | Branch |
|---|---|---|
| Side dump ballast cars, BNSF car kind YHA and YHH, loaded | 45 | 45 |
| AMTK 1400-1569 (material handling cars) | 60 | 60 |
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 | 45 | 45 |
| Boeing cars, loaded, BNSF 800100-800135, MTTX 978384, 978576, 978596, 978644, 978649, 978660, 978781, 979162, 980855, 981187, 981218 | 45 | 45 |
| Clay cars, RARW 3801-4199 | 45 | 45 |
| Flatcars, empty, NP 580400-580739 | 50 | 50 |
| Flatcars, empty, bulkhead wallboard: BN 616475-616674, CS 616375-616474 DJTX 9300-9398, SOU 115250-115274 | 45 | 45 |
| Flatcars, empty, bulkhead, Picked up enroute and not on conductor's wheel report or work order | 45 | 45 |
| Flatcars, empty or loaded, OTTX 93561, 97852, 97861, 97914, 97920 | 45 | 45 |
| Flatcars, loaded with track panels, ATSF 190298, 209144, 209149 | 35 | 35 |
| Gondolas, empty, KCS 801011-802930, CR 576026-579245 | 45 | 45 |
| Gondolas, empty, Picked up enroute and not on conductor's wheel report or work order | 50 | 50 |
| Gondolas, empty or loaded, PC 598500-598999 CR 598500-598990, SP 345000-345699 | 45 | 45 |
| Herzog clip cars, HZGX 153, 154, 155 | 50 | 50 |
| Herzog MPM Machines, designated to be placed next ahead of caboose or at rear of cabooseless trains. | 55 | 55 |
| Hopper cars, covered, empty, (unless no speed restriction is indicated by train documentation) ASGX 1-50, BCAX 50-149, CGLX 4200-4249, CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904, CRDX 20100-20199, CRDX 20200-20209, CRDX 20300-20324, CRDX 20525-20724, CSXT 242000-242299, DME 29000-29324, DJLX 97300-97319, FLOX 3200-3241, FLOX 983400-983414, GACX 3000-3139, GACX 3150-3196, GACX 3202-3359, GACX 3486-3510, GACX 7959-8008, GCCX 55000-55099, LCEX 801-820, LCEX 824-898, NAHX 21000-21054, NAHX 29700-29867, NAHX 320000-320399, NCUX 20001-20050, NCUX 20106-20130, NRLX 32500-32605, NRLX 32706-32725, NVCX 9500-9619, NS 294220-294319, RGCX 650-899, RGCX 902-1067, RGCX 1069-1142, RGCX 1183-1222, SDWX 9700-9919, SDWX 10000-10333, SDWX 11000, SHPX 432118-432137, SHPX 432057-432116, WW 7001-7300 | 45 | 45 |
| Hopper cars, empty, WFAX 84654-84700 TUGX 36001-36125 | 45 | 45 |

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| Equipment | Main | Branch |
|---|---|---|
| Loram, 400 and 300 series and Harsco rail grinder, traveling (not in work mode) as a train on its own power with a conductor or engineer pilot | 50 | 50 |
| Loram, 400 series and Harsco rail grinder, when controlling movement from the rear control cab in the lead. | 50 | 50 |
| Loram, 300 series rail grinder, when controlling movement from rear control cab in the lead | 40 | 40 |
| Refer to manufacturer's maximum operating speeds when operating on descending grades. | | |
| Loram, LMIX 409, 410, 412, 414, 415, 417, KMUX 110, 750<br>Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars.<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 50 | 45 |
| Loram, LMIX 203, 204<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 55 | 55 |
| Ore cars, empty, 35 ft., OLB 1000-1099 | 50 | 50 |
| Ore cars, loaded, 35 ft., OLB 1000-1099 | 45 | 45 |
| P811, BNSF 922999 | 50 | 50 |
| Plasser machines,PACX 293, 2630, 2645, 3024,4656, 4657, 4774, 4775 | 45 | 45 |
| Plasser THS 2000, tie gang consist | 30 | 30 |
| Plasser 08 & 09 Tampers, PTS 61, 62 & 90 Stabilizers, BDS 100 & 200 Ballast machines, MFS40 & 60 cars and ULS3000 conveyor cars (traveling in a train or under own power with a conductor or engineer pilot) | 50 | 50 |
| Ribbon rail cars, empty | 45 | 45 |
| Ribbon rail cars, loaded | 35 | 25 |
| Ribbon rail loading and unloading cars | 45 | 45 |
| Roadrailer equipment (empty or loaded) | 60 | 60 |
| Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader handled in trains | 30 | 25 |
| Exception: Locomotive cranes/pile drivers with booms removed and secured to a leads car with the counterweight properly secured to the locomotive crane/pile drive car body, billed as empty car. | 45 | 25 |
| Exception: Jordan spreader, BNSF 939800 - 939804 | 50 | 50 |
| Trains and engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.<br>Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by roadmaster or covered by specific instructions. | | |

| Equipment | Main | Branch |
|---|---|---|
| Scale test cars<br>Exception: cars listed below have a minimum gross weight of 100,000 lbs. and may move in any position in the train and at maximum authorized speed for which the train is qualified. BN 979020-979024, BN 979026, BNSF 979019, FGWX 100000-700000, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, WWBX 199917-199919 | 35 | 25 |
| Schnabel type cars, empty. Cars must be handled on or near the rear of trains not exceeding 100 cars in length, must not be handled in trains requiring pusher service and must not be humped or switched with motive power detached | 45 | 45 |
| Exception: GEGX 21154, GEGX 21155, GEX 80000, GEX 80002, MAMX 1001 | 40 | 40 |
| Exception: KRL 3600, KRL 3601, GEX 80003, HEPX 200, PTDX 202 | 25 | 25 |
| Tank cars, ACFX 17451-17495, NATX 10841-10865 | 45 | 45 |
| Tank cars, DVLX 4001-4190, UTLX 76517, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736-76738, 76742-76745, 76747, 76748, 76750, 76751, 78256-78269, 78272, 78274, 78278, 78281, 78285, 78287-78293, 78326, 78328-78333, 78336-78340, 78343, 78344, 78347, 78348, 78350. 78353 | 40 | 40 |
| Tank cars, empty, CORX | 50 | 50 |
| Tank cars, loaded, CELX 6400-6455, 10400-10443 (must not be handled nearer than 6 cars from locomotive when loaded) | 45 | 45 |
| Wedge plow or dozer, hauled in tow | 35 | 25 |

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH and 21 MPH can cause derailments due to harmonic rocking of cars. Where specified by timetable individual subdivision special instructions or general order, the following restrictions apply when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains consisting entirely of empty equipment, which cannot maintain a minimum speed of 21 MPH, must reduce speed to 13 MPH or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Passenger Trains/Engines**

| | MPH |
|---|---|
| Amtrak | 90* |
| Metrolink | 90* |
| Metra | 79* |
| Sounder (Sound Transit) | 79* |
| Northstar | 79* |
| All other classes | 70 |

Exception:
When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, maximum speed is 45 MPH.

* Engine without cars must not exceed 70 MPH.

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**1(C). Multiplatform Equipment**
**Intermodal Equipment**

| TSS Car Kind Codes | Car Description | Units or Segments | Axle Count | Control Valves and/or Car Count | Trailers=T Containers=C Either=T/C |
|---|---|---|---|---|---|
| Articulated cars | | | | | |
| QY | Doublestack | 5 | 12 | 3 | C |
| QV | Doublestack | 3 | 8 | 2 | T/C |
| QM | Spine Car | 3 | 8 | 2 | T/C |
| QC | Spine Car | 3 | 8 | 2 | T |
| QO | Spine Car | 5 | 12 | 3 | T/C |
| Q5 | Spine Car | 5 | 12 | 3 | C |
| QE | Spine Car | 5 | 12 | 3 | T |
| FM | Twin Flat | 2 | 6 | 2 | C |
| M2D M3D M2F M3F | Automax | 2 | 6 | 2 | |
| Non-Articulated Cars | | | | | |
| QW | Doublestack | 3 | 12 | 3 | T/C |
| QX | Doublestack | 4 | 16 | 4 | T/C |
| QT | Doublestack | 5 | 20 | 5 | C |
| QB QD | Twin Flats | 2 | 8 | 2 | T |
| QL | Twin Flats | 2 | 8 | 2 | T/C |
| Single Unit Intermodal Cars | | | | | |
| QU | Doublestack | 1 | 4 | 1 | T/C |
| QK | Doublestack | 1 | 4 | 1 | T/C |

**Car Kind Codes for Intermodal Equipment**
In addition to the intermodal equipment listed above, all car kind codes beginning with the letter M, P or Q are considered intermodal equipment. On cars shown above, only the first two characters are required to identify car type, with the exception of those identifying Automax cars. However, train lists may use more than two characters to identify a given car type.

**Definitions of Multiple-Unit Equipment**
*Articulated*—Refers to cars with multiple units (segments) that are connected with articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**
Tons per operative brake on cars above is determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.

(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.

(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**
In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Cabooses and any car loaded with container chassis are considered loads for the purpose of the rule.

Exception: Intermodal equipment with empty units/platforms are restricted to 55 MPH only if not equipped with constant contact side bearings (CCSB). BNSF train documentation now provides guidance on this empty unit restriction as it applies to the intermodal cars listed above. When handling all intermodal equipment, train documentation will provide one of three messages as follows:

1. Train does not contain any intermodal equipment with empty units without CCSB.
2. Train is restricted to 55 MPH due to intermodal equipment with empty units without CCSB.
3. Train may be restricted to 55 MPH due to possibility of intermodal equipment having empty units without CCSB - Inspect to Verify.

In the event message 3 above is on train documentation, if train is otherwise authorized to exceed 55 MPH, a visual inspection must be made to determine the loaded status of units/platforms on car(s) listed. The inspection results must be noted on train list for relieving crews' guidance on train's maximum authorized speed.

When adding intermodal equipment enroute, train documentation may not have been generated. When this occurs, consider such car(s) to be restricted to 55 MPH if any units/platforms are empty. Subsequent train lists produced for crews after a pick up enroute will provide speed information on cars based on if CCSB-equipped.

This does not apply to trains that are otherwise restricted to 55 MPH or less such as when handling cars not listed above that are empty, other equipment speed restrictions, fuel conservation speed limits, etc.

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

Cajon Sub..... MP 56.6 to MP 80, all tracks
Raton Sub ..... MP 639 to MP 660
Glorieta Sub ..... MP 775 to MP 810
Glorieta Sub ..... MP 818 to MP 842
Pikes Peak Sub ..... MP 52 to MP 66
Hi Line Sub..... MP 1151 to MP 1166, both tracks
Midway Sub..... MP 0.5 to MP 2, both tracks
Phoenix Sub ..... MP 381.0 to MP 402.0
St. Paul Sub ..... MP 430 to MP 5, both tracks
Scenic Sub ..... MP 1694.5 to MP 1731.3
Stampede Sub..... MP 41.0 to MP 58.5
San Diego Sub ..... MP 250 to MP 255 (NCTC)
Gateway Sub..... MP 178.0 to MP 188.0

**On UP Railroad:**
Mojave Sub ..... MP 331.3 to MP 381.3
Moffat Tunnel Sub ..... MP 19 to MP 50
Moffat Tunnel Sub ..... MP 58.1 to MP 61.7
Provo Sub..... MP 630.5 to MP 638.1
Provo Sub..... MP 652 to MP 682
Roseville Sub ..... MP 115 to MP 170
Roseville Sub ..... MP 195 to MP 210

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## 2(B). Locomotive Data Tables

| DC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| SW1 | 4 | 0 | 600 | 99 |
| SW10 | 4 | 0 | 1,000 | 125 |
| NW10 | 4 | 0 | 1,200 | 126 |
| SW12 | 4 | 0 | 1,200 | 125 |
| SW15 | 4 | 0 | 1,500 | 131 |
| MK1200G | 4 | 0 | 1,200 | 125 |
| SWBL-W | 4 | 0 | 1,500 | 131 |
| GP7 | 4 | 0 | 1,500 | 125 |
| GP9 | 4 | 4* | 1,750 | 130 |
| GP9B | 4 | 0 | 1,750 | 124 |
| GP10 | 4 | 0 | 1,800 | 130 |
| GP15, GP15-1 | 4 | 0 | 1,500 | 129 |
| GP18 | 4 | 0 | 1,800 | 124 |
| GP20 | 4 | 4BT | 2,000 | 131 |
| GP28 M/P | 4 | 4BF | 1,800 | 130 |
| GP30 | 4 | 4BT | 2,500 | 131 |
| GP35 | 4 | 4BT | 2,500 | 133 |
| GP38,GP38-2 | 4 | 4ET | 2,000 | 143 |
| GP39, GP39-2 | 4 | 4EF# | 2,300 | 135 |
| GP40 M,E,-2 | 4 | 4BF | 3,000 | 139 |
| GP40X | 4 | 4BF | 3,000 | 139 |
| GP50 | 4 | 4EF | 3,600 | 138 |
| GP53, GP53L | 4 | 4EF | 3,000 | 136 |
| GP60M | 5+ | 5EF+ | 3,800 | 137 |
| GP60B | 5+ | 5EF+ | 3,800 | 135 |
| B23-7 | 4 | 4EF | 2,300 | 134 |
| B30-7A | 4 | 4BF | 3,000 | 138 |
| B36-B-7 | 6+ | 4EF | 3,600 | 140 |
| B-39-8 | 6+ | 5EF+ | 3,900 | 140 |
| B-40-8 | 6+ | 5EF+ | 4,000 | 142 |
| SD7 | 6 | 5BF+ | 1,500 | 157 |
| SD9 | 6 | 5 * | 1,750 | 184 |
| SD18 | 6 | 0 | 1,800 | 175 |
| SD35 | 6 | 5 * # | 2,500 | 195 |
| SD38-2 | 6 | 6 * # | 2,000 | 184 |
| SC38P | 6 | 6BF | 2,000 | 196 |
| TEBC6 | 6 | 6B | 2,000 | 194 |
| SD39 | 6 | 6EF | 2,500 | 195 |
| SD40, SD40-2 | 6 | 6EF * # | 3,000 | 196 |
| SD45, SD45-2 | 6 | 6ET | 3,600 | 198 |
| SD50 | 6 | 6EF | 3,600 | 194 |
| SD60, SD60M | 7+ | 8EF+ | 3,800 | 201 |
| SD70M | 7+ | 9EF+ | 4,000 | 200 |
| SD75M | 7+ | 9EF+ | 4,300 | 197 |
| C30-7 | 6 | 6EF# | 3,000 | 209 |
| SF30C | 6 | 6EF | 3,000 | 160 |
| C36-7 | 6 | 6EF | 3,600 | 197 |
| C40-8 | 7+ | 8EF+ | 4,135 | 197 |
| C44-9W | 8+ | 8EF+ | 4,400 | 196/210 |
| ES44DC | 8+ | 8EF+ | 4,400 | 210 |

| AC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| **C44AC[1] AC4400CW[1] AC4400EV[1] CW44AC[1]** | 8+ | 10EF+ | 4,400 | 210 |
| 1TM c/o | 8+ | 8EF+ | | |
| 2TM c/o | 6 | 6EF | | |
| 3TM c/o | 4 | 5EF | | |
| 4TM c/o | 3 | 3EF | | |
| 5TM c/o | 2 | 2EF | | |
| **C60[1] C60AC[1]** | 8+ | 12EF+ | 6,000 | 210 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **ES44AC[1]** | 8+ | 10EF+ | 4,400 | 208 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **SD70MAC** | 8+ | 8EF | 4,000 | 208 |
| 1 Truck c/o | 4 | 5EF | | |
| **SD70ACE** | 8+ | 10EF+ | 4,300 | 208 |
| 1TM c/o | 6 | 6EF | | |
| **SD70ACE4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD70ACT4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD80MAC** | 8+ | 10EF | 5,000 | 210 |
| 1 Truck c/o | 5+ | 5EF | | |
| **SD90/43MAC** | 8+ | 10EF | 4,300 | 208 |
| 1 Truck c/o | 4 | 6EF | | |
| **SD90MAC** | 8+ | 11EF | 6,000 | 208 |
| 1 Truck c/o | 6 | 6EF | | |
| **ES44C4[1] AC44C4M[1]** | 8+ | 8EF+ | 4,400 | 208 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **ET44C4[1]** | 8+ | 8EF+ | 4,400 | 214 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |

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Note: Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.

| | |
|---|---|
| + | Power or dynamic brake axle rating exceeds actual axles |
| ¹ | GE/EMD Locomotives (C44AC, C60AC, SD70ACT4, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives. |
| % | PTC Equipped |
| * | May not be equipped with dynamic brakes |
| # | May be equipped with standard range dynamic brakes |
| E | Extended dynamic brake range |
| B | Basic dynamic brake range |
| F | Flat dynamic brake system |
| T | Tapered dynamic brake system |

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in timetable individual subdivision special instructions.

| |
|---|
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 |
| Dozers |
| Empty ribbon rail cars (if moving with no train list or if identified as “Rear End Only” on train list) |
| Herzog clip cars: HZGX 153, 154, 155 |
| Herzog MPM:<br>HZGX 164, 165, 167, 174, 1740, 176, 1760, 178, 1780, 179, 1790, 180, 1800<br>HZGX 189, 1890, 18900, 192, 1920, 19200, 193, 1930, 19300, 194, 1940, 19400, 195, 1950, 19500, 199, 1990, 19900, 200, 2000, 20000, 205, 2050, 20500, 206, 2060, 20600, 207, 2070, 20700 |
| Jordan spreaders |
| Locomotive cranes |
| Loram, LMIX 203, 204, 409, 410, 412, 414, 415, 417, KMUX 110, 750 |
| Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars |
| Outfit cars (Exception: Univans may be placed anywhere in the train.) |
| P811, BNSF 922999 |
| Pile drivers |
| Plasser machines, PACX 293, 2630, 2645, 3024, 4656, 4657, 4774, 4775 |
| Plasser THS 2000, tie gang consist |
| Rear end only cars |
| Ribbon rail loading and unloading cars |
| Rotary snowplows |
| Wedge plows |

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

Locomotive cranes/pile drivers, wrecking derricks or similar equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by Roadmaster or covered by specific instructions. This equipment must not be humped, cut off in motion or struck by any car moving under its own momentum.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Hand brakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant).
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the timetable individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks as outlined in SSI Item 5.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines (including foreign line cars) having:

- elevated hoses for dump door air line,
  or
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level),

must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

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**3(D). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(E). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locking devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

A. If the adjacent track is a Main Track, controlled siding or other track where CTC is in effect, authority must be obtained as prescribed by MWOR 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR 6.19 to control movement by the work area.
B. If the adjacent track is a track governed by GCOR/MWOR 6.28 (i.e. yard, industry track, etc.), movement must not be permitted to pass air dump cars which are being charged or being unloaded.

**3(F). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

A. Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
B. Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
C. Cars with defective couplers may be transported to repair facilities behind caboose.
D. A crew transport train consisting of no more than two cabooses positioned between two locomotives may be operated during inclement weather conditions. The lead locomotive must be the controlling locomotive, with trailing locomotive isolated.

**3(G). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 MPH through other than Main Track turnouts.

**3(H). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(I). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid-drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**3(J). Herzog Articulated Equipment**

Herzog articulated equipment (all-purpose machines) are restricted as rear end only because drawbar connection between Herzog locomotive and cars does not have vertical restraint.

Switching Restrictions: All Herzog equipment must not be humped or handled with other freight cars during switching operations. This equipment must be cut off or set over so that remaining cars can be switched.

**3(K). Herzog Rail Unloading Machine**

A Herzog Rail Unloading Machine (RUM) may be coupled to a work train for rail unloading purposes only. The train must remain stationary while the RUM couples to the train in self-propelled mode. The following restrictions apply to trains with a Herzog RUM coupled to the train:

- All train movements may be made only at the direction of a qualified Herzog RUM operator accompanying the equipment.
- Maximum speed with Herzog RUM on trailing end of the movement is 15 MPH.
- Maximum speed with Herzog RUM on leading end of the movement is 10 MPH.

**3(L). Handling Roadway Equipment Equipped with Couplers and Air Hoses by Trains or Engines**

To prevent equipment damage, the following restrictions apply when handling Roadway Equipment equipped with rail car couplers and air hoses during train or switching movements:

- All air hoses must be coupled and air brakes cut in.
- An Engineering employee must be present when switching this equipment, including shoving movements.
- When moving between work locations all P811, UC01, UC03, UC08, UC09, UC10 and SC29-35 machines, and the flat cars transporting supporting equipment accompanying these machines, must be handled in a dedicated unit train or a dedicated work train. No additional rail cars may be handled in these trains.
- The heaviest machine may be placed as the rear car of a train only as directed by an Engineering employee.
- Maximum allowable speed while transporting in a train is 50 MPH.

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**4. Geometry Test Car Instructions**

Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, 93 and NXGX 390 (NxGen Car) must move in train by themselves. Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, and 93 are not required to have an ETD at the rear of the car when the car is occupied.

Work Orders for trains handling unmanned geometry test cars BNSF 90, 91, 92, and 93 will include instructions advising the conductor to call the Geometry Car Desk at 817-352-4559.

BNSF 808306, BNSF 808382, BNSF 808387, BNSF 808426, BNSF 808655 and BNSF 808683 are buffer cars assigned to Geometry Car service. When operating in a Geometry Car Consist, these buffer cars are considered to be passenger train equipment with a maximum authorized speed of 70 MPH.

Trains handling test cars AAR 112, BNSF 82 and BNSF 83 behind the locomotive consist may operate without further restricting the train from the maximum authorized speed designated in timetable individual subdivision special instructions. GCOR 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR 5.12 or 5.13. These cars are considered to be occupied at all times.

**FRA Track Geometry Inspection Cars**

The Federal Railroad Administration (FRA) Office of Railroad Safety-Automated Track Inspection Program (ATIP) manages a fleet of geometry test cars that measure track geometry for compliance with the Federal Track Safety Standards. FRA geometry cars are pulled behind a railroad-owned locomotive and staffed with FRA employees and contractors.

**FRA Geometry Car Operation**

1. Each train dispatcher and train crew will be governed by these instructions.
2. Before ATIP testing commences, the FRA representative (assisted by the test car director) is responsible for overall safety and will:
   a. Conduct a face-to-face job safety briefing with the train crew and all occupants of the test car concerning onboard safety appliances and standard operating procedures.
   b. Be aware of and discuss the operational and safety conditions, and on-track protection procedures, which may change throughout the course of the ATIP test; and update the job safety briefing accordingly.
3. The FRA representative will communicate directly with the railroad to ensure all operating rules, special instructions, and safety rules in effect on the test route are understood and correctly applied.
4. Trains consisting entirely of FRA geometry cars are restricted to BNSF timetable passenger train speeds, and must not exceed the following maximum equipment speeds: DOTX 216, 125 MPH; DOTX 217, 219, 220 and 221, 90 MPH; and DOTX 218, 80 MPH.
5. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew. The FRA Geometry Car operator relies on the train crew to identify relevant railroad physical characteristics, movement authority limits and authorized speeds.

**FRA Geometry Car Protection**

1. Neither FRA nor contractor employees will operate a railroad switch or derail, and will rely upon a railroad employee to perform that function. After receiving authority for placement from the appropriate railroad representative, protective devices owned by FRA, i.e., signs, derails, and locking devices, will be applied by an FRA representative.
2. FRA geometry cars must not be relocated or coupled to other rolling equipment without permission of FRA. At the request of FRA or the railroad, the following additional protective measures must be used:
   a. Within a locomotive servicing area or car shop area, the railroad's Blue Signal Protection rules and procedures will govern.
   b. When FRA geometry cars are unoccupied, FRA may request additional protection, such as posted guards, provided by the railroad and reimbursed by FRA.
   c. Where provided, a remotely controlled switch, providing entrance to the track occupied by FRA geometry cars, will be aligned against movement to that track. Blocking devices applied by the control operator will be placed on the switch and signal controls to prevent undesirable access.
   d. A manually operated switch will be aligned against movement to a track occupied by the FRA geometry car, and secured with an effective locking device, exclusive to FRA. In addition, the switch stand's operating mechanism will be equipped with an FRA-provided, visible, all-weather display tag, warning any users: "OUT OF SERVICE - DO NOT OPERATE."
   e. If a switch-locking device cannot be provided, as described above, FRA-provided portable derails will be used as an alternative to restrict access in either direction. In addition to the portable derails, the placement of warning signs will be displayed, indicating the presence of FRA geometry cars. The warning signs will be affixed or adjacent to the derail. FRA-provided derails will not be placed nearer than 150 feet from each end of the geometry cars, except where appropriate.
   f. If an FRA geometry car is standing alone, in addition to applying the hand brake, one wheel will be securely chocked to prevent movement.
   g. Either on a Main Track or other than Main Track, before anyone goes on, under, or between FRA track geometry cars, the locomotive engineer will apply the independent brake on the locomotive, remove the locomotive reverser, and open the field generator switch. The individual requiring protection will place a "Do Not Operate" tag on the locomotive control stand at a location where it is readily visible to the locomotive engineer or operator at the controls of that locomotive. The "Do Not Operate" tag may only be removed by the person who placed it on the locomotive control stand. Additionally, if adjacent tracks are, or will be, fouled by the individual going on, under, or between the FRA track geometry car, appropriate adjacent track protection must be afforded before going on, under, or between the car.

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**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- For hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E).
- For tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E).

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601399) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

The actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to locomotive cranes, ribbon rail cars or specialized work equipment.

Item 1(B) of the individual subdivision special instructions may include loaded railcar weight references, in which case the actual car weight may exceed the maximum by up to one ton due to weighing tolerances.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

**Table 5.**

**Car Restrictions**

| Line No. | No/ Axles and/ or Car Length | Typical Car Types & Partial Listing of Representative Car Number Series | **Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H**<br>Indicated weight limits are applicable to either single car or multiple car movements except for:<br>"143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements.<br>"P," which denotes that this type of car is permitted without special autohrization.<br>"NP," which denotes that this type of car is not permitted without special authorization. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E | F | G | H |
| 1 | 4 axles & length less than 35'0" | Hopper | 89 | NP | 89 | NP | NP | NP | NP | NP |
| 2 | 4 axles & length 35'0" to 36'11" | Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179 | 134 | 117 | 134 | 117 | 110 | 110 | 110 | 110 |
| | | | A | B | C | D | E | F | G | H |
| 3 | 4 axles & length 37'0" to 38'11" | Hopper, tank cars ATSF 82056-82990, 176900-177861 | 141 | 123 | 141 | 123 | 117 | 117 | 117 | 117 |
| 4 | 4 axles & length 39'0" to 40'11" | Hopper, tank cars BN 435500-435999 | 143 | 131.5 | 143 | 131.5 | 123 | 123 | 123 | 123 |
| 5 | 4 axles & length 41'0" to 42'11" | Hopper, tank cars BN 476000-476019 | 143 | 143 | 143 | 143 | 134 | 134 | 134 | 131.5 |
| 6 | 4 axles & length 43'0" to 44'10" | Hopper, tank cars | 143 | 143 | 143 | 143 | 136 | 136 | 134 | 131.5 |
| 7 | 4 axles & length 44'11" to 49'5" | Hopper, gondola, tank cars BN 686000-686054 COILCAR | 143 | 143 | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 8 | 4 axles & length greater than or equal to 49'6" | Hoppers, flats, gondolas, tank cars | 143X | 143X | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 9 | 6 axles | ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 LMIX 403, 409, 410, 412, 414, 418, NS 185541-185542 | 197 | 197 | 197 | 197 | 197 | 197 | 185 | NP |
| 10 | 6 axles | DODX 39810-39832, KRL 600430 | 197 | 197 | 185 | 185 | 185 | 178 | 175 | NP |
| 11 | 6 axles | Others | 185 | 185 | 170 | 170 | 170 | 165 | 160 | NP |
| 12 | 8 axles & length greater than or equal to 80'0" | ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021 | 263 | 263 | 263 | 263 | 263 | 235 | 235 | NP |
| 13 | 8 axles & length greater than or equal to 55'0" and less than 80'0" | | 263 | 255 | 263 | 255 | 235 | 235 | 235 | NP |
| 14 | 8 axles & length less than 55'0" | ATSF 90020-90023 | 220 | 195 | 220 | 195 | 180 | 180 | 180 | NP |
| 15 | | Articulated Intermodal | P | P | P | P | P | NP | NP | NP |

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**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Any foreign line carrier operating on BNSF that sets out equipment must notify the BNSF train dispatcher and the BNSF Mechanical Help Desk at the earliest opportunity and provide the following information:

- Equipment being set out including the engine/car number.
- Location where equipment was set out.
- Reason equipment was set out (e.g. flat spots, broken brake rigging, hot bearing, etc.).
- Commodity if a car contains a hazardous material, including but not limited to, Inhalation Hazard car(s).
- Any other pertinent information.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were performed enroute.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the proper track NUMBERS where they report work. Refer to the TRKLIST command in TSS for track numbers at a station or on a subdivision.

**Unit Trains (C, E, G, J, U, and X)**

Unit Trains at origin must report a "Pick Up" event and unit trains at destination must report a "Set Out" event using VTR.

- Report "Set Out" time through the VTR when the set out work is complete at the industry track, trains crews are clear of the equipment and the customer can begin processing the train, or when the unit train is handed off to the facility operator.
- Report "Pick Up" time through the VTR when the train begins departure from the industry track, departing the customer facility.

Train Work Order Package includes the following documents:

- Train list and profile.
- FRA 215.9 Mechanical Defective Cars List (if applicable).
- Hazardous manifest (if train contains hazardous materials).
- Work order for each station.
- Track list of each track to be worked.
- Supplemental Work Order Form.

The following reporting codes will be used to report work performed:

| Reporting Codes | | |
|---|---|---|
| Reporting Instructions for Scheduled/Unscheduled Work | | |
| Code | | |
| CC | CARRIERS CONVENIENCE | (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number. |
| DD | CARS DELIVERED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| IP | INTRA-PLANT SWITCH | (Code, date, time, zone/track/spot) |
| MO | MOVE | (Code, date, time, station name, zone/ track/spot). Use only to reposition a placed car to correct customer inventory. |
| ND | NOT DONE | (When ND code is used, enter ND explanation code or a full written explanation.) |
| OF | CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD | (Code, date, time, station name, zone/ track, name of road and person's name refusing cars) |
| PK | PICKUP | (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order. |
| PU | PULL | (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time, station, zone/ track where cars were left.) |
| RR | CARS RECEIVED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| RS | RESPOT | (Code, date, time, zone/track spot) |
| SO | SETOUT | (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/ number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD. |
| SP | SPOT | (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number. |
| TU | CARS TURNED ON WYE OR TURNTABLE | (Code, date, time, station name, zone/ track/spot) |

**Not Done Reasons - Potential Charge to Customer**

Car Can't Be Pulled - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

Car Can't Be Spotted - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

**Not Done Reasons - Not Chargeable to Customer**

Operation Reason

- Bad Order Car
- Done in Other Direction
- Tonnage Restrictions or Loco Problems
- Instructed to do Other than Scheduled Industry Work
- Not Switched into Train - Unavailable
- Hrs of Service Expired or Short on Time
- Weather Conditions
- Not Granted Mainline Time by Dispatcher
- Other Operating Exception

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Reporting Methods**

*Radio*—With the exception of trains using the Work Order Reporting system or when reporting work trains, Voice Train Reporting using the MRAS/PBX system is the preferred method of reporting work. Conductors and engine foremen are expected to report as soon as possible after work is performed at each station. If Voice Train Reporting (VTR) or Work Order Reporting System (WORS) is used to report, it is not necessary to call Customer Support.

*Telephone or Cellular Phones*—Telephone or cellular phones assigned to conductors and engine foremen may be used when MRAS/PBX or radio communication is unavailable or radio is congested in order to provide timely reporting in the field.

*Electronic Device*—Computer reporting will not require any written documentation to be forwarded.

Conductors and engine foremen are required to call their designated Customer Support Specialist anytime there are questions or problems with work order information or work to be performed during their tour of duty.

**Work Order Codes**

There are three types of work order codes that appear on work orders: Request Codes, Status Codes and Hold Codes.

| Request Codes | | |
|---|---|---|
| **Code** | **Displays Work to Be Performed** | |
| **IP** | **INTRA-PLANT SWITCH** | Customer request to move a car originally spotted correctly to another spot or track within the industry. Cars are commonly moved per this request to complete loading, for inspection, etc. This switch is chargeable to the customer. |
| **PK** | **PICKUP** | Cars available to be picked up by train, local, road switcher at station. |
| **PU** | **PULL** | Customer request to move a car from an industry track to another track or scheduled destination. |
| **RS** | **RESPOT** | This switch is not chargeable to the customer and should be used only when correcting a railroad error. Customer request to move a car to a different track or spot within the industry after being placed incorrectly. |
| **SO** | **SETOUT** | Cars scheduled to be set out by train, local, road switcher at station. |
| **SP** | **SPOT** | Customer request to spot car for loading/unloading. |
| **TU** | **CARS TURNED ON WYE OR TURNTABLE** | Request to turn a car previously spotted and re-spot. |

| Status Codes | | |
|---|---|---|
| **Displays Current Status of Cars (Does not require any work to be performed)** | | |
| **Code** | | |
| **CP** | **CP** | Constructive placement. (Condition between carrier and customer.) |
| **DD** | **CARS DELIVERED IN INTERCHANGE** | Displays cars scheduled for interchange delivery to a connecting road. |
| **OF** | **CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD** | Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars. |
| **PL** | **PLACED** | Car on spot. (Displays car status and not a request.) |

| Hold Codes | |
|---|---|
| **Carrier/Customer Instructions Have Not Been Provided** | |
| **Scheduled Train Field** | |
| **HOLD ED** | Car to be held for equipment distribution. |
| **HOLD EH** | Car is to be held for embargo. |
| **HOLD HL** | Car is HIWIDE and has not been scheduled to a train. |
| **HOLD LS** | Car is on floating lease being held for customer order. |
| **HOLD ME** | Car is to be held for mechanical inspection. |
| **HOLD MT** | Car not scheduled for outbound train. |
| **HOLD NI** | Car has no instructions for spotting. |
| **HOLD OT** | Car is to be held for local order. |
| **HOLD WH** | Car is to be held for weighing. |
| **HOLD HF** | Car has no measurements/clearances. |
| **SCHI Code Field** | |
| **DO** * | Written delivery order. DO NOT SPOT. |
| **NC** * | Non-credit customer. DO NOT SPOT. |
| **SO** * | Car billed shipper's order. DO NOT SPOT. |
| **ZNTKSP Field** | |
| **00 00 00*** | DO NOT SPOT |

* Do not spot cars with '00 00 00' in the ZNTKSP field or cars with NC, DO or SO in the SCHI field.
(Cars may be pulled or picked up and moved to a location for further disposition when these codes are displayed.)

Work order documents will display work order codes as outlined by customer or carrier for specific instructions to conductors or engine foremen. They will be located in the Special Car Handling Instructions (SCHI) column or in the Scheduled Train column.

**Hours of Service**

Conductors or engine foremen should plan ahead and report scheduled and unscheduled work before hours of service expire. Conductors and engine foremen who relieve crews whose hours of service have expired will be responsible for reporting work performed during their tour of duty. If a crew's hours of service expire and they are unable to report scheduled or unscheduled work, the information must be passed on to the relieving conductor, engine foreman or supervisor who will be responsible to report work for the previous job.

**Pick Up in Block**

When picking up cars, enroute, trains must pick up in block unless otherwise advised by train dispatcher or in conflict with current train makeup instructions.

**7. Dimensional and Special Shipment Restrictions**

All employees involved in handling dimensional or special shipments must be familiar with and are governed by these instructions.

Dimensional loads on BNSF are defined as wider than 11' and/or higher than 17' ATR and/or longer than the length of the car.

Transportation Supervisors: See Management Instruction regarding advance notification requirements for dimensional shipments routed on UPRR or within the state of California.

a. Any dimensional and/or oversize car or special shipment must be accompanied by one of the following: message included with train's work order, track bulletin or message issued by BNSF Clearance Bureau.

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b. Before a dimensional shipment can be assigned to a train the supervisor in charge of train or yard crews (Terminal Manager, Trainmaster, Assistant Trainmaster, Yardmaster, etc.) at that location, or the conductor or yard foreman where no supervisor of train or yard crews is on-duty, must review and verify the dimensional clearance bulletin to ensure shipment is clear over the designated route of travel. After the review is complete the shipment may be assigned to the train appropriately. Issues regarding scheduling and/or train set, please contact Service Scheduling at 817-867-2000. Any issues regarding additional clearance segments and/or a lack of clearance, please contact the Dimensional Clearance Team for assistance at high.wide@bnsf.com.

c. Before a dimensional shipment can be moved in the yard, train or yard crews handling the dimensional shipment must ensure there is adequate clearance on adjacent tracks for safe movement. Clearance bulletins issued by the High Wide Team only protect BNSF main lines.

d. Before a dimensional or special shipment can be moved in a train the supervisor in charge of train crews (Trainmaster, Assistant Trainmaster, Yardmaster) at that location, or the conductor where no supervisor of train crews is on-duty, must obtain permission from the train dispatcher. This does not relieve conductor from complying with GCOR 1.47. When yard supervisors are notified of expected arrival of wide cars, precautions must be taken to safeguard employees in yard.

e. Before a dimensional shipment is picked up on line, conductor must obtain permission from the train dispatcher. When dimensional or special shipment is set out on line, conductor must promptly notify the train dispatcher.

f. Train dispatcher must issue appropriate track warrant, track bulletin or message when dimensional shipment restricts opposing train and confirm message received.

g. Train with dimensional shipment must not pass or be passed by a train in the same direction unless authorized by the train dispatcher or proper safeguards taken.

h. To provide for close observation enroute, all dimensional shipments must be placed in a block next to the lead locomotive consist, or due to the following exceptions as near the lead locomotive consist as possible:

1. Dimensional shipments, including idler cars moving with dimensional shipments, must be placed in compliance with minimum weight requirements outlined in train makeup rules.
2. On trains destined to or operating in the state of California, and train room permits, dimensional shipments must be no closer than the 6th car or platform from the lead locomotive consist. Dimensional shipments placed in train to comply with these requirements are also considered in compliance when enroute from the state of California.
3. Trains received from foreign railroads with dimensional shipment placement other than described above, may proceed to a location specified by train dispatcher to correct the condition.
4. When dimensional shipment is a shiftable load, GCOR 1.37 applies.

Boeing dimensional shipments, identified as having contents ACFTEQ on the train list, must be placed ahead of other dimensional shipments. Trains with one or more dimensional Boeing shipments with contents ACFTEQ, are limited to a combination not to exceed 10 loads and/or empties.

The following idler cars do not count towards the 10 car combination limitation:

| | | |
|---|---|---|
| MTTX 978773 | TTMX 80662 | XTTX 146316 |
| TBCX 737002 to TBCX 737042 | TTMX 80681 | XTTX 146319 |
| TBCX 737067 to TBCX 737084 | TTMX 80857 | XTTX 146322 |
| TTMX 80139 | XTTX 146251 to XTTX 146254 | XTTX 146323 |
| TTMX 80300 | XTTX 146262 | XTTX 146337 |
| TTMX 80635 | XTTX 146264 to XTTX 146267 | XTTX 146339 |
| TTMX 80657 | XTTX 146276 | |

These are specialized Boeing Service idler cars weighing 45 tons or more and may be billed loaded or empty, depending on destination. Trains handling all empty dimensional Boeing cars with contents ACFTEQ are limited to maximum of 25.

Note: In the application of the above, articulated autoveyors (car kinds M2F and M3F) are not considered dimensional shipments. (See Item 46)

No more than five uncovered assembled airplane fuselages may be transported in a train without approval from Boeing.

Airplane fuselages transported in trains from Wichita to Renton must be turned as soon as possible to move nose first in the direction of train travel unless otherwise approved by Boeing.

i. Employees are prohibited from riding excessive dimension cars. This restriction does not apply to:
- Auto-Max cars (car types M2F and M3F)
- Boeing cars - XTTX 146220, XTTX 146232, XTTX 146304, XTTX 146311, XTTX 146298, XTTX 137353

j. Train crews handling dimensional and/or oversize car or special shipment car(s) approaching locations controlled by the train dispatcher and where these car(s) are restricted should communicate with the train dispatcher and jointly determine if a meet or pass of any other equipment at the restricting location(s) can be accomplished safely.

k. When the dimensional message indicates “Stop, Proceed on Hand Signals” at a specific location, the following will apply:
- Stop the train before passing the location specified.
- Check the dimensional load for shifted contents.
- If safe to proceed without damage to shipment or property, move beyond the specified location on instructions from an employee(s) closely observing the shipment, not exceeding 5 MPH until the dimensional shipment clears the location specified.
- If employee(s) is unable to continue observing the shipment closely due to train makeup, topography, etc., movement may continue, not exceeding 5 MPH until the dimensional shipment clears the location specified.

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## 8. Trackside Warning Devices (TWD)

### 8(A). Description

Trackside warning devices (TWD) inspect passing trains for defects or monitor for unusual trackside conditions that could adversely affect the safe and efficient movement of trains. Examples of such devices include detection of the following conditions:

- Overheated journal bearings (hot bearing) (HBD)
- Dragging equipment (DED)
- High/Wide/Shifted load (SLD)
- High water
- Earth/Rock slide fence (Slide)

Individual subdivision special instructions identify the following:

- Detector location
- Detector type

Unless otherwise stated, protection will be hot journal and dragging equipment with bidirectional operation.

Exceptions will be shown as follows:

- Northward direction only (NWD)
- Southward direction only (SWD)
- Eastward direction only (EWD)
- Westward direction only (WWD)
- Dragging equipment only (DED)
- Shifted load only (SLD)
- Earth/Rock slide fence (Slide)
- Track Integrity Warning System (TIWS)
- Wheel Impact Load Detector (WILD)
- Detectors that protect bridges, tunnels or other structures
- Exception Reporting detector

### 8(B). Detector Radio Message

While passing over a detector, a pre-alarm message indicating "You have a defect" will be transmitted if a defect is detected. When this pre-alarm message is transmitted, immediately begin reducing speed in preparation to stop after the alarm message is transmitted, utilizing train handling methods that minimize in-train forces. Do not reduce speed below 20 MPH.

After a train has passed a detector, a radio message will be transmitted (unless the detector is defined as "Exception Reporting" in Item 5(B) of the individual division timetables). This radio transmission will provide alarm message details for defects noted during train passage such as "hot journal" detected, or non-alarm messages such as "no defects" or "integrity failure."

When the entire train has passed the detector and alarm message is transmitted, immediately stop the train utilizing train handling methods that minimize in-train forces.

The detector message is not complete until "Out" is transmitted.

**Train Approaching Detector**

Except in emergency, when approaching train is within 150 feet of a TWD, DO NOT make a radio transmission until the entire train has passed the TWD.

The train crew must have the radio set to the “in service” radio channel, for the Subdivision and location of the TWD, as shown in the timetable. The radio channel should not be changed until the entire train has passed by the TWD location and you have allowed time for the TWD to transmit any messages.

### 8(C). Detector Message and Train Crew Action

Use the following table to determine crew requirements when a detector message is received. If detector indicates more than one detector message or circumstance, comply with each train crew action shown. Radios at Exception Reporting detectors will only transmit a message when an alarm is present. Do not report a failure to transmit to the train dispatcher as is required with other types of detectors.

Note: 5(A) indicates detectors that protect bridges, tunnels or other structures. 5(B) indicates other TWD locations.

**Table No. 1 - 8(C) Non-Alarm Message**

| Type Detector | Non-Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | When detector announces “...no defects”, or when advised by signal maintainer or train dispatcher that there are no defects. | Proceed. | None |
| 5(A) | “Integrity Failure” | Stop the train consistent with good train handling. Perform a rolling inspection not exceeding 5 MPH on both sides of the train without entering or traversing protected structure. If unable to stop before a portion of the train has entered or traversed the protected structure, perform a walking inspection of that portion that is on or has already traversed the structure and perform a rolling inspection for the remainder of the train. | Report integrity failure to train dispatcher. |
| 5(A) | "Train Too Slow" with no alarm or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | None |

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| | | | |
|---|---|---|---|
| 5(B) | "Train Too Slow" or "Integrity Failure" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | Report "Integrity Failure" to the train dispatcher unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required. |

**Table No. 2 - 8(C) Alarm Message**

| Type Detector | Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(B) | "You have a defect, dragging equipment near axle XXX"<br>Or<br>"You have a defect, First wide load right/left side near axle XXX"<br>Or<br>"You have a defect, Shifted load right/left side near axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Stop immediately after post train alarm message is transmitted, or after the entire train has passed the detector if no post train alarm message is transmitted.<br>3. Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector post train alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) | "You have a defect, dragging equipment near axle XXX"<br>Or<br>"You have a defect, wide load right/left side near axle XXX"<br>Or<br>"You have a defect, shifted load right/left side near axle XXX". | 1. As soon as message "...you have a defect" is transmitted, provide warning to other trains and stop immediately.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>3. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>4. Report findings to the train dispatcher.<br>5. When the defective car(s) are set out or continue in train, notify the train dispatcher and mechanical help desk. | Detector post train alarm message may identify more than one defect. Inspect train for all reported defects before proceeding. If detector alarm message does not include axle designation, inspect both sides of entire train.<br>If train is stopped on top of the detector, a post train alarm message will be transmitted summarizing defect(s) detected followed by "Out".<br>Upon moving the train, defect detection will continue for the remainder of the consist. Additional defects may be identified and transmitted with invalid axle designation. Inspect both sides of the train from the last reported defect. |

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| | | | |
|---|---|---|---|
| 5(A) | "Hot journal right/ left side axle XXX". | 1. As soon as message "You have a defect" is transmitted, provide warning to other trains and stop immediately.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>3. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>4. Report findings to the train dispatcher.<br>5. When the defective car(s) are set out or continue in train, notify the train dispatcher and mechanical help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train.<br>If train is stopped on top of the detector, a post train alarm message will be transmitted summarizing defect(s) detected followed by "Out".<br>Upon moving the train, defect detection will continue for the remainder of the consist. Additional defects may be identified and transmitted with invalid axle designation. Inspect alarm side(s) of the train from the last reported defect(s). |

| | | | |
|---|---|---|---|
| 5(B) | “Hot journal right/ left side axle XXX” | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by “Out”. Stop immediately after the post train alarm message is transmitted or no alarm message is transmitted and the entire train has passed through the detector.<br>3. Contact NOC detector desk to initiate review of bearing profiles that caused alarm. If at any point before or during the inspection the NOC detector desk determines the stop to be invalid and releases the train, the inspection may be concluded.<br>Otherwise:<br>4. Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train<br>5. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector post train alarm message may identify more than one defect. Unless released by the NOC detector desk, inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

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| | | | |
|---|---|---|---|
| 5(A) or 5(B) | "Excessive Alarms" | 1. Inspect the indicated axle(s).<br>2. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>3. Inspect both sides of the remainder of the train from the last reported defect.<br>4. Report findings to the train dispatcher.<br>5. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Unless released by the NOC detector desk, inspect train for all reported defects before proceeding. |
| 5(A)<br>*Special condition, preparing to stop. | Post train alarm message with "Train Too Slow" is Transmitted. | If train slowed below 20 MPH while crossing the detector in preparation to stop, follow train crew actions for announced alarm message. | Report "Train Too Slow" with alarm to Train Dispatcher. |
| 5(A) or 5(B) | Post train alarm message with "Train Too Slow" is transmitted. | Inspect both sides of the entire train. | Report " Train Too Slow" with alarm to Train Dispatcher. |

**Table No. 3 - 8(C) Other Circumstances**

| Type Detector | Circumstance | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(B) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, proceed. | Report no message or incomplete message to train dispatcher. |
| 5(A) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of entire train. | Report no message or incomplete message to train dispatcher. |
| 5(B) - without recall code | No message<br>or<br>Incomplete message is transmitted. | Proceed | Report no message or incomplete message to train dispatcher. |
| 5(B) - Exception Reporting | No Message | Proceed | Do Not Report "No Message" to Train Dispatcher |
| 5(B) - with recall code Exception Reporting | Incomplete Message is Transmitted | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of train. | Report incomplete message to train dispatcher. |
| 5(B) - without recall code Exception Reporting | Incomplete Message is Transmitted | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train. | Report incomplete message to train dispatcher. |

Note: Detector message followed by the word "Out" indicates a complete message. Total axle count is not required for a complete message. If an alarm message is transmitted and it is not followed by the word "Out", the train will be governed by the Train Crew Action for that alarm message

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**8(D). Train Inspection**

When alarm message requires inspection, inspect the side of the train in the message. The reference to defect locations will be from HEAD END of train, and references to LEFT or RIGHT side are to engineer's left or right side in the direction of travel.

Determine the location of the indicated axle by physically counting axles from the HEAD END of the train, including locomotive axles. DO NOT depend on wheel report information for correct axle count. When alarm message requires, inspect indicated axle(s). If inspection does not reveal a defect, inspect 12 axles forward and 12 axles to the rear of the indicated axle. When this is necessary, inspect all 12 axles in each direction regardless of whether a defect is found before reaching the twelfth axle.

**Dragging Equipment/Shifted Load Inspection**

When a dragging equipment or shifted load alarm message is received, make a walking (trackside) inspection of the train until the inspection is complete or until an obstruction (bridge without a walkway or hazardous walking conditions) prevents further inspection. When obstruction prevents completion of inspection, move train at no more than 5 MPH to complete the inspection per GCOR 6.29.2. The train may proceed only after walking inspection confirms there is no dragging equipment or shifted load(s), defective car(s) are repaired or permission is received from the train dispatcher or manager to move the defective equipment.

**Overheated Equipment Inspection**

When an overheated equipment alarm is received, follow this procedure to inspect equipment:

- Crew member positioned on the ground must count axles.
- Move train at no more than 10 MPH until the indicated axle is near crew member or until inspection is complete.

When a train is stopped by a trackside warning device for hot journal, crew is to immediately contact train dispatcher who will relay the occurrence along with train identification and location to the NOC Detector Desk. The NOC Detector Desk will then contact the train and assist the crew with the process of inspection and identification of the suspect car. Train may not depart inspection location until NOC Detector Desk releases train from inspection and permission to depart is received from train dispatcher. The train crew must report the following to the NOC Detector Desk:

1. The axles were physically counted
2. A heat-indicating crayon or infrared device was used at the indicated axle,
   and
3. If inspection does not reveal a defect, that 12 axles forward and to the rear of the indicated axle have been inspected.

If a heat-indicating crayon or infrared device is not available, set out the indicated car.

After released by the NOC Detector Desk, contact the train dispatcher for permission to depart inspection location and to report train delay/detector stop information (i.e. axle readout, inspection result, car initial and number, journal number and size, set out location, crayon used, etc.). To contact the NOC Detector Desk, when using the 3 digit radio call-in code, use the 2 digits indicated in the timetable followed by a 5. If using the 1 digit radio call-in code, use 5.

**Freight Trains**

If no defect is found, train may continue, but crew members must closely observe indicated equipment for the next 25 miles or until inspection by hot bearing detector.

When a train actuates a wayside hot bearing detector before crew change location, the relieving crew will be advised of the equipment that activated the detector so that they can inspect the car and follow the above procedure if the equipment actuates a subsequent detector enroute.

When a freight train, other than a Key Train, is stopped by a trackside warning device and the indicated axle is on a loaded, placarded, non-intermodal car containing hazardous material, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

When a Key Train is stopped by a trackside warning device, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car (hazmat or not) must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car (hazmat or not) must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

**Passenger Trains**

If no defect is found after inspecting 12 axles forward and 12 axles to the rear of the indicated axle, inspect both sides of the entire train.

If no defect is found, train may continue, but crew must closely observe indicated equipment for the next 25 miles or until next inspection by hot bearing detector.

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**8(E). Testing Bearing Temperature**

Use a heat-indicating crayon or handheld infrared device to test bearing temperature. Test bearing temperature by stroking the heat indicating crayon on the bearing cup. A liquid smear will remain on an overheated bearing. (Determine if the bearing is hot by using a Dual Temp. 163 degree - 200 degree Fahrenheit, Mark All Thermal Melt, Millennium ordering reference no. 458304011.)

When ambient temperature is 32 degrees Fahrenheit or above, use a 200-degree Fahrenheit heat-indicating crayon to test bearing temperature.

When ambient temperature is below 32 degrees Fahrenheit, use a 163-degree Fahrenheit heat-indicating crayon to test bearing temperature.

Set out equipment with overheated bearings.

If it is safe to move equipment, set out car with an overheated bearing at a location accessible to repair personnel.

**Operating Infrared Device**

To measure a temperature, point at object and pull the trigger. Unit must be held approximately 1 – 1 ½ feet away from the journal or wheel to be measured. In order to be accurate, the target area must be at least twice as large as the spot size. Target must be free of grease or dirt. Steam, dust, smoke etc. can prevent accurate measurement by obstructing the unit's optics. Use the laser only for aiming.

CAUTION: Laser should never be pointed directly at eye or indirectly off reflective surfaces.

Point Non-Contact Thermometer (Infrared Device) at the bearing cup identified during train inspection and pull the trigger. Use laser for aiming the device. Record temperature displayed on the LCD. If temperature exceeds 180 degrees above ambient (outside) temperature, journal or wheel is considered hot and must be set out for repair. Ambient temperature may be determined by targeting any portion of the railroad car (except the wheel or journal) that has been exposed to outside air temperature. Avoid targeting the shiny surface of the wheel tread when measuring wheel for excessive temperature. Inaccurate readings will result from measuring polished or shiny surfaces. To measure wheel temperature, target the outside area of the wheel.

**Note:** When outside ambient temperature is significantly lower or higher than temperature where device is stored i.e., personal luggage or pocket, thermal shock may occur to the unit when removed from stored area. This may affect the ability of the LCD to give readout. In addition, accuracy of readout can be affected. If outside air temperature is less than 32 degrees Fahrenheit, it is recommended the device be kept in pocket until ready to target the wheel or journal to be inspected.

**8(F). Consecutive Alarm Messages**

If the same equipment is indicated by two successive hot bearing alarm messages, set out the indicated equipment. When a train actuates a wayside hot bearing detector before a crew change location, the crew being relieved will advise the relieving crew of the equipment that activated the detector. If the same equipment is indicated by the next detector with a hot bearing alarm message after departing the crew change location, set out the indicated equipment.

**8(G). Alarms Indicated on Locomotive or Caboose**

When unable to locate a defect indicated on a locomotive or caboose, notify the following:

- Connecting crew members
- Mechanical personnel
- Supervisor

Do not set out a caboose with a generator belt attached to the indicated axle unless a hot bearing, hot wheel or dragging equipment is found.

**8(H). Special Conditions**

When a hot bearing is found within 25 miles of a hot bearing or hot wheel trackside warning device, a crew member must notify the train dispatcher. The train dispatcher must notify the signal maintainer and request the TWD equipment be inspected.

When blowing or swirling snow conditions may prevent hot bearing detectors from making a proper inspection, crew members must reduce train speed to no more than 30 MPH while train is passing the detector to minimize this condition.

**8(I). High Water Detectors**

High water detectors have been placed under certain bridges and in areas where high water might occur.

A. When train is notified of high water by rotating red lights, radio message, signal indication or at a radio readout and no response is received, crew must not proceed over bridge or track until trackside examination by crew member or Engineering employee has been made to determine the following:
   - The track has not lost its normal alignment,
   - The track or bridge does not have sagging surface,
   - The shoulder ballast or ballast between the ties is not missing,
   - Water is not running between the ties, and
   - Water is not over the rail.

If inspection is made by an Engineering employee, the employee must be at the location and complete the inspection immediately before the train traverses the location. Follow up inspections must be made before each subsequent train move until the hazard is known to no longer exist. If determination cannot be made, contact train dispatcher for instructions before proceeding.

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B. Trains moving against the current of traffic must approach all locations protected by high water detectors prepared to stop unless:
- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- The shoulder ballast or ballast between the ties is not missing,
- Water is not running between the ties, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding. Note: When moving against the current of traffic and the location is protected by rotating red light or radio response, be governed by Item A above.

**8(J). Slide Detectors**

Slide detectors have been placed in certain areas where earth/rock slides might occur.

When a rock slide is indicated by rotating red light or radio message, trains must proceed at Restricted Speed AND be prepared to stop short of any obstruction through the entire slide detector area.

When train is stopped or moving at Restricted Speed because of signal indication governing movement through a slide detector, train must ALSO be prepared to stop short of any obstruction through the slide detector area.

Train dispatcher must be promptly notified if slide conditions are observed.

At locations equipped with Radio Readout type detectors, if no response is received, trains must proceed at Restricted Speed until track at this location is known to be clear of any obstruction. Train dispatcher must be promptly notified if slide conditions are observed.

**8(K). Warm Journal Detectors**

Warm Journal Detectors identify potential failure conditions in advance of actual failures using information provided only to the NOC Detector Desk, where the information is evaluated and necessary crew action is determined. When crew action is necessary, the NOC Detector Desk will coordinate through the chief dispatcher to have the train dispatcher issue required train crew action via radio. Train crews are then to contact the NOC Detector Desk and be governed by any additional instructions.

When notified by the dispatcher or NOC Detector Desk to take action relative to a "warm" bearing/journal, the train (including Key Trains or any train with hazardous material shipments) may be moved without additional restrictions to a convenient location to inspect or set out as directed.

Directed train crew action may include:

1. Perform a Set and Release of the Air Brakes:

   Perform a set and release of the air brakes (minimum of 10 psi brake pipe reduction) in an attempt to release any sticking brakes at the first convenient location consistent with good train handling. A "running release" may be performed if engineer determines conditions allow per ABTH Rule 103.3C. When a running set and release is necessary the NOC Detector Desk may contact the train crew directly with instructions.

2. Stop and Inspect a Specified Car:

   Stop and inspect specified car and be governed by instructions provided in each case by the NOC Detector Desk.

3. Set Out a Specified Car:

   Set out specified car at location as directed.

Instructions for potential failure conditions identified by the NOC Detector Desk do not supersede instructions for overheated/hot journals or defective equipment identified by other Trackside Warning Devices or visual inspections.

**8(L). Track Integrity Warning System (TIWS)**

The following TIWS instructions are in effect, unless otherwise specified in subdivision specific Timetable Special Instructions:

The Track Integrity Warning System checks the rail for continuity and alerts the Train Dispatcher to possible track occupancies or defects (e.g. broken rail) in non-signaled territory.

Subdivisions where TIWS is in effect are divided into a series of "zones" displayed by the Train Dispatcher's control system and identified in the field by Mile Post signs, Siding Switch signs, or a combination of these signs. Mile post signs identifying boundaries of a "Zone" may be displayed in tenths of a mile. Example: MP 926.3.

Track authority limits may be designated by MP signs representing "Zone" limits.

Alerts will be generated to the train dispatcher when occupancy is detected within a zone(s) not corresponding in proper sequence with an authority issued on that segment of track. Such alerts are referred to as "Track Integrity Down" (TID) and will be communicated by the Train Dispatcher to trains authorized within the zone(s).

Verbal instructions for "TID" may be provided to trains closely approaching the TIWS zone when an alert is received.

A new authority including "TID" information will be issued to trains not closely approaching an alerting zone. "Track Integrity Down" will be abbreviated as "TID". Following are examples of a "TID" communicated by Track Authority:

"TID MP 1011.3 to MP 1015.8" or "TID WSS Baker"

Trains receiving notification of "TID" must move at Restricted Speed within the designated zone limits and/or over a designated switch.

**8(M). Wheel Impact Load Detector (WILD)**

A Wheel Impact Load Detector (WILD) monitors passing trains for wheel defects which are categorized as Level 1 or Level 2. When a train passes over the detector, WILD installations equipped with field radio broadcast capability will transmit a radio message only when a defect has been identified, followed by the word "out". WILD installations with radio broadcast capability will be identified in the timetable.

**Level 1**

When a Level 1 defect is identified by a WILD with radio broadcast capability, a radio message will be transmitted indicating "you have (number of defects) defects", "Train (lead locomotive number)". After a brief pause, the detector will then broadcast details regarding right or left side, axle count from head end of the train and car number for the defect identified. Required train crew actions for Level 1 defects:

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- Record the information transmitted by the detector.
- Stop train and notify the train dispatcher of the delay due to required WILD Level 1 inspection.
- Inspect the axles identified for defects.
- If no defect is found, inspect 12 axles forward and 12 axles backward from the axles identified.
- Notify the dispatcher of the conditions found.
- Train may not depart from the inspection location until released by the detector desk and permission to depart is received from the train dispatcher.

If a defect message is incomplete or cannot be understood, enter the recall code. If message recall is unsuccessful, notify the train dispatcher and proceed with no restriction.

**Level 2**
Level 2 condition information is monitored by the detector desk and is used for predictive maintenance purposes only. The WILD will not transmit Level 2 detail by radio.

**9. Amtrak Instructions**

BNSF dispatchers must have General Track Bulletins (GTB) issued at least one hour before trains departure. If the Amtrak train crew does not have the GTBs 45 minutes before trains departure they must contact the dispatcher immediately. If unable to contact the dispatcher for GTBs 35 minutes before train departure, train crew must contact the BNSF Passenger Operations Team at 1-800-871-0902.

Dispatcher must be notified immediately when train does not maintain maximum authorized track speed.

Dispatcher must be notified immediately when crews experience rough track conditions stating limits and severity. This same information must be documented on the conductor delay report

No trash may be discarded on BNSF property.

**Station and Reporting Times**
Station work must be done in an expedient manner to avoid exceeding station dwell times. If station work is anticipated to exceed scheduled dwell time by more than 5 minutes, sufficient advance notice must be given to the dispatcher to eliminate or minimize train delays.

**Amtrak Trains Reporting Clear/Releasing Track Warrants**
Engineer and conductor are jointly responsible, through job safety briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant. When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Communication will use the following format:
  Crew member will state: "(Name), locomotive initial, number, (direction), reports clear of (mile post/location) (Provide switch briefing when required). Over."

  Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct. Over"?

  Crew member will state: "Job safety briefing between conductor (name) and engineer (name) confirm, that is correct. Over".

**Equipment**
Unless otherwise provided, equipment that cannot be safely operated at maximum speed must be set out at first available location unless train can arrive at final destination in less time than would be required to make the set out.

- Maximum speed for freight locomotives in Amtrak service is 70 MPH.
- Double stretch is required after pick up or set out of cars or locomotives.
- Required hand tools and supplies must be available on locomotive.
- Required switch keys must be in possession of Engineer and Conductor.
- Amtrak may not exchange or discharge passengers between trains except at stations.
- Amtrak may not exchange supplies between trains except at stations unless authorized by train dispatcher.
- Amtrak train garbage/refuse to be off loaded must be loaded into approved containers and only at stations that have assigned Amtrak employees or caretakers.
- Amtrak toilets must be discharged into appropriate containers. Dumping of toilets from Amtrak trains on BNSF right of way is prohibited.

**Head End Attendance**
The head end of all occupied passenger trains must not be left unattended for any reason while occupying Main Track or siding. At crew change locations the engineer's job safety briefing will take place in the locomotive cab or controlling compartment of cab control car. If the outbound crew is not on spot at a crew change location on arrival, the inbound engineer will remain on the head end until the outbound engineer arrives.

**Head End Power (HEP) Requirements**

- Departure from the originating station with the HEP cables short looped is prohibited.
- In the event of HEP failure, crew members must determine if the train may be handled safely and must make every effort to advance the train to the next siding or scheduled stop before repairs are made.
- All HEP cables must be secured with approved tie-downs.
- Air hoses and HEP cables must be secured no less than 4 inches above the top of the rail.

**BNSF Crews Operating Amtrak Trains**
When a BNSF crew operates an Amtrak train, a freight locomotive must be used. Amtrak personnel must handle all 480-volt AC power and set up Amtrak locomotives in the trail position. BNSF crews are prohibited from handling, adjusting or performing work between or under cars when Head End Power (HEP) 480 volt AC is energized. A freight locomotive will not be necessary when BNSF engineer is accompanied by an Amtrak qualified engineer or qualified Amtrak supervisor.

**BNSF Mechanical Assistance**
When mechanical problems develop the train dispatcher must be notified immediately as described in System Special Instructions item #45 and BNSF NOC Mechanical Desk notified if assistance is required. The delay for mechanical problems must be documented properly on the delay report.

**Conductor Delay Reporting**
The Amtrak conductor delay reporting method has been replaced with an electronic method. The electronic delay report (EDR) is essential to both Amtrak and BNSF. If the train operates on a route requiring EDR, the delay information must be reported no more than two hours after the train arrives its destination or at a crew change location.

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The reporting must be professional, brief, specific, and worded clearly and concisely. Each individual reason for delay must be separated from other delays. The reporting must include, in order of occurrence, the following:

- Any delay due to the inability to maintain maximum authorized passenger train speed.
- Reasons for delay over dwell times identifying specific cause of delay (passengers, baggage, late bus connections, mechanical issues, etc.).
- Delays associated with field equipment detectors. These delays require that specific information be given, even if no defect is found. Information as to the location of the defect, Car/Locomotive initial and number, axle and journal if applicable, and reason for inspection and defect, if any found.
- Amtrak instructions regarding authorization to hold or delay train, including reason.
- Delays caused by operating with one engineer.
- Delays caused by late General Track Bulletins.
- If the conductor manually changes electronic time, an explanation of the reason for change must be included within the EDR.

Reporting is required on all trips, including special trains, deadhead moves and trains terminated short of destination.

**Signal Awareness Forms**

Passenger train conductors and crew members are exempt from special instructions Item 43 unless they are in the controlling unit or the cab room of the controlling cab car and there is more than one crew member in the controlling unit or cab room of the controlling cab.

**10. Storage of Cars Within Restricted Limits or Yard Limits In Non-Signaled Territory**

Within restricted limits or yard limits in non-signaled territory, the Main Track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on Main Track in such territory, they must be protected by track warrant or track bulletin. This does not modify requirements of GCOR 6.13 or 6.14.

**11. Shunting the Track**

**Commodities Insulating Track**

Employees should be alert for insulating commodities such as clay, chips, oil, etc. on top of rails, or leaves covering the rails. This condition could possibly insulate the track and cause loss of train shunt. Such conditions should be promptly reported to the train dispatcher. When conditions are reported, trains must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**Movements Consisting of Less Than 12 Axles**

In CTC, manual interlocking, or ABS territory, a crew member must inform the train dispatcher/control operator, of train/engine movement consisting of less than 12 axles so that protection against loss of shunt can be provided. Train, engine and other such movements consisting of less than 12 axles must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**12. Switch Control/Monitoring Systems**

**12(A). Turnouts Equipped with Two Switch Machines (Movable Point Frogs/Swing Nose Frogs/Derails)**

Locations where turnouts are equipped with two switch machines will be identified under individual subdivision special instructions. When dual control switches equipped with two switch machines are operated by hand, the switch machine which operates the switch points and the switch machine which operates the movable point frog, swing nose frog, or derail must both be placed in hand operation.

GCOR/MWOR 9.13.1 applies at all locations where turnouts are equipped with two switch machines (movable point frogs/swing nose frogs/derails).

**12(B). Remote Control Power Switch (RCPS)**

Remote Control Power Switch (RCPS) allows the train dispatcher to request that the switch be lined and monitor switch position in non-signaled territory. The location of RCPS will be designated in the timetable. RCPS limits are designated by signs and the limits must not be occupied unless authorized. Track authority will authorize use of RCPS limits at each end of authority in the following manner:

"Switch - Yes" indicates that the authority includes the RCPS limits designated by signs in the field.
"Switch - No" indicates that the authority does not include RCPS limits and movement must stop short of sign designating RCPS limits.

If the train dispatcher cannot line the remote control power switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the train dispatcher must instruct the employee to operate the switch by hand. Movement may then proceed to that switch. Before passing over the switch, movement must stop and the employee must operate the switch by hand.

To operate a remote control power switch by hand:

- Obtain permission from the train dispatcher.
- Unlock the switch lock.
- Place the selector lever in the HAND position.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until at least one unit or car has passed over the switch.

The following information and instructions apply when the RCPS system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status to indeterminate/out of correspondence.

When an alert is received, the train dispatcher must promptly determine the location of the train with authority over the alerting switch and do the following:

- If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching (less than 7 miles) the alerting switch, the train dispatcher must instruct the crew to stop their train, consistent with good train handling, if possible, before traversing switch.
- If the train is not closely approaching the alerting switch, but it is more than seven miles from alerting switch, the train dispatcher is required to issue a new authority to the affected train that voids the authority over the alerting switch and ends at the alerting switch.

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**RCPS Position Indicator**

| | |
|---|---|
| Green | Switch lined and locked for Main Track movement |
| Yellow | Switch lined and locked for movement to or from Main Track |
| Dark (not illuminated) | Switch not locked, or selector lever in "hand" position. Contact train dispatcher and obtain permission to hand operate the dual control switch. |

RCPS position indicator lights do not authorize movements to occupy the limits between the RCPS signs governing the switch.

**12(C). Switch Point Monitoring System (SPMS)**

Switch Point Monitoring System (SPMS) is a program that will alert the dispatcher that a Main Track switch may not be properly lined for an approaching train in non-signaled territory. SPMS locations will be designated in the timetable.

The following information and instructions apply when the system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status from the normal position. Alerts will occur if a switch is reversed or its position becomes unknown (indeterminate).

Exception: An alert will not occur for trains operating with a proceed track authority (box 2) for switches located in the "from" and "to" locations of their authority.

When an alert is received, the train dispatcher must do the following:

- Promptly determine the location of the train with authority over the alerting switch. If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching the alerting switch, the train dispatcher may notify the crew verbally using the appropriate verbiage in the dialog box presented.
- If the train is not closely approaching the alerting switch, the train dispatcher is required to issue a new track authority to the affected train that restricts authority to the alerting switch.

  Note: Work between (box 4) authority for trains must end at any indeterminate switch. Authority may be issued beyond the indeterminate switch only after employee has verified that the switch is in the normal position by performing an on-ground inspection.

The dispatcher is prohibited from issuing two work between (box 4) track authorities to the same train that make the limits of authority end-to-end.

For example, do not issue track authority #1 with work between (box 4) from Anna to Bess and track authority #2 with work between (box 4) from Bess to Cloy.

Information received from the Switch Point Monitoring System must not be used to change the position of a Main Track switch that is protected by a track authority under the Protect Open Switch rules (GCOR 8.3, MWOR 8.3, and TDOCOM 42.19).

When a train crew is notified to be prepared to stop at an alerting switch, (either verbally or with a track authority), the train must not proceed over the switch until a crew member inspects the switch from the ground. The position of the switch must be reported to the train dispatcher as soon as possible after the inspection.

Maintenance of Way (MW) employees must have permission before operating an equipped Main Track switch. When Form B authority is in effect, the foreman or employee(s) working under the Form B must notify the dispatcher when opening any equipped Main Track switch(es).

When a MW employee receives a track authority with "Be prepared to stop at (location) until known to be in the normal position, the dispatcher must not indicate the switch to be "normal" unless the reporting employee has traversed the switch in Main Track to Main Track movement with on-track equipment and is physically at the switch.

The dispatcher must not "normal" an alerting switch until it has been inspected by a field employee.

**12(D). Independently Controlled Switches (ICS)**

Independently Controlled Switches are dual control switches of a crossover which, under certain conditions prescribed by the rules, may be operated independently. At locations identified in the timetable as having independently controlled switches, Maintenance of Way employees may request control operator permission to operate one end of a crossover for maintenance or testing purposes only.

**12(E). Protect Open Switch (POS)**

In non-signaled territory, track warrant authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

In ABS territory, track warrant work between authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

(Note: A train stopped short of the switch for topographical reasons, i.e., road crossings, grade considerations, etc., may be considered as stopped at the switch for application of this process).

**13. In Effect on BNSF Railway**

- General Code of Operating Rules, Eighth Edition, in effect April 1, 2020
- Maintenance of Way Operating Rules, in effect January 1, 2018.
- Air Brake and Train Handling Rules, in effect February 1, 2018.
- Train Dispatcher's and Control Operator's Manual, in effect November 1, 2020.
- TY&E Safety Rules, in effect August 4, 2021.
- Maintenance of Way Safety Rules, in effect August 4, 2021.
- Employee Safety Rules, in effect August 4, 2021.
- Mechanical Safety Rules, in effect August 4, 2021.
- United States Hazardous Material Instructions for Rail in effect June 1, 2021.
- 2020 Emergency Response Guidebook.
- BNSF Chicago Passenger Operations Manual No. 5, in effect May 14, 2021.
- Canadian Rail Operating Rules, in effect October 14, 2015. (For use in Canada only.)
- Remote Control Operating Instructions, in effect December 14, 2016.
- PTC Interoperability Instructions, in effect September 1, 2019 (For use by BNSF TYE crews operating on PTC interoperable routes.)
- BNSF Seattle Passenger Operations Manual No. 2, in effect April 1, 2019.

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**In Effect While Operating on Foreign Railroads:**
The following System Special Instruction items must be complied with by BNSF crews operating over a foreign railroad:

- Item 6. Work Order: Instructions for Reporting Work
- Item 27. Cars Set Out Bad Order
- Item 28. Grade Crossing Accidents
- Item 35. Switching and Handling Business Cars
- Item 43. Signal Awareness/Position of Switch Form
- Item 45. Network Operations Center Notification Requirements
- Item 49. Responsibilities and Certification
- Item 50. Rail Security Sensitive Material (RSSM) Instructions Chain of Custody Documentation for Rail Sensitive Material

**Detour Train Documents**

- When a foreign railroad detours trains on BNSF, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- When BNSF detours trains on a foreign railroad, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- The train list and hazardous material information must remain on the lead locomotive at crew change points.
- Detoured train documentation is not interchanged to the handling road's computer system.

**14. General Code of Operating Rules, BNSF Amendments and Supplements**

**GCOR 1.10**—is changed to read:

**GCOR 1.10 Games, Reading, or Other Media**

Employees on duty must not:

- Play games
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices)
  or
- Read magazines, newspapers, or other literature not related to their duties when:
  - On a moving train or locomotive unless deadheading in the cab of a non-controlling locomotive
  - Any crew member is performing safety related activities
  or
  - It would delay or interfere with required duties.

When use is not permitted, magazines, newspapers or other literature not related to duties must be stowed out of sight.

**GCOR 1.17 Hours of Service, Supplemental Instruction**

When reporting hours of service, time spent waiting for deadhead transportation must not be counted when determining time on-duty for hours of service purposes when relieved of all duties.

**GCOR 1.37 Open Top Loads**—is changed to read:

Flat cars, open top cars, and open TOFC/COFCs with loads which protrude beyond the car ends or if shifted, would protrude beyond the car ends must not be placed in trains next to the following if train length and makeup permit:

- Occupied outfit car
- Passenger car
- Engine
- Caboose
- Shipment of automotive vehicles or machinery that is not fully enclosed

This restriction does not apply to cars equipped with chains or cables securing the load to the car.

**GCOR 1.43 Stopped in Tunnels**—Under A. Engine or Train Stopped in Tunnel:

That part reading:

4. Apply hand brakes to prevent movement in case the air brakes leak off.

Is changed to read:

4. Secure required number of cars to prevent movement in case the air brakes leak off.

**GCOR 1.46 Duties of Yardmasters**—the following is added:

At the end of each shift, the yardmaster must make a transfer, filling in all the required information, including:

- All grade crossing warning devices out of service
- Any undelivered Track Bulletin Restrictions
- Any tracks, switches, or other infrastructure out of service
- Any other conditions or issues which may affect the safe and efficient management of the yard.

If the office has more than one shift, the yardmaster being relieved will remain until the relieving yardmaster understands, accepts, and acknowledges the transfer.

The transfer must be documented in Yardmaster Transfer in YDS. If TSS is not available, the transfer must be documented in writing and maintained for 30 days.

**GCOR 1.47 Duties of Crew Members**—Item C, All Crew Members' Responsibilities, the following is added to Item 2:

Crew members must not use binoculars or similar devices to determine the position, aspect, or indication displayed by a fixed signal.

**GCOR 1.48 Time, Supplemental Information**

Dial 8-998-8463, 8-WWV-TIME, or 8-435-6000 to obtain coordinated universal time signal.

**GCOR 2.14.1 Verbally Transmitting and Repeating Mandatory Directives**

**Supplemental Instruction**

Apply the following when verbally transmitting and repeating a mandatory directive identified by numbers separated with a hyphen:

- State the first number, then state or spell each digit separately for that number.
- State the hyphen as "dash".
- State the second number, then state or spell each digit separately for that number.

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5."

Employees repeating the initial transmission of the mandatory directive must repeat the number in this same format.

**Supplemental Information**

When authorities are repeated precisely as they are transmitted, the Control Operator / Train Dispatcher is able to follow the words when checking the repeat for accuracy. When authorities are not repeated properly, it is more difficult for the Control Operator / Train Dispatcher to follow the repeat process.

Employees are expected to repeat authority precisely as it is recorded on the authority form. All words which are on the form or shown in the examples must be repeated in the proper order and without adding or deleting words.

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Employees will be given three chances to repeat an authority properly. If unable to repeat properly after three attempts, the Control Operator / Train Dispatcher will stop the authority and the employee will not be given additional authority until a supervisor has been contacted.

**GCOR 2.14.2**—The following rule is added:

**GCOR 2.14.2 Before Reporting Clear of Authority Limits**

Before a field employee reports clear or releases a portion of authority limits, and the Train Dispatcher/Control Operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the Train Dispatcher/Control Operator.
- The Train Dispatcher/Control Operator will have the required form or computer screen displayed for data entry and confirmation.
- The Train Dispatcher/Control Operator and employee will carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct.

**GCOR 2.21**—is changed to read:

**GCOR 2.21 Electronic Devices**

This rule outlines the requirements for use of electronic devices. As used in this rule, the following definitions apply:

**Electronic Device**—means an electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety-related task.

**Railroad Operating Employee**—means an individual who is:

- Engaged in or connected with the movement of a train including a hostler,
- A train employee providing commuter or intercity rail passenger transportation,
  or
- Subject to hours of service governing train service employees.

The use of any electronic device is prohibited if that use would interfere with an employee's performance of safety-related duties.

**A. Personal or Railroad-Supplied Electronic Devices**

Personal or railroad-supplied electronic devices may be used as necessary:

- To respond to an emergency situation involving the operation of the railroad
- To respond to an emergency encountered while on-duty
- As a communication device in the event of radio malfunction
- To refer to a railroad rule, special instruction, timetable or other directive using the digital storage and display function while inside the controlling cab of a locomotive, train or on-track equipment after there has been a job safety briefing and all crew members agree that it is safe to do so.

Other than railroad operating employees may use electronic devices in the body of a business car or passenger train when it will not interfere with an employee's performance of safety-related duties.

Except as otherwise authorized, the use of any audio or video recording device to record communications by or between employees is strictly prohibited without the prior knowledge and express consent of all parties to the communication.

**B. Personal Electronic Devices**

Except when deadheading in other than a controlling locomotive, railroad operating employees on-duty (including supervisors) must have each electronic device turned off and stowed out of sight with any earpiece removed from the ear when:

- On moving rolling equipment or on track equipment unless device is being used to reference a railroad rule, special instruction, timetable or other directive,
- Any member of the crew is on the ground performing safety-related duties,
  or
- Any employee is assisting in preparation of the train, engine(s) or on-track equipment.

A railroad operating employee may use an electronic device when:

- Rolling and on track equipment is stopped,
- A job safety briefing is conducted with all crew members to confirm that it will not interfere with any safety-related or required duty,
- No member of crew will foul any track.

When device is not in use it must be off and stowed out of sight.

A personal stand-alone camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- A job safety briefing is conducted among all crew members and any other individuals in the controlling cab of moving equipment,
- It is turned off immediately after the photograph has been made;
- It is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

**C. Railroad-Supplied Electronic Devices**

After a job safety briefing including all members of the crew determines railroad-supplied devices can be used safely, railroad operating employees may use such devices to send or receive work related information with:

- Railroad supervisors
- Railroad customers
- Railroad dispatchers
- Railroad customer service employees
  or
- Other railroad employees as necessary in the performance of their duties.

Railroad operating employees must not use a railroad-supplied electronic device for purposes other than which it was intended or while:

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- Operating the controls of a moving locomotive unless device is being used to reference a railroad rule, special instruction, timetable or other directive.
- On the ground within 4 feet of any track.
- On the ground and engaged in an active switching operation.
- Riding rolling equipment during a switching operation.
- At the controls of the locomotive and any other employee is assisting in the preparation of the train, engine(s), or on-track equipment, including testing of railroad equipment or brakes.
- Inside the controlling cab of a locomotive, train or on-track equipment, unless there has been a job safety briefing and all crew members agree that it is safe to do so.
- Verbally obtaining or releasing mandatory directives when railroad radio communication is available.

A railroad-supplied electronic device may be used to take a photograph pertaining to authorized business purposes that include a potential safety hazard, violation of a rail safety law, regulation, order or standard; or conditions that prevent a train crew from accessing and performing work at a customer facility provided that:

- Train is stopped.
- A Job Safety Briefing is conducted including all members to confirm that it is safe to do so.
- If the crew member taking the photograph is on the ground they cannot be within 4 feet of any track.

**GCOR 4.3 Timetable Characters, Supplemental Instruction**

A.....Automatic Interlocking
B.....General orders, notices, and circulars
C.....Radio communication
g .....Gate, normal position against conflicting route
G.....Gate, normal position against this subdivision
J.....Junction
M .....Manual interlocking
P.....Telephone
R.....Restricted Limits
S.....Railroad crossing protected by permanent Stop sign
T .....Turning facility
U.....Railroad crossing not protected by signals or gates
X.....Crossover
X(2).....Multiple crossovers
Y.....Yard Limits

**GCOR 5.3.3 Signal Disappearance**—is changed to read:

If a person disappears who is giving the signal to back or shove a train, engine, or car, or the light being used disappears, employees must stop movement.

**GCOR 5.4.2 Display of Yellow Flag**—"Less than Two Miles Ahead of Restricted Area" under "A. Restriction is in Effect" is changed to read:

**Less than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, junction, or another area or if restriction is on a siding, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**GCOR 5.4.6 Display of Flags Within Current of Traffic**—this rule is canceled.

**GCOR 5.4.8 Flag Location**—the first paragraph is changed to read:

Flags will be displayed on all Main Tracks and sidings leading to the track affected.

**GCOR 5.5 Permanent Speed Signs, Supplemental Instruction**

Reduced speed limits may be designated by Advance Warning sign (diagonally upward), Reduce Speed sign (rectangle) and Resume Speed sign (vertical).

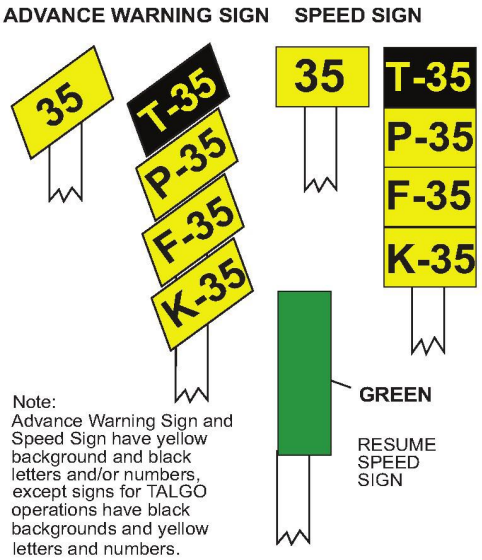
The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction. Signs reading "K-END" indicate the end of Key Train municipal area limits. Resume speed signs are not displayed at the end of Key Train municipal area limits.

Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision.

Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.

These signs, as illustrated, apply to train and engine movements as follows:




Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures preceded by the letter K apply to Key Trains.

Figures not preceded by a letter apply to all trains.

**GCOR 5.8.1 Ringing Engine Bell**—the following is added as a fourth bullet:

- When whistle signal (7) is required.

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**GCOR 5.8.2 Sounding Whistle**—the Indication for Sound (8) is changed to read:

| Sound | | Indication |
|---|---|---|
| (8) | — o | Regardless of any whistle prohibitions:<br>Approaching men or equipment or other individuals on or near the track.<br>After sounding initial warning for men or equipment or other individuals, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment or other individuals.<br>Whistle warning is not required:<br>• When there is an adjacent track and men or equipment or other individuals are beyond the farthest rail of the adjacent track.<br>• For members of the same crew associated with movement of their engine unless necessary to warn or alert a crew member<br>Do not sound whistle in designated mechanical servicing and repair facilities, unless for an emergency or when approaching roadway workers. |

**GCOR 5.8.4 Whistle Quiet Zone**—the following is added:

An employee may sound the train horn to provide warning to crews on other trains in an emergency situation, vehicle operators, pedestrians, trespassers or animals if, in the employee's sole judgment, such action is appropriate to prevent imminent injury, death, or property damage. Train crews are not restricted from sounding the horn when:

- There is an emergency situation.
- A wayside horn system (WHS) is malfunctioning.
- Active grade crossing warning devices malfunction.
- Grade crossing warning systems are out of service.
- Supplemental or alternative safety measures are not compliant.
- Needed for purposes other than highway-rail crossing safety, for example, to announce the approach of a train to roadway workers.

All other whistle and bell requirements remain in effect.

**GCOR 5.9.1 Dimming Headlight**—is changed as follows:

1. is changed to read:
   1. At stations and yards where switching is being done. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).
3. is changed to read:
   3. When stopped on the main track waiting for an approaching train. However, when stopped in block system limits, turn the headlight off at the radio request of the crew of an approaching train until the head end of the train passes. After head end of approaching train passes, turn headlight on bright while the train is passing.
4. is changed to read:
   4. When approaching and passing the head end of a train at night. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).

**GCOR 5.11 Engine Identifying Number**—the following exception is added:

Exception:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by train symbol.

**GCOR 5.11 Engine Identifying Number, Supplemental Instruction**

Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines:

SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines:

CSXT, CSX and CSX Transportation.

Where PTC is in effect, passenger trains operated from a cab control car on the leading end of the movement will be identified by the cab control car initials and number, adding the direction when required.

Metrolink engines or cab control cars with no initials stenciled on the side will be identified as SCAX units.

**GCOR 5.13 Blue Signal Protection of Workmen**

**Item B. How to Provide Protection**—is changed as follows:

On a Main Track is changed to read:

**On a Main Track.** A blue signal must be displayed at each end of the rolling equipment and, if the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Section titled **On Other than a Main Track** is changed as follows:

The following is added after item 1:

Use the following sequence when applying blue signal protection:

a. Line and lock the switch
b. Display blue signal at or near the switch and;
c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at or near the switch
c. Remove the lock from the switch and replace the hook or hasp, if equipped.

Item 2 is changed to read:

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
   a. Positioned at least 150 feet from the rolling equipment to be protected.
   or
   b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.

   Use the following sequence when applying blue signal protection:
   a. Lock the derail in the derailing position
   b. Display blue signal at the derail and;
   c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

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Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at the derail
c. Remove the effective locking device from the derail and ensure derail is in the proper position.

The following is added to the end of item 3:

After the switch operator informs the employee in charge of workmen that switches have been lined against movement onto track and devices controlling the switch have been secured, display required blue signals on controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signals from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Employee in charge to notify the switch operator when it is safe to remove switch-locking devices.

**Item C. Blue Signal Readily Visible to Engineer**—Item 3 is changed to read:

3. The engine must not be moved. The controls must not be changed unless directed by individuals who placed the blue signal protection.

**GCOR 6.3 Main Track Authorization**—the paragraph titled Joint Authority is deleted, and the following is added:

**Overlapping Limits**
When a train receives track and time, track warrant or track permit authority joint with an employee the train must not occupy the overlapping limits until permission is received to enter the overlapping limits from the employees listed on the authority.

**GCOR 6.5 Shoving Movements**—is changed to read:

Shoving cars or engines ahead of an engine must be performed by an employee visually observing the intended route while communicating instructions with the employee controlling the engine to ensure safe operation.

A GCOR qualified employee must protect the shove movement by:

- Visually observing the leading end of the movement to determine that switches and derails are properly lined, and the route is clear for the intended movement.
- Communicating instructions including a distance that specifies where the movement must be prepared to stop. (e.g., stop for misaligned switch, controlling speed for conditions, etc.)

Employees are encouraged to communicate additional information related to the shoving movement (e.g., close clearance conditions, stop signals, authority limits, etc.)

When communicating distances:

- Use 50 feet as a standard for one car length
- Provide instructions that allow for control of the movement (e.g., controlling speed for conditions, etc.)
- Use a number of car lengths that is no greater than the portion of track that has been determined to be clear, and represents where movement must stop for improperly lined switches/derails, on-track equipment, etc.

When communicating with a radio:

- The employee observing the leading end of the movement must inform the employee at the controls of the engine who is protecting the movement and how the protection will be provided (e.g., Conductor Smith on the ground, riding equipment, riding in vehicle, camera, etc.), and specify a distance.
- Direction will be described in relation to the front of the controlling locomotive (F stencil). Use the following terms:
  - "Ahead" to move forward
  - "Backup" to move backward
  - "Stop" to stop the movement

  Do not use terms such as "Good For", "Shove", Bring 'em this way", "That'll do", etc., in place of "Ahead", "Backup" or "Stop".

The following are required of the employee controlling the engine:

- Before beginning a shove movement, must know who is protecting the movement and how protection will be provided
- Before beginning a shove movement, must repeat by radio the instructions received from the employee providing protection.
- When moving, must verbally acknowledge radio instructions by repeating the distance communicated when more than four cars.
- Movement must be stopped within half of the distance specified unless additional instructions are received.

Employees involved in the shove movement must not engage in any activity unrelated to the shove. (e.g., unrelated communication, operating a switch not part of the intended route of the shove, etc.).

An employee is not required to be in position to observe the leading end of the movement when:

- Relieved by local instructions for tracks equipped with shove lights/ cameras.
- Relieved by special instructions specific to tracks involved.
- During GCOR 6.6 Back Up Movements.
- During pullout moves within an activated Remote Control Zone (RCZ).
  or
- Moving cars only the distance necessary (not exceeding 5 car lengths) to operate an uncoupling lever for the purpose of kicking cars. It must first be verified that the track is clear and switches and derails are lined for the movement.

When cars or engines are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.

When engaged in snow plow operations:

- One common authority may be used by both Maintenance of Way employees and the train crew when all employees are on the equipment.
- Maximum timetable speed applies unless a higher speed is authorized by the employee in charge.
- Employees are relieved from providing visual protection for snow plow being shoved.

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**GCOR 6.5.1 Remote Control Movements**—is changed to read:

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading engine in the direction of movement. The remote control operator protecting the shove movement must be the controlling operator and in position to visually observe the direction the equipment moves before initiating the movement.

Exception: After conducting a job briefing with the employee who will be protecting the shove, the controlling operator is not required to transfer control when:

- Stretching a track to ensure couplings are made.
- Separating equipment to make coupler adjustments.
- Shove is protected by a non-equipped individual, such as a utility person

When requesting pin slack, the employee uncoupling the equipment is not required to be the controlling operator

**Pullback/Stop Protection (PSP)**
When Remote Control Zone is equipped with pull back/ stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden.

**Relief of Providing Protection**
The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when a qualified employee who is a part of the RCO crew has performed the following:

1. Verify switches/derails are known to be properly lined.
2. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.
3. Once steps 1 and 2 are completed and all crew members have been briefed, the zone may be activated.

Note: These steps must be repeated each time the remote control zone is activated.

**GCOR 6.6 Back Up Movements**—is changed to read:

After obtaining permission from the train dispatcher, a train may back up on any Main Track or on any track where CTC is in effect under the following conditions:

1. The train dispatcher must verify the following within the same or overlapping limits:
   a. Another authority is not in effect unless conflicting movements are protected.
   b. A track bulletin Form B is not in effect.
   c. A Main Track is not removed from service by a track bulletin.
   d. Permission to leave a switch in the reverse position has not been granted.
2. The crew ensures movement will not:
   a. Exceed the limit of the train's authority.
   b. Exceed the train's length.
   c. Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
   d. Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before requesting or making a back up move, a job safety briefing between all members of the crew must be conducted that confirms:

- Train is intact, verified either visually or by determining that brake pipe continuity exists using end of train device or distributed power telemetry.
- Distance to be shoved. (Note: Train must not move outside of authority limits.)
- Distance from the end of the train to the end of authority limits is sufficient to accomplish the planned back up movement (E.g. 30 cars from the end of the rear car to next controlled signal or 30 cars from the end of the rear car to MP 30, where track warrant authority ends, etc.).
- Location of nearest affected road crossing in direction of movement.
- Movement will not be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before permission is granted, a job safety briefing between a crew member and the train dispatcher or control operator must determine what track authority is needed to accomplish the planned movement. If additional track authority is necessary to make the 6.6 movement, a crew member must request additional authority.

When movement is made under these conditions, Restricted Speed does not apply.

**GCOR 6.7 Remote Control Zone, A. Entering Remote Control Zone**—is changed as follows:

The 2nd paragraph is changed to read:

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated.

The 3rd paragraph is deleted in its entirety.

**GCOR 6.11 Mandatory Directive**—that part reading:

Indicate "VOID" on mandatory directive form when:

Is changed to read:

Where paper copies are used, indicate "VOID" on mandatory directive form when:

**GCOR 6.20 Equipment Left on Main Track**—A. Portion of Train Left on Main Track

That part reading:

- Set a sufficient number of hand brakes to keep the detached portion from moving.

Is changed to read:

- Secure a sufficient number of cars to keep the detached portion from moving.

**GCOR 6.21.2 Water Above Rail**—is changed as follows:

The 2nd paragraph is changed to read:

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, the NOC Mechanical Help Desk must authorize the movement.

**GCOR 6.21.3 Track Obstruction / Unusual Conditions**—is changed to read:

When a train is advised in the words, "Between (location) and (location) be governed by Rule 6.21.3", within the specified limits trains must:

- Not exceed 20 MPH HER,
  and
- Be prepared to stop for slides, rocks, washouts, debris or obstructions on the track.

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Train crews are reminded to regulate speed where visibility is limited (ex. curvature of track, lighting, weather, etc.) and must report to the train dispatcher conditions encountered, or if none are encountered, within the limits.

**GCOR 6.21.4**—The following rule is added:

**GCOR 6.21.4 Activation of Shifted Load or Dragging Equipment Detector**

When a train or engine actuates a shifted load or dragging equipment detector, and an adjacent Main Track or controlled siding may be obstructed, immediately:

- Warn other trains by radio, stating the exact location and status of the train and repeat as necessary.
- Place lighted fusees on adjacent Main Tracks and controlled sidings.
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

Warning to other movements is no longer necessary when:

- It is known adjacent Main Tracks and controlled sidings are not obstructed.
  or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent tracks.

**Train on Adjacent Track**
A train on an adjacent track that receives radio notification must pass the location specified at Restricted Speed and be prepared to stop for obstructions on the track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

**GCOR 6.22 Maintaining Control of Train or Engine**—A new second paragraph is added:

When following a train or engine on a Main Track or controlled siding, crew members must ensure they stop at least 400 feet behind the train or engine, if length of train permits.

**GCOR 6.23 Emergency Stop, Severe Slack Action, or Actuation of Shifted Load or Dragging Equipment Detector**—the part titled "**Inspection of Cars and Units**" is changed to read:

Visual inspection must ensure no derailment or damage has occurred to cars, units, equipment or track to the end of the train. If physical characteristics such as a bridge with no walkway prevent complete inspection, the train may be moved the distance necessary not exceeding 5 MPH to complete the inspection. Stop movement immediately if excessive power is required to start or keep the train moving and discontinue further inspection until a safe alternative to complete inspection is identified by either a job safety briefing or coordination through the train dispatcher.

Exception—The following trains (excluding key trains) are relieved of visual inspection required by emergency brake application if no severe slack action occurred while stopping and brake pipe pressure is restored as indicated by the caboose gauge, end-of train telemetry device (ETD) or distributed power telemetry:

- Solid loaded bulk commodity train,
- Train consisting entirely of doublestack and/or articulated spine car equipment,
- Any train where emergency application occurs above 20 MPH, or
- Any train that is 5000 tons or less.

Train types in the exception are relieved of further visual inspection after a defect is corrected, such as recoupling an air hose, and brake pipe pressure is restored as indicated by the caboose gauge, end-of-train telemetry device (ETD) or distributed power telemetry.

**GCOR 6.26 Use of Multiple Main Tracks, Supplemental Instruction**

Unless otherwise indicated in the individual subdivision special instructions, when using Main Tracks in westward or southward timetable direction, they will be numbered consecutively from right to left beginning from Main 1. When using in eastward or northward timetable direction, they will be numbered from left to right beginning with Main 1.

**GCOR 6.29.1 Inspecting Passing Trains**—"Ground Inspections" is changed to read:

**Conducting Inspections**

When a train is stopped and is met or passed by another train, a member of the crew must inspect the passing train. All crew members must remain alert and attentive while the inspection is being conducted.

If inspecting from the ground:

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.

**GCOR 6.32.2 Crossing Warning Devices (Highway/ Pathway - Rail Grade Crossings), Supplemental Instruction**

In the application of this rule, a crossing having a broken gate(s) is to be considered as having working devices when the balance of the automatic warning devices are seen to be working. Movement may proceed over the crossing at 15 MPH without stopping.

**GCOR 7.6 Securing Cars or Engines**—is changed to read:

Do not depend on air brakes to hold a train, engine or cars in place when left unattended. Engineer and conductor are jointly responsible, through a job briefing, to ensure equipment left unattended is properly secured and a sufficient number of cars have hand brakes applied to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, secure enough cars by applying hand brakes to prevent any remaining cars from moving.

**GCOR 7.7.1 Gravity Switch Moves**—is changed to read:

A gravity switch move is permitted only at locations where specifically indicated by individual subdivision special instructions or when approved by a supervisor due to circumstances such as mechanical failure, etc.

Before performing a gravity switch move, crew members must fully understand the intended movement. They must verify that the track is sufficiently clear and that switches and hand brakes are in working order.

When performing a gravity switch move:

- Not more than five cars may be handled at one time.
- Sufficient hand brakes must be manned by crew members to insure that the movement can be controlled and stopped.
- Using the hand brake on cars with shiftable loads must be avoided.
- Cars must not be allowed to couple to other equipment.

**GCOR 7.12 Movement Into Spur Tracks**—is deleted entirely.

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**GCOR 8.9.1 Testing Spring Switch**—That part reading:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop.
   - Stop and Proceed.
   or
   - Restricted Proceed.

Is changed to read:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop
   - Stop and Proceed
   - Restricting
   or
   - Restricted Proceed

**GCOR 8.19 Automatic Switches**—the following paragraph is added:

In non-signaled territory, when movement continues beyond an automatic switch signal displaying a Stop indication, train must move at Restricted Speed for two miles or until leading wheels pass the next automatic switch signal or opposing distant signal.

**GCOR 9.8 Next Governing Signal**—is changed to read:

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

This rule does not apply when a rule or previous signal indication requires movement at restricted speed..

**GCOR 9.9 Train Delayed Within a Block**—is changed as follows:

B. CTC or Manual Interlocking Limits is changed to read:

B. CTC or Manual Interlocking Limits

Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

**GCOR 9.11 Movement from Signal Requiring Restricted Speed**—is changed to read:

When a train passes a signal requiring movement at Restricted Speed, the train must move at Restricted Speed until its leading wheels have passed the next governing signal. When a next governing signal does not exist, trains operating on the Main Track must move at Restricted Speed for two miles or until leading wheels pass the opposing distant signal.

**GCOR 9.15.2 Clearing Track Permits**—the following 4th bullet is added:

- Position of hand operated Main Track switches.

**GCOR 10.1.1**—The following rule is added:

**GCOR 10.1.1 Leaving the Main Track**

Unless authorized by track and time, a crew member must notify the control operator when the train clears the Main Track unless a crew member is in position to prevent a following movement from passing.

**GCOR 10.3, Track and Time**—the instructions inside the box are changed to read:

| |
|---|
| Track and time does not authorize trains to occupy the Main Track within automatic interlocking limits. |

**GCOR 10.3 Track and Time, Supplemental Instruction**

**Requesting Track and Time**

The employee requesting track and time will state name, occupation, location and train or other identification. The employee will copy the authority granted on the form provided for that purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with "That is correct." The train must not move until the engineer understands the track and time granted.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing track and time, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator "That is correct," the employee must not occupy the track. The employee requesting track and time must contact the control operator as soon as possible and confirm with the control operator that the track and time was not received.

**GCOR 13.1.4 Cab Signals Cut In and Out**—is changed as follows:

The following sentence is deleted from the last paragraph:

If the device was not tested previously, the engineer must make a departure test prior to entering ACS territory.

The following is added after the last paragraph:

Note: Partial cut out requirements do not apply to engines not so equipped.

**GCOR 13.3.1 Cab Signal and Block Signal Do Not Agree**—the exception is deleted:

Exception—When the train dispatcher's instructions require the train to proceed at Restricted Speed, the train must comply with the train dispatcher's instructions regardless of cab signal indication.

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**GCOR 13.3.3 Movement with an Inoperative Cab Signal Device**—is changed to read:

When it is determined the cab signal device is inoperative, the train may proceed according to block signal indications. However, the train must not exceed 40 MPH until it reaches a point where a crew member can report the defect to the train dispatcher.

The train dispatcher will establish an absolute block in advance of the train.

**GCOR 14.3 Operating With Track Warrants**—is changed as follows:

The following is added to Items 1 and 2:

The location of the specific point must be indicated on the track warrant form.

The following last paragraph is added:

**After Arrival Authority**

When track warrant requires "After Arrival" of another train, the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the meeting point.

**GCOR 14.7 Reporting Clear of Limits**—the following paragraph is deleted:

When a hand operated switch is used to clear the Main Track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

**GCOR 14.7 Reporting Clear of Limits, Supplemental Instruction**

**Reporting Clear/Releasing Track Warrants**

Engineer and conductor are jointly responsible, through job briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant.

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Engineer and conductor will communicate with the train dispatcher.
- Communication will use the following format:

Conductor will state: "Conductor (Name), locomotive initial, number, (direction), regarding track warrant (Number), reports clear of (mile post/location) (Provide switch briefing when required) - Over."

Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct? - Over."

Engineer will state: "Engineer (name), (location) is correct. - Over."

**GCOR 14.9 Copying Track Warrants**

That part reading:

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

Is changed to read:

Where paper copies are used, the conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

**Item A. Transmitting Track Warrants**—is changed to read:

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.

3. The employee will repeat the preprinted and written information transmitted by the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following:

   "Track Warrant (number) to (engine ID) (direction) is OK at (time)(dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher,

   or

   If the track warrant includes after arrival, the dispatcher will state the following:

   "Track Warrant (number), to (engine ID) (direction) with after arrival of (engine ID) (direction) at (location) is OK at (time) (dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat the "After Arrival" information, OK time and dispatcher's initials to the train dispatcher.

   Note: The summary information in Items 1, 2, 3 and the after arrival information in Item 4 will be exempt from pronouncing and spelling numbers as indicated in GCOR 2.14.1, Verbally Transmitting and Repeating Mandatory Directives.

**Item B. In Effect**—the last sentence is changed to read:

Rules qualified employees may relay track warrants.

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**GCOR 14.10 Track Warrant in Effect**—is changed to read:

A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits. Before a train reports clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, a crew member must restore hand operated Main Track switches to normal position unless relieved by track warrant.

Employees reporting clear or releasing a portion of track warrant limits must state:

- Their name or other identification
- Track warrant number being released
- Limits being released

In non-signaled territory or double track ABS territory (outside of restricted limits or yard limits), a crew member will job brief with the train dispatcher about the position of main track switches and those switches operated are locked within the limits being released, referencing completion of the Position of Switch form or stating no entries required.

**Time Limit Shown**

If the track warrant shows a time limit, the train must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

**GCOR 14.11 Changing Track Warrants**—the last paragraph is changed to read:

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued showing, "Void Authority _____" and the number of the track warrant being changed.

**GCOR 14.13 Mechanical Transmission of Track Warrants, Supplemental Instruction**

**Mechanical Issuance**

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom,
- Computer generated line on the bottom listing the items checked is missing,
  or
- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

**GCOR 15.1 Track Bulletins, Supplemental Instruction**

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

**GCOR 15.2 Protection by Track Bulletin Form B**—the following are added:

**C. Stop Column**

When "STOP" is written in the Stop column, the train must not enter the limits unless instructed by the employee in charge. A red flag may be displayed at the beginning of the limits. A train within the limits at the time the track bulletin Form B takes effect, must not make further movement until instructed by the employee in charge.

**D. Entering Within Limits**

Before entering the track governed by the track bulletin Form B from any location other than the beginning of the Form B limits, obtain permission from the employee in charge.

**GCOR 15.2 Protection by Track Bulletin Form B**—that part reading:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. The employee in charge will use the following format to establish communication with the train:

Is changed to read:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. When possible, attempt must be made at least 2 miles in advance of the limits. The employee in charge will use the following format to establish communication with the train:

**GCOR 15.9 Mechanical Transmission of Track Bulletins, Supplemental Instruction**

Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

**GCOR 15.13 Voiding Track Bulletins**

**A. Voiding Track Bulletins Verbally**

That part reading:

Employee must repeat the information to the train dispatcher. If correct, the word "VOID" will be entered to indicate that portion is no longer in effect.

Is changed to read:

Employee must repeat the information to the train dispatcher. Where paper copies are used, if correct the word "VOID" will be entered to indicate that portion is no longer in effect.

**GCOR 15.13.1**—The following rule is added:

**GCOR 15.13.1 Voiding General Track Bulletins or**

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**Restrictions**

A bulletin or restriction or an entire GTB may be voided by the train dispatcher communicating the following:

1. "Restriction (number) ____ reading ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" in the margin to the left of the restriction made void.

2. "General track bulletin No. ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" across the first page of the general track bulletin being voided.

**GCOR 18.3 Broken or Missing Seals**—that part reading:
Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the designated authority.

Is changed to read:

Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the PTC Desk.

**GCOR 18.4 PTC Cut Out**—is changed to read:
The PTC system may only be cut out or disabled when authorized by rule or when proper authorization is received.

When permitted by the Train Dispatcher, PTC Desk or other supervisor, PTC may be cut out for, but not limited to, the following reasons:

- It becomes defective, or
- It prohibits train movement that should be allowed.

When instructed to cut out PTC or to proceed without PTC functioning as intended, notify the train dispatcher of the reason and who authorized.

**GCOR 18.9 Use of Restricted Mode**—is changed to read:
Restricted Mode must be turned on before performing work events such as:

- Switching
- Pickups, setouts, etc.
- Loading/unloading of work trains under direction of MW Employee in Charge

After all work events have been completed, turn off Restricted Mode.

**GCOR 18.12**—The following rule is added:

**GCOR 18.12 Movements with Inoperative PTC System**—is changed entirely to read:

**GCOR 18.12 Movements with Inoperative PTC System**
When the PTC system on the controlling locomotive fails to initialize or becomes inoperative, except where PTC is suspended by mandatory directive, notify the train dispatcher and PTC desk.

Maximum Speeds

The following maximum speeds will apply to movements with an inoperative PTC system.

In non-signaled territory, or when operating against the current of traffic in Rule 9.14 (Movement with the Current of Traffic) territory:

| | |
|---|---|
| Trains transporting one or more loaded cars containing TIH/PIH | 30 MPH |
| All other trains | 40 MPH |

In signaled territory:

| | |
|---|---|
| Freight trains transporting one or more loaded containing TIH/PIH | 40 MPH |
| Freight trains not transporting loaded cars containing TIH/PIH | 49 MPH |
| Locomotives without cars | 49 MPH |
| Passenger trains | 59 MPH |

**GCOR 18.13**—The following rule is added:

**GCOR 18.13 Movements Without PTC**
Freight movements engaged in:

- Yard service (including switching, transfer, local, etc.),
- Assembly or disassembly of trains,
- Hostling locomotives, or
- Remote control operations,

may operate on PTC territory without PTC if the movement:

- Originates or terminates in a yard,
- Does not travel in excess of 20 miles on PTC territory in one direction,
- Does not exceed restricted speed while on PTC territory, and
- Train dispatcher is notified.

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**GCOR Abbreviations**—the following abbreviations are added:

| | |
|---|---|
| AS | Absolute Signal |
| CNT | Connection |
| EBCS | Eastbound Controlled Signal |
| EE | East End |
| EXO | East Crossover |
| ICS | Independently Controlled Switch |
| NA | Not Applicable |
| NBCS | Northbound Controlled Signal |
| NE | North End |
| NXO | North Crossover |
| POS | Protect Open Switch |
| PTC | Positive Train Control |
| RCPS | Remote Control Power Switch |
| RESTRN | Restriction |
| RL | Restricted Limits |
| RP | Release Point |
| SBCS | Southbound Controlled Signal |
| SE | South End |
| SPMS | Switch Point Monitoring System |
| SS | Station Sign |
| SW-N | Switch No |
| SW-Y | Switch Yes |
| SXO | South Crossover |
| TFND | Track Flags Not Displayed |
| TID | Track Integrity Down |
| TIWS | Track Integrity Warning System |
| WBCS | Westbound Controlled Signal |
| WE | West End |
| WXO | West Crossover |

**GCOR Glossary**—the following glossary terms are added:

**General Track Bulletin**
A notice containing track bulletin restrictions and other conditions affecting train movement.

**Hard Cut Out (PTC)**
A state of the PTC system when PTC cut out switches are placed in the cut out position.

**PTC Full Enforcement Mode**
The status of PTC when all the following conditions exist:

- The system state is Active,
- a colored track line (other than gray) exists beneath the leading end of the movement,
- maximum speed is displayed, and
- next target or "None" is displayed.

When these conditions are met, the PTC system is actively providing warning and enforcement.

**Soft Cut Out (PTC)**
A state of the PTC system resulting from selection of the cut out key on the PTC display.

**15. Currently Not Used**

**16. Currently Not Used**

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**17. PTC - Supplemental Information**

**Locomotive Consist**

At locations where locomotive consists are assembled for trains that will operate on PTC territory, a PTC-equipped, lead-qualified locomotive must be placed in lead position. At non-PTC originating locations, departure of a train that will operate on PTC territory without a PTC-equipped, lead-qualified locomotive in lead position, must be approved by the train dispatcher.

**PTC Readiness Verifications**

At locations where locomotive consists are assembled, conduct an initialization verification and departure test on the lead unit as soon as possible. The following steps can be conducted by any trained personnel with a PTC log-in. A GTB is not required to complete this process.

1. On the PTC display, select MENU 1, then select INIT.
2. When text box displays, "THIS WILL ERASE EXISTING TRAIN DATA DO YOU WANT TO CONTINUE?" select YES.
3. On the RAILROAD SELECTION screen, highlight BNSF and select ADD, then SUBMIT.
4. The display should indicate "PLEASE WAIT FOR SYSTEM CONFIGURATION". The TMC is now establishing a connection to the office.
5. If prompted to download or install new software, follow current software deployment instructions as outlined in track bulletin.
6. When the "PRESS KEY TO ACCEPT TERMS OR CANCEL" message is displayed, the office server has established a connection. Select CANCEL. If the Accept Terms screen does not display, there is a PTC issue preventing connection to the server. Contact PTC Desk for further instructions.
7. From Menu 1, select DEPART test and follow the prompts to complete the departure test. When conducting the test, ensure the automatic brake valve is placed in Suppression, and remains in Suppression until the test is complete. Placing the automatic brake valve into any position other than suppression may nullify functions required for efficient PTC system operation.

**Restricted Speed**

PTC does not enforce all requirements of GCOR 6.27 - Restricted Speed. When required to operate at Restricted Speed, PTC enforces a speed of 20 MPH.

**Unusual Conditions**

Any train experiencing a PTC Enforced Braking Event which results in an occupied locomotive stopping in a tunnel or other enclosed structure, in addition to current instructions, immediately place Enforcement Cut Out Switches located in the nose of the locomotive to the Cut Out position. If operating conditions allow, recover brake pipe and exit the location.

Notify Train Dispatcher and contact the PTC Desk immediately and be governed by their instructions.

**PTC Desk**

The PTC Desk may be contacted by radio, or telephone 817-593-5900. When necessary to troubleshoot PTC issues, contact should be established by a crew member located on the lead locomotive (when practical).

**18. Electronic Delivery of Information**

PTC initialized trains may receive the following electronically delivered directives:

- Form A track bulletins
- Form B track bulletins
- Crossing warning notifications
- Track warrants

Train crews are responsible for complying with electronically delivered directives when:

- Notified by the prompt on the PTC display,
- Contacted by the train dispatcher confirming receipt of the directive, or
- Directives(s) remain viewable on the PTC display.

When crew members responsible for complying with electronically delivered directives are not in the controlling locomotive (such as train service employees in passenger service), the engineer will communicate to those crew members the contents of new directives as soon as practical after the prompt is received and prior to reaching the directive location.

Upon receipt of a PTC directive prompt, crew members utilizing iGTB (general track bulletins delivered via the iGTB application on the iPad) must select the refresh button. If, after selecting the refresh button the information is not viewable on iGTB, information from the PTC display must be copied on the prescribed form, verbally confirmed with the train dispatcher as outlined in SSI Item 18. (B), and the engineer must have a written copy.

**Inoperative PTC**

| Directive | Train Crew Action |
|---|---|
| Form A Track Bulletin or Crossing Warning | If PTC status changes to a condition where electronic view of directives is not available on the PTC display, be governed as follows:<br>• When directives delivered to PTC have been copied and confirmed with the train dispatcher or are viewable in iGTB, GCOR 18.12 applies. or<br>• When directives delivered to PTC have not been copied and confirmed with the train dispatcher, or are not viewable in iGTB, stop train consistent with good train handling and contact the train dispatcher to verify and determine if additional directives are needed. Once verified, crew members may proceed per GCOR 18.12. |
| Track Warrant | Stop train consistent with good train handling and contact the train dispatcher. |

**18. (A) PTC Territory**

Trains operating in a PTC active state may receive

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electronically delivered directives without verbal interaction with the dispatcher. (Note: this process does not apply to Form B Track Bulletins). Train crews must review as soon as practical and follow prompts for acknowledgment.

Directives that are delivered electronically via PTC will immediately be displayed onboard and protected by PTC on trains operating in a PTC active state. When any directive is voided in the system by the train dispatcher trains operating with PTC active will no longer display an associated target and the train crew may consider any directive, other than a Form B, no longer in effect. All Track Bulletin Form B restrictions remain in effect until they expire or are made void by the train dispatcher.

**18. (B) Non-PTC Territory**

Where taking charge of a PTC-equipped train, the PTC system on the controlling locomotive must be initialized. The train dispatcher will initiate communication that a directive has been delivered. (Note: this verbal confirmation process does not apply to Form B Track Bulletins). Because PTC is in a disengaged state, directives will not be enforced by PTC. When any directive is voided in the system by the train dispatcher, the directive will remain in effect until verbally notified by the train dispatcher.

**Authority**

Train crews will receive "delivery prompts" for track warrants. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will state the track warrant number, and if included, box 5 (after arrival). Train crew will confirm receipt of the track warrant to the train dispatcher by stating the track warrant number, limits (including track) and total number of boxes marked including which specific boxes are marked. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive track warrant 725-45 with a box 5 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive track warrant 725-45 from Anna to Bess on main track with two boxes marked, 2 and 5."*

If the train crew cannot confirm the directive is on the PTC display or if the information displayed is incorrect, the directive will be issued using the verbal transmission / repetition process. Dispatcher will notify the PTC desk.

**Restrictions**

Train crews may not always receive "delivery prompts" for restrictions. It may be necessary to select "view bulletins" on the PTC display to locate the restriction being confirmed. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will contact the train crew and state the restriction number or milepost(s) that restriction applies to. The train crew will confirm receipt of the restriction to the train dispatcher by stating the restriction number (where applicable), milepost(s), speed (where applicable) and track on which the directive applies. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive form A track bulletin 1355 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive form A track bulletin 1355 from MP 181.0 to MP 181.5, 10 MPH on main track ".*

**19. Currently Not Used**

**20. Currently Not Used**

**21. Currently Not Used**

**22. Remote Control Operations**

- Employees assigned to a remote control crew are governed by the BNSF Remote Control Operating Instructions and must have a current copy accessible while on-duty.
- Only certified operators or students who have been trained in remote control operations may operate an Operator Control Unit of a Remote Control Locomotive.
- Division Timetable Special Instructions will designate limits of Remote Control Zones (RCZ). RCZ signs may also be posted at zone access locations.
- The Remote Control Operator in control of a Remote Control Locomotive must be notified of any track removed from service or working limits established for the protection of another craft.
- When a remote control operations system radio broadcasts “Operator Down”, movements on adjacent tracks must move prepared to stop in half the range of vision until the safety of all members of the remote control crew is confirmed.

**23. Automatic Cab Signals**

Cab signal equipment must be cut out except on suburban equipment on the Chicago Subdivision.

**24. Switch Tender Instructions**

The train dispatcher and switch tender are required to have a

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job safety briefing before a switch tender acts on instructions from the train dispatcher. Following a shift change, another briefing is required between the train dispatcher and switch tender, which will include discussion of pending instructions and determination if the instructions are still correct.

When communicating concerning approaching train movements, use engine initials and number and direction. Do not use only train symbols or blanket terms such as "westbound or eastbound trains."

The dispatcher will issue specific instructions to the switch tender. The switch tender must repeat the instructions to the train dispatcher and receive confirmation of being correct, before acting on the instructions.

For example: After confirming with the train dispatcher that BNSF 1234 West will be the next train to line from Main Track 1 to Main Track 2 at Robinson Spur, the switch tender is then to call the BNSF 1234 West and verify the train has authority from Main Track 1 to Main Track 2 at Robinson Spur. After verification has been received from the BNSF 1234 West, and after the switch tender has visually identified the BNSF 1234 West, the switch tender will line the route for the movement. After the movement is clear of the switch, the switch must be lined and locked in the normal position.

When necessary for the train dispatcher to change routing instructions to the switch tender after authority has been granted to a train, it is the responsibility of the dispatcher to communicate directly with the switch tender. Another authority over the switch that the tender is in charge of cannot be issued until the dispatcher has informed the switch tender of the change.

When a switch tender is at a remote location, away from a depot and/or base station radio, the switch tender must check with dispatcher when arriving at such location to confirm they can clearly communicate. If the switch tender becomes aware of any radio communication problems, the train dispatcher must be notified. The chief dispatcher will make particular arrangements when communication problems are evident.

While in charge of a switch, the switch tender must not leave the switch unattended unless it is lined and locked for normal movement.

The train dispatcher's transfer must include switch tender locations and pending instructions from the train dispatcher to the switch tender.

**25. FRA Random Drug Testing**

TY&E employees selected for FRA Random Drug Testing must show the start time of the Random Drug Test (RDT) in the remarks column of their timeslip. Start time of RDT begins when a supervisor notifies the employee that they are selected for RDT. A stop time on RDT is necessary only if different from their off-duty time.

**26. Verification of Rules Examination**

Employees required to pass rules examination must have a current rules examination card when issued, or engineer's certificate in their possession while on-duty.

**27. Cars Set Out Bad Order**

When practical, a car set out between terminals due to mechanical defect should be left where it can be accessed by truck for making repairs. If the car set out is a military shipment or Rail Sensitive Security Material (RSSM), the Resource Operation Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3. The PBX/MRAS radio system may be used for this communication.

**28. Grade Crossing Accidents**

The following information is designed to serve as post grade crossing accident guidelines. It is designed to provide the utmost in safety for you and your crew.

After the accident has occurred and the train is stopped:

A. Ensure the safety of crew members, accident victims, and the public.
B. Meet the requirements of GCOR 6.23.
C. Contact the dispatcher or any other available radio contact and advise:
    1. Exact location,
    and
    2. What emergency services are needed. Be sure to include alternate routes for the emergency vehicles if your train is blocking road crossings.
D. Assess the damage to the vehicle and train to determine if there is any danger to your crew or the public.
E. Assign a crew member to monitor a radio to provide further information for emergency assistance.
F. If it is safe, render assistance to accident victims. It is important not to move the victim unless a life threatening situation exists.
G. Turn "off" the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless necessary to permit emergency vehicles to access the accident scene through a blocked crossing, etc.
H. Only give information to:
    1. The investigating officer,
    or
    2. Authorized company managers.
        a. Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can recall.
        b. Record the badge number and name of the investigating police officer at the scene. Witness with the officer that the headlight is on, and that the whistle and bell on lead unit are in proper working order. Also, note that the crossing warning devices are functioning.
I. Assign a crew member to verify the accuracy of the train list. Save all train lists, track warrants, track condition messages, and other pertinent documents for the proper BNSF managers.
J. Ascertain that no part of your train is derailed and that it will be safe to proceed once released by the investigating officer.
K. Personal counseling will be available to any crew member who might experience post-accident trauma.

**29. Trains Performing Track Maintenance Work**

The conductor is in charge of and will be responsible for

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all work train movements. The safety of the overall train operation is the responsibility of the entire train crew. During work activities the engineer may accept train movement instructions only from a designated individual identified in the job safety briefing before commencing work. The individual designated to provide train movement instructions to the engineer will be a member of the train crew except during work activities requiring precision train movement, such as rail recovery. An individual of the work group may be designated to communicate directly with the engineer for precision train movements under the supervision of the conductor.

The engineer will respond to all Stop signals.

When Maintenance of Way, Signal, Structures, Mechanical or other work groups are involved with the activities of the work train (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.), a coordinator from such group must be designated. The train crew will communicate with the designated coordinator concerning all train movements and work activities.

An initial job safety briefing will be conducted before commencing work and additional job safety briefings must be held at intervals not to exceed four hours until the end of the tour of duty. In addition, when there is a change in assignment or a significant delay in activities has occurred, a job safety briefing must be conducted before commencing work. Employees who subsequently work in the vicinity of a work train after such job safety briefings have been held, must not commence work until they have received a job safety briefing from the designated coordinator regardless of authority received to occupy the area. The conductor is responsible to ensure that no work activity begins until the required job safety briefings are complete.

Job safety briefings must include applicable operating rules, safety rules, special instructions and any other work-specific information. The designated coordinator is responsible for communicating impending train movements to the work groups under his control.

All employees assigned to a work train and/or its activities are responsible to be on the lookout for train or track car movements at all times. Lookouts will be utilized when necessary and all movements must be fully protected.

In signaled territory, when at the intended work location and before performing work associated with track maintenance (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.) on a Main Track or Siding the conductor must:

- Notify the train dispatcher of the milepost limits where the work will be performed.
- Notify the train dispatcher when the work has been completed.

**30. Track Condition Messages**

Track condition messages (TCM) may be issued by train dispatchers to cover restrictions that affect movements on tracks governed by GCOR/MWOR 6.28, or any restriction not normally covered by a track bulletin restriction.

Restrictions shown on a track condition message may be cancelled verbally by the train dispatcher.

Authority can be given by a train dispatcher or supervisor to enter a track shown to be out of service on a track condition message.

When a track warrant indicates a track condition or train message is to be received, conductor is responsible for securing those messages necessary for movement of their train. Track condition messages must be retained and complied with on all trips made during the tour of duty on which they were received.

**31. Securing Track Warrants/General Track Bulletins**

When reporting for duty at initial terminal, a crew member will secure track warrants, track bulletins, and track condition messages or general track bulletin, unless otherwise instructed. A relief crew member must contact the dispatcher before departing to determine if additional documents are required, and advise if all crew members are present and ready to depart.

If the identifying unit is not shown correctly on the address line, contact the train dispatcher and correct the address line before departing the initial station.

**32. Currently Not Used**

**33. Flood, Excessive Wind, Tornado, Cold Weather and Earthquake Instructions**

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**Observations by Train Crews Associated with Flood/High Water**

Instructions for observations, or when otherwise notified by the train dispatcher, of flood/high water with or without a flash flood warning:

| Conditions Observed Associated with Flooding/High Water | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Water over rail | Immediately stop train, consistent with good train handling. Report condition to Dispr. After stopping for these conditions, do not move the train until further instructions are received from maintenance personnel. | | |
| Surface irregularity | | | |
| Washout | | | |
| Side scour | | | |
| Erosion at piers, footing, dump planks and head walls of bridges | | | |
| Debris against bridge with active water flow | Do not exceed 40 MPH until entire train has passed the condition. Report to Dispr. | | |
| Turbulent water | Do not exceed 30 MPH until entire train has passed the condition. Report to Dispr. | | |

Instructions for observations of flood from a stream or river near BNSF track, with or without flash flood warning, or when otherwise notified by the train dispatcher of flood/high water:

| Water Observed Reaching Bottom of Ballast Line (Figure 1 Below) | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Standing Water | Report to Dispr | | |
| Moving Water | Do not exceed 30 MPH until entire train has passed the condition/warning limits and report to Dispr. | | |
| **Water Observed Reaching Top of Ties (Figure 1 Below)** | | | |
| Standing Water | Do not exceed 50 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 30 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 40 MPH until entire train has passed the condition/ warning limits. Report to Dispr. |
| Moving Water | Do not exceed 20 MPH and be prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits. Report to Dispr. | | |

**Water Between Top of Tie & Bottom of Ballast**

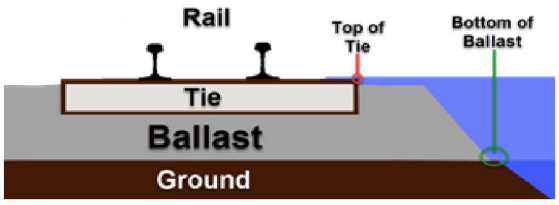



*Figure 1 - Top of Tie and Bottom of Ballast*

**Flash Flood Warning**

Weather information received by BNSF from Accu-Weather Enterprise Solutions, Inc., is categorized as a "Warning" when it describes conditions that require immediate action by the train dispatcher to notify train crews of imminent danger. These warnings are immediately distributed to the relevant train dispatchers. When Accu-Weather issues a "Flash Flood Warning", the dispatching center will immediately advise all involved trains of the specific conditions.

Flash Flood Critical Areas are designated in the Division Timetable. Division Engineers will identify "critical" areas by subdivision, segmented by mile post locations based upon their susceptibility to flooding or their history of being prone to washouts or side-scour wash.

Instructions for movement of trains when notified of flash flood warning:

| Flash Flood Warning | Passenger Trains | Key Trains | All Other Trains |
|---|---|---|---|
| **Critical Area** | Do not exceed 20 MPH through critical area limits and be prepared to stop for slides, washouts, debris, track surface irregularities or obstructions on the track. | | |
| **Non-Critical Area** | Do not exceed 50 MPH through limits identified in the warning. | Do not exceed 30 MPH through limits identified in the warning. | Do not exceed 40 MPH through limits identified in the warning. |
| *Additional restrictions, including a requirement to stop the train, may apply if flooding/high water conditions are observed by the train crew.* | | | |

The Flash Flood Warning restrictions will remain in effect until the track has been inspected and employee performing the inspection advises the train dispatcher that the applicable restriction is canceled. If the Flash Flood Warning limits include locations identified as being "critical," these areas will be inspected on a priority basis as directed by the dispatching center.

Train dispatchers will continue to issue Flash Flood Warnings until the track has been inspected and the Flash Flood Warning expires or is canceled by Accu-Weather.

**Local Observations by Maintenance Personnel**

When local maintenance personnel become aware of current conditions that might produce flash flooding that could result in damage to BNSF track or structures, they will:

- Immediately place the speed restriction described above on the affected route.
- Inspect the track for washouts, side-scour wash, surface irregularities and/or water over the rail.
- Carefully inspect bridge foundations and drainage structures, with careful attention to bridges with mud sills, for erosion behind dump planks and head walls, erosion around piers and footings, and obstructions from drift and debris.
- If water level, turbulence, or other conditions make a thorough inspection impossible at the site of such a bridge, operations of all trains will be reduced to no more than 20 MPH and prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits until it is possible to make a proper inspection.
- If, during the initial track inspection, there is any doubt about the safety of train operations over bridges, a qualified Structures employee must be called at once, and any speed restrictions that have been placed on bridges will not be lifted until authorized by the Structures employee.
- Track and bridge foremen must continue to patrol past their respective territories if an adjoining territory is likely to have been damaged, and such damage might not have been discovered.

**Excessive Wind Instructions**

When wind warnings are received meeting the wind speed criteria, the train dispatcher will make a general radio

broadcast regarding the High Wind Warning over the radio(s) nearest the affected area and then will notify all affected trains and employees with movement authority providing time and limits of the expected high winds. The term "until traversed" may be used in place of communicating the expiration time of the warning when notifying trains and MW authority holders of wind warnings. Until traversed means the rear of the train is clear of the limits. The following table governs movement of trains within or entering the High Wind Warning limits when the general radio broadcast is received:

| Wind Speed | Passenger Trains (includes Amtrak, commuter trains and freight trains consisting entirely of business cars) | Light engines, empty bulk commodity tank car unit trains containing loaded buffer cars (if equipped) weighing 75 tons or greater, loaded ribbon rail trains and loaded bulk commodity unit trains as defined in the Air Brake and Train Handling Rules Glossary. | Trains handling cars with two empty containers stacked on top of one another (as indicated on train list) | All other trains |
|---|---|---|---|---|
| 51 to 60 MPH | 40 MPH* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |
| 61 MPH or greater | Staging requirements* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |

**Staging Requirements:**
Affected trains and equipment may proceed not exceeding 20 MPH pending notification of a staging location (e.g. station, siding or location with double crossovers) as directed by the train dispatcher to allow trains not affected by the wind warning to pass.

* When local weather conditions are observed not to be as severe as the wind warning indicated and these conditions would not impact safety, an employee making the observation will advise the train dispatcher of the local conditions. If the employee advises local wind conditions are 50 MPH or less, with chief dispatcher authority the train dispatcher may grant permission for the passenger trains restricted to 40 MPH and other affected trains to operate at maximum authorized speed. Observations of local wind conditions can be made by any of the following:
- Crew member on an affected train
- Railroad employee in the field at location of warning equipped with a wind monitoring device (anemometer)
- Local tower mounted wind monitoring device (anemometer)
- Utilizing BNSF Railway WIND App

**Tornado Watch and Warning Instructions**
Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile and extend the length of a city block to 300 miles. The greatest potential for such storms usually exists from April through September.

When tornado watch or warnings are received, the train dispatcher will notify all affected trains and employees with authority in the area providing the tornado watch or warning information.

A "tornado watch" means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4-6 hours before the conditions may occur.

During a tornado watch, all train movements and yard activities will continue, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud, or combination of the above. When a crew knows they are in a watch area, the radio on a locomotive or a packset should be used to monitor instructions and information to and from the train dispatcher. In the event a crew spots a funnel cloud, the train dispatcher should be immediately notified, consistent with the crew's safety.

If a train or yard assignment has an occupied caboose, upon being notified of a tornado watch, the occupants of the caboose should immediately move to the locomotive consist. While in the process of moving to the locomotive, if the tornado watch turns into a "tornado warning," or a funnel cloud is spotted, those affected should seek shelter in a nearby ditch, ravine, culvert or in a depression. If none of these are available, lie face down on the ground with hands over the head away from the caboose or cars in the train.

A "tornado warning" means a tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains and crews appraised of limits of tornado warnings. Train crews are to follow instructions as follows:

During a tornado warning, all train movements and yard activities must stop. Any train enroute will stop and employees should seek appropriate shelter consistent with the safety of all involved, avoiding the stopping of a train on a high bridge, across railroad and highway crossing at grade, or anywhere the presence of a train could be a hindrance.

After the tornado warning has expired:
- If determination is made that the path of the tornado crossed the tracks at the location or in the immediate vicinity of the train, crew members must inspect their train before moving to determine if any damage or derailment has occurred to the train or if the track structure has been damaged.
- All trains within or entering the tornado warning limits may proceed, prepared to stop when approaching bridges, culverts, or other points likely to be affected until relieved by the dispatcher. The train dispatcher must be advised immediately of damage or unexpected conditions.
- The train dispatcher must restrict trains as prescribed in the second bullet, until an inspection has been completed by division employees or all of the limits of the tornado warning have been traversed by a train and it is confirmed by the train crew(s) that no damage or unexpected conditions were observed.

**Cold Weather Restrictions:**
The correlations that exist between rail service failures, temperature, train axle load, track and equipment conditions, and train speed are complex and involve many factors including equipment and track component design and material properties, their relative wear conditions, and the rail/wheel interaction for various traffic mixes and operating conditions.

In order to maximize safety with regard to extreme temperatures and temperature changes, rail laying temperatures and weather extremities across our railroad have been considered. In that effort, the railroad has been divided into two regions as follows:

**Region 1** contains the following divisions:

| | |
|---|---|
| California | All subdivisions |
| Chicago | Beardstown and Yates City subdivisions |

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| | |
|---|---|
| Heartland | Afton, Amory, Birmingham, Cherokee, Cuba, Ft. Scott, Hannibal, River, Thayer North, and Thayer South subdivisions |
| Kansas | Arkansas City, Douglass, Emporia, Hereford, La Junta, Panhandle, Strong City, and Topeka subdivisions |
| Montana | Kootenai River subdivision from MP 44.0 to Sandpoint Jct only |
| Northwest | All subdivisions |
| Red River | All subdivisions |
| Southwest | All subdivisions |

**Region 2** contains the following divisions:

| | |
|---|---|
| Chicago | All subdivisions excluding Beardstown and Yates City |
| Heartland | Bayard, Council Bluffs, Creston, Napier, Omaha, and St. Joseph subdivisions |
| Kansas | Boise City, Dalhart, and Twin Peaks subdivisions |
| Montana | All subdivisions excluding that part of Kootenai River subdivision from MP 44.0 to Sandpoint Jct |
| Powder River | All subdivisions |
| Twin Cities | All subdivisions |

**Cold Weather Train Speeds:**
The Engineering Department has identified two factors which require Cold Weather Train Speeds---Low Temperature Threshold and Temperature Differential Threshold, as follows:

**Low Temperature Threshold:**
In Region 1, this threshold is 0 degrees Fahrenheit.
In Region 2, this threshold is -20 degrees Fahrenheit.

Unless further restricted by individual subdivision Special Instructions, be governed by the following:

When ambient (air) temperature drops below the Low Temperature Threshold trains must not exceed the following speeds:

In non-signaled territory:
40 MPH for all trains.

In block signal system limits:

| | |
|---|---|
| Trains 100 tons per operative brake and greater. | 40 MPH |
| Key trains | |
| Trains less than 100 tons per operative brake. | 50 MPH |
| Passenger trains, Z-symbol intermodal trains, or single level loaded intermodal trains. | 65 MPH |

If in doubt as to the temperature, contact the train dispatcher. Notify the train dispatcher when your train is restricted due to this requirement.

These restrictions remain in effect until the ambient (air) temperatures rise above the Low Temperature Threshold.

**Temperature Differential Threshold:**
In Region 1, this is any temperature of 50 degrees Fahrenheit or warmer that falls to 10 degrees Fahrenheit or colder within 24 hours.

In Region 2, this is any temperature of 40 degrees Fahrenheit or warmer that falls to 0 degrees Fahrenheit or colder within 24 hours.

The train dispatcher will make notification to trains that temperature has exceeded the Temperature Differential Threshold. When so notified, trains must observe Cold Weather Train Speeds, by Region, as shown above. The Engineering Department will perform a track inspection, reporting results to the train dispatcher. If no further restrictions result from the track inspection, the train dispatcher will verbally notify the trains affected.

Be aware that Cold Weather Train Speeds may still be required due to Low Temperature Threshold. In other words, once track inspection is completed following a Temperature Differential Threshold, the ambient (air) temperature may still be below the Low Temperature Threshold, requiring that Cold Weather Train Speeds must still be observed.

However, if the ambient (air) temperature is above the Low Temperature Threshold and no further restrictions resulted from track inspections, observance of Cold Weather Train Speeds is not required.

**Determining Ambient Temperature**
When referring to a subdivision timetable for extreme air temperature operating instructions, be governed by the following:

- Ambient air temperature readings may be obtained by train crews utilizing any local means available such as field personnel, track side warning detectors, yardmasters, temperature displays from such sources as banks, etc.
- When unable to determine the ambient air temperature utilizing local methods, contact the train dispatcher who will determine ambient air temperature at the closest available location utilizing the AccuWeather website or other available means.

**Earthquake Instructions**
When an earthquake is reported, the train dispatcher will do the following: (See Decision Table, next column)

1. If the magnitude or epicenter are unknown, instruct all trains within 150 miles of the reporting location to "proceed at Restricted Speed due to earthquake conditions." An acknowledgment must be obtained from each train or engine receiving these instructions.
2. Once magnitude and epicenter are known, the following inspection criteria will apply:
   - If magnitude is less than 5.0, no inspection is required.
   - If magnitude is 5.0 or greater, response will depend on the group of states and provinces within which the epicenter is located and the following criteria will apply within the designated radius from the epicenter.

| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| Less than 5.0 | No Inspection Required | N/A | N/A | N/A | N/A |
| 5.0 to 5.49 | Trains proceed at Restricted Speed until signals have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |

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| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| 5.5 to 5.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 6.0 to 6.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 150 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 50 Miles | 80 Miles | 150 Miles | 80 Miles |
| 6.5 to 6.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 220 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 70 Miles | 140 Miles | 220 Miles | 140 Miles |
| 7.0 to 7.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 400 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 100 Miles | 300 Miles | 400 Miles | 300 Miles |
| 7.5 and above | Trains stop until instructed to proceed after inspection of track, signals and bridges completed. | As Directed* | As Directed* | As Directed* | As Directed* |

* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

Group 1: California and Baja California, Mexico
Group 2: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico
Group 3: Area east of Group 2
Group 4: Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

**35. Switching and Handling Business Cars**

a. Business Cars must be handled as outlined in accordance with GCOR 7.3, 7.6, and 7.9.
b. Air Brakes—The Business Car air brake system must be connected to the locomotive and the automatic air brake used in controlling movements during switching.
c. Coupling—When coupling into Business Cars, Business Car equipment, or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. Business Cars must not be cut off while in motion or no car moving under its own momentum should be allowed to couple to them.
   Note: Business cars being added to the rear of trains must be performed by a separate locomotive (switch engine) with coupling not to exceed 1 mph. Do not attempt to make a coupling with the rear of the outbound train onto the business cars being added.
d. After Coupling—Once the coupling is made to the Business Car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communication connections.
e. When cars are to be coupled to the observation end of BNSF Business Car 30 (Glacier View) and Business Car 32 (William B. Strong), the car next to the Business Car must be an empty flat, gondola or other type of car with a low profile.
f. 480 Volt electrical jumper cables between Business Cars or any other car so equipped will be considered to be energized until applicable lockout/tagout procedures confirm connections are de-energized. All connections and disconnections are to be performed by authorized Mechanical Personnel Only.
g. Cars are to be considered occupied at all times whether they are moving in the train or parked.
h. When cars or trains are parked, protection must be established as outlined in GCOR 5.12. Local Transportation Department will coordinate with local Mechanical Department to provide required protection.
i. White "Occupied Camp Car" signs will be available on Business Cars through Business Car personnel.
j. All hand brakes must be fully released before moving Business Cars. If a hand brake is not accessible on an enclosed vestibule, the on board Mechanical Rider or Mechanical Supervisor must be contacted to allow access or verify that hand brakes have been released.
k. Business Cars cannot be moved until vestibule steps are raised. Vestibule steps must not be lowered until Business Cars have come to a complete stop.

**36. Instructions for Handling Continuous Rail**

(Excluding articulated loads of 80 ft. length rail or less) Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by ABTH Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the "rail" cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled "Buffer/Idler" in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BNSF 920119 through BNSF 920173 , BNSF 920230 through 920249, and BNSF 920280 through 920299 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
   - Must be handled in special service.
   - Must not be required to make setouts and pickups

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enroute.
- Exception: When authorized to operate two loaded rail trains together, splitting of the trains is permitted.

- Must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)
May be handled in trains other than special service under the following conditions:
   - Rail train must be on head end.
   - Train length limited to 64 cars.
   - Should not be required to make setouts and pickups enroute.
   - Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
   - If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative enroute, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
   - Strobe lights at each end ramp car must be observed frequently enroute. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
     a. If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
     b. If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.
   - If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

   The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolyte batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

   The "ramp or tunnel" strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

   To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute; and fully charged batteries will operate them for about sixteen hours.

   The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

   Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

   At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**
Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4" x 4" hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**
When handling empty 'rail train' blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car.

**37. Key Train and Key Train Commodity Securement Requirements**

Do not leave a Key Train or rail cars meeting the Key Train definition unattended on a main track or siding unless

permitted by the train dispatcher.

The train dispatcher may only grant permission to leave the train or car(s) at locations specified by timetable/special instructions or when otherwise necessary, after consulting with NOC-General Director Transportation, Corridor Superintendent, Assistant Corridor Superintendent, or Chief Dispatcher to evaluate operating circumstances.

When permission to leave the train or car(s) is received from the train dispatcher:

- Job brief between members of the crew to review all applicable securement requirements.
- Secure equipment as required by all securement requirements of the employing railroad.
- Include the following in a job safety briefing with the train dispatcher, who will verify information is provided:
  - Tonnage and length of train (or total number of individual cars) left unattended,
  - Grade of track at the location as indicated by timetable grade chart.
  - Whether equipment secured is located on curve or straight track,
  - Any inclement weather conditions (e.g., precipitation, high wind),
  - Total number of hand brakes applied,
  - Confirmation the train or car(s) is secure. Communication to include statement, "Conductor and engineer agree securement requirements have been met."

Note: These requirements do not apply when a portion of the train or car(s) is left properly secured and the on-duty crew is:

- Picking up, setting out, or repositioning cars at an industry,
- Switching cars to/from tracks adjacent to main track or siding,
- Adding, removing, or repositioning locomotives, or
- Moving part of a train when doubling a hill or cutting crossings.

**38. De Minimis Territory**

De minimis territory carries a minimal quantity of PIH/TIH materials and must meet certain criteria related to annual tonnage, grade, train spacing, and volume factors including:

- Fewer than 100 loaded cars containing PIH/TIH materials per year, and
- Two or fewer trains per calendar day carrying any quantity of PIH/TIH (loaded and residue/empty).

Prior to operating on de minimis territory train crew must notify the train dispatcher if carrying any quantity of PIH/TIH materials (loaded and residue/empty).

Maximum speed of trains carrying any quantity of PIH/TIH materials on de minimis territory is 40 MPH.

**De Minimis Territories**

| Division | Subdivision | Limits |
|---|---|---|
| Red River | Conroe | MP 77.0 to MP 152.2 |
| Southwest | El Paso | MP 936.1 to MP 1152.5 |
| | Phoenix | MP 135.0 to MP 181.2 |
| Powder River | Casper | MP 458.9 to MP 513.1 |
| Montana | Great Falls | MP 37.3 to MP 97.0 |
| Twin Cities | Aberdeen | MP 704.6 to MP 777.0 |
| | Noyes | MP 0.0 to MP 85.0 |

**39. Train Inspection Due to Track Indication**

A BNSF or foreign line carrier crew instructed by the train dispatcher/control operator to inspect their train due to track indication(s) must promptly stop the train consistent with good train handling procedures and inspect both sides of the entire train. During inspection, particular focus must be given to wheels, axles, trucks or other parts of the train that may cause track damage.

When conditions permit, inspection is to be performed while the train is moving, not exceeding 5 MPH to afford the inspector opportunity to hear a defect such as a broken wheel. To complete inspecting the entire train, inspection may also be performed while backing up not exceeding 5 MPH when all requirements of GCOR 6.6 (Back Up Movements) can be met.

Any side or portion of the train that cannot be inspected while the train is moving must be inspected while the train is stopped. Discontinue inspection if it cannot be completed safely until an alternative is identified by job safety briefing or coordination through the train dispatcher/control operator and/or supervisor.

Notify the train dispatcher/control operator of any defects and when inspection is complete.

**40. Rear End Restricted Cars**

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

**41. Car Identification B-End**

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Multi-platform Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

**42. Currently Not Used**

**43. Signal Awareness/Position of Switch Form**

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Signal awareness and Position of Switch Forms must be completed when operating on subdivisions where PTC is not in effect, or when operating on territory where PTC is in effect and train is not PTC equipped.

Note: On PTC active trains where the PTC system becomes inoperable enroute, Signal Awareness and Position of Switch Forms are not required to be completed.

Subdivision-specific signal awareness/position of switch forms available at on-duty points must contain at least the minimum requirements shown on the standard form. These forms may contain additional subdivision-specific information as approved by the Division General Manager. When subdivision specific signal awareness/position of switch forms are not available, crew members may request a standard form be included with the GTB. When required, in addition to observing and calling signals as required by GCOR 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects, yellow or yellow-red flags and trackside warning detector exceptions must be recorded.

Record the following:

- CLEAR signals - Name or aspect.
- All other signals - Name or aspect of the signal, the train speed and time signal passed.
- Flags - Name and location of each flag, the train speed and time flag passed.

When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (outside of restricted limits or yard limits) a crew member must record:

- Name and location of hand operated main track switches, switch point locks, and derails operated.
- Name and location of hand operated main track switches left in reverse position.
- Time and initials of employee operating the main track switch, switch point lock or derail.
- Time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form.
- Entry of appropriate box number when switch is left in reverse position.

Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail. The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. If not practical for both the conductor and engineer to initial the form, after a job safety briefing, the person filling out the form can enter the other initials on the form. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, when completion of Position of Switch Form is required and operating in non-signaled territory or Double Track ABS territory (except in Restricted Limits and Yard Limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position." If radios become inoperable, all members of crew must job safety brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

Standard forms:

Signal Awareness Form (Location to Location)

Date:_____ Conductor:_____ Engineer:_____

Train Symbol:_____

Block System Limits

| Signal Location<br>Detector Exception | Signal Name | | | | | | *Speed | *Time Passed<br>Time at Required Speed | Flag Location and Name |
|---|---|---|---|---|---|---|---|---|---|
| | Clear (Mark X) | Approach Medium (Mark X) | Approach (Mark X) | Stop and Proceed (Mark X) | Stop (Mark X) | Other (Mark X) | | | |
| Examples | | | | | | | | | |
| CP 5325 | X | | | | | | | | |
| CP 5332 | | | X | | | | 40 MPH | 1545<br>1548 | |
| WSS Anna | | X | | | | | 60 MPH | 1715 | |
| | | | | | | | | | |
| TWD MP 566.5 | Exception - Main 1, Hot Journal, Axle 45, Right side | | | | | | | | |

*It is not required to indicate speed and time for CLEAR signals.
The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting
Y - Yellow Flag, Y/R - Yellow-Red Flag

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| Position of Switch/Flag Location | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subdivision(s) | | | | | | | |
| Flag Location | Flag Name | MPH | Switch/Derail/Switch Point Lock Name and Location | Time/ Initials Operated | Time/ Initials Restored | Engineer's Initials | Conductor's Initials |
| Examples: | | | | | | | |
| MP 21 | Y | 30 | | | | | |
| | | | W House Track SW Bess | 1800 LGW | 1935 LGW | KDW | DET |
| | | | ESS Anna | 2100 LGW | Box 13 | KDW | DET |
| The following abbreviations may be used: Y - Yellow Flag, Y/R - Yellow-Red Flag | | | | | | | |
| Conductor Signature: | | | | | | | |

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)
  - Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
  - Place in company or US mail for handling.
- Notify the train dispatcher of the near collision providing as much information as possible. The dispatcher will notify the ROCC.

Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF Police personnel or to the Resource Operations Call Center at 1-800-832-5452.

**45. Network Operations Center Notification Requirements**

**Procedures for Contacting Help Desks**

- Train Dispatcher - Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an HTD/ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Chief Dispatcher - For Mechanical Related Service Interruptions (SIs), must make sure that the correct lead locomotive ID, ETD, cars, etc., are correctly reported when generating a service interruption in SIDOL.
- Mechanical Help Desk - After initially recording and providing general information about defective locomotives, cars, or an HTD/ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Train crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

Note: At terminals, locomotive and/or HTD/ETD defects (on either ROAD or YARD locomotives) must immediately be reported to local supervision the Mechanical Help Desk. A bad order tag must then be attached to the ETD to prevent subsequent use before repairs can be made and be governed by local supervision on where to place bad ordered ETD.

- Bad Order ETD Handling Between Terminals- Train crews who have a bad order ETD removed from their train must open an ETD defect with the Mechanical Desk, attach a bad order tag to the ETD, and either turn over the bad order ETD to the mechancal responder on site or if no mechanical responder is assisting train, transport the bad order ETD in the front portion of the cab of the lead locomotive. When transporting, ensure the ETD is placed to where a tripping hazard will not exist while entering and exiting the locomotive cab. Upon reaching the terminal, the train crew must contact and be governed by local supervision on where to place the bad ordered ETD. Train crews being relieved enroute must notify relief crew of bad ordered ETD placed in the cab for their handling upon reaching terminal.

Before repositioning of the lead locomotive in a consist, train crews must contact the Mechanical Help Desk to check lead qualification status of other locomotives in the consist to determine which may be used as a lead locomotive.

The Mechanical Help Desk may be contacted by phone at:

Operations North-817-352-2840, Co. Line 8-352-2840
Operations South-817-352-2836, Co. Line 8-352-2836

Service Support-In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting:
BNSF company line-8-593-7610
Toll-free line-800-549-4601
BNSF fax line-8-593-7615
Fax toll-free line-800-234-1341

Interchange reporting:
BNSF company line-8-593-7640
Toll-free line-800-206-3846
BNSF fax line-8-593-7645
Fax toll-free line-800-223-6757

**46. Special Car Handling Instructions (SCHI)**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

| CODE | DESCRIPTION |
|---|---|
| AG | Armed Guard Service |
| AV | Annual Volume |
| BH | Bad Order Home Shops |
| BN | If Bad Order Notify Shipper |
| BT | Bare Table Flat |
| B1 | Bad Order |
| B2 | Cleaned (swept), Holes in floor 1 in. to 6 in. |
| CA | Moving to a Customer Demand |
| CB | CARB (See Note 3) |
| CC | To Be Cleaned and Conditioned |
| CD | Condemned Car (See Note 1) |
| CI | Customs Inspection |
| CO | Coload Manifest Car |
| CR | Empty Coal Car Moving as Revenue |
| CS | Customer Storage |
| CU | Customer Stage |
| CY | Certification That This Equipment is for Recycling |
| DB | Distributed Van Bad Ordered |
| DH | Do Not Hump |
| DI | Redistribute at Destination |
| DK | Do not couple to double shelf coupler cars |
| DN | Shipper's Authority Required for Diversion |
| DO | Delivery Order Shipment |
| DR | Drop Yard |
| DS | Do not spot for loading other than hazardous last contained. |
| DT | Distributed Intermodal Equipment |
| DU | Do Not Uncouple |
| DV | Unit has been diverted |
| EC | Speed Restriction 55 MPH |
| EH | Embargo Hold |

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EL ..... Empty Container Mechanical Lock
EM ..... Hold for Equipment Management
ER ..... Return Empty Via Reverse Route
ES ..... Expedited Service
EW ..... Hold Early Warning
FA ..... Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB ..... Automobiles Headlights Facing B (Brake End) of Autoveyor
FM ..... Fumigate Car Now
FP ..... Fumigation Placards Applied
HA ..... Cars Held for the Customer in Bond Pending Customs Authority
HB ..... Hold for Billing—Mini Waybill Indicating Industry to Bill
HC ..... Hold for FMC Redistribution
HD ..... Cars Held for Customer Diversion
HE ..... Head End Only
HF ..... Car Held for BNSF Rail Clearances (High Wide)
HG ..... Cars Held for BNSF Pending Customer File Information
HH ..... Cars Held for Overload Condition
HI ..... Hold for Inspection
HJ ..... Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK ..... Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL ..... Excessive Dimension
HM ..... Moving in ISO Tank Container
HN ..... Cars Held for Specified Local Conditions, **Restricted Usage
HO ..... Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR ..... Cars Held for Customer Furtherance Instructions After Arrival at Destination
HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement
HT ..... Heat Car
HV ..... High Value Shipment
HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier
IB ..... In BNSF Bond
IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs
ID ..... In Bond Beyond BNSF Destination
IE ..... Interchange Error
IH ..... Inhalation Hazard
IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico
IN ..... Hold for Inspection
IS ..... In Shipper's Bond
IU ..... Inspection was Requested by US Customs at Port of Entry into USA
LC ..... Car Trip Leased to Consignee
LD ..... Local Distribution Empty
LG ..... Loaded to Gallonage Capacity
LO ..... Local Orders
LQ ..... Loaded to Full Cubic Capacity
LS ..... Handle in Local Service Only
LU ..... Unload in Laredo proper
LV ..... Loaded to Full Visible Capacity
LX ..... Cleared for export via Laredo
L1 ..... Customer Location 1
L2 ..... Location 2 - East Plant
M8 ..... Inspect 8 axle or greater span bolster car for ride quality components
MB ..... Make Bill of Lading
MC ..... Measure Car Now
MD ..... Mixed Destination Intermodal Units
MI ..... Requires mechanical inspection, do not move on train.
MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit
MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit
NC ..... Non-credit Patron
ND ..... Do Not Divert
NH ..... No Hit—Car Distribution
NL ..... IMDL van or container requires Nava Lock device
NM ..... Non Misc. Credit Patron—Car held account charges due
NP ..... No Placards Required
NT ..... Do Not Transfer Contents
OI ..... Oils Marine Pollutant
ON ..... Oil Notation
PD ..... Privately Owned Equipment Subject to Demurrage
PH ..... Hold for Pool Destination
PJ ..... Mechanical Project Job
PR ..... Prospective Loading Empty
PT ..... Hold for Pre-Trip
QD ..... Hold for Queue Demand
QH ..... Hazmat Hold—Do Not Transport
RC ..... Restricted Commodity
RE ..... Rear End Only
RI ..... Rail Inspection Service
RJ ..... Hold for Rejected
RL ..... Revenue Locomotive - Check for Alignment Control
RP ..... Rail Controlled Private
RS ..... Rule 7 Reject Candidate
SC ..... Equipment Scrapped
SD ..... Car Sold
SE ..... Hold for Seasonal Storage
SF ..... Feed Now
SH ..... OPSL Hold
SO ..... Shipper's Order
SR ..... Rail Surveillance Required
SS ..... Surplus Storage
ST ..... Move on special train only, requires single car train movement.
SW ..... Switch Only Empty Furnished by Foreign Road
SX ..... Speed Restriction Exception to Sys Special Inst. - OK to Run at Train Speed
TB ..... Car Control Distributed Bad Order
TC ..... Tank Car, Meets CPC-1232 standards
TN ..... Tank Car, Non - CPC-1232 standards
TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated
TS ..... Transit Shipment
TU ..... Turn This Car Now
UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.
UP ..... Unloaded as Placarded
UR ..... Unload from right side (from brake end)
VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)
VB ..... Vehicles Headlights Facing B-End (Brake End)
WA ..... Weigh After Spotted and Released
WB ..... Weigh This Car Both Before and After It Goes to Spot
WH ..... Weigh
WI ..... Waive Inspection
WL ..... Weigh Light
XM ..... Cleared to Cross from US to Mexico
25 ..... 25 MPH Speed Restriction (See Note 2)

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**Clean and Condition Codes for Empty Cars**

| CODE | DESCRIPTION |
|---|---|
| F1 | Washed, Food Grade |
| F2 | Cleaned (Swept), Food Grade |
| F3 | Dirty, Food Grade |
| F4 | Cond/Repairs, Food Grade |
| F5 | "Not Observed", Food Grade |
| F6 | Rinse, Food Grade |
| F7 | Inspected, Food Grade |
| P1 | Washed, Processor Grade |
| P2 | Cleaned (Swept), Processor Grade |
| P3 | Dirty, Processor Grade |
| P4 | Cond/Repairs, Processor Grade |
| P5 | "Not Observed", Processor Grade |
| P6 | Rinse, Processor Grade |
| P7 | Inspected, Processor Grade |
| S1 | Washed, Standard Grade |
| S2 | Cleaned (Swept), Standard Grade |
| S3 | Dirty, Standard Grade |
| S4 | Cond/Repairs, Standard Grade |
| S5 | "Not Observed", Standard Grade |
| S6 | Rinse, Standard Grade |
| S7 | Inspected, Standard Grade |
| S0 | Washed and Sanitized |

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

**Note 3.** The California Air Resource Board (CARB) has instituted tighter emissions standards for transportation refrigeration units. Some BNSF refrigerated boxcars are not compliant with the new standard and therefore cannot originate, terminate or transit through California state. Non-CARB-compliant cars can be identified by a CB code in the SCHI field and are color coded reverse video blue in TSS.

Equipment management controls have been implemented to assign only CARB cars to the state of California. Waybill edits will verify compliance at release and place a STOP on non-CARB cars if waybilled to a California destination.

No substitution between Non-CARB and CARB cars is allowed unless work orders specifically authorize the exception. Yard Block HOLDCB prevents any Non-CARB cars destined to California, or originating in California from scheduling to a train. Cars will go HOLDMT at origin.

Non-CARB cars will not schedule to trains terminating in or passing through California. Attempts to TRNSET a Non-CARB car to a California-routed train will result in a pop-up window advising that the car must be removed from the line-up and explaining why.

For questions or assistance with handling exceptions for BNSF refrigerated boxcars, email your concerns to the CARB Resolution Team at "MKT DL CP CARB".

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M2F and M3F (articulated Hi Bi/Tri-Levels) must not be operated on any Branch Line or on any of the following locations:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Carlsbad Subdivision—Mines Jct. to Carlsbad
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Laurel Subdivision
- Lester Subdivision
- Longview Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Scenic Subdivision—(Exception: Car kinds M2F and M3F may operate on this subdivision and use only MT 2 between MP 0.15 and MP 1.11.)
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Mitchell Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kinds M2F and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7 f).

**47. Train Makeup Instructions**

If a train is determined to be out of compliance with these train makeup rules as listed in items 47 & 47(A), and the maximum authorized speed exceeds 45 MPH, the speed must immediately be reduced to 45 MPH and the train dispatcher notified. The train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**System Tonnage Restrictions:**

1. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car):
   - Any car 80 ft or longer coupled to any car 45 ft or shorter.

   Note: Item 1 does not apply to test cars BNSF 82/83 and multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars.)

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2. The following cars must not be ahead of more than 5,500 trailing tons:
   - Multi-platform spine cars, regardless of how loaded.
     - See Subdivision Specific Tonnage Restrictions below for additional multi-platform spine car tonnage instructions.
3. Trains greater than 5,500 total tons (excluding empty bulk commodity trains):
   Restricted cars must not be within the first 10 cars/ platforms

The following are restricted cars that pertain to SSI 47 System Tonnage Restrictions Item 3 and Mountain Grade Tonnage Restrictions Items 1 & 2 below:

- Any conventional car (non-multiplatform) weighing less than 45 tons.
- Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) and Wind Tower Trains with distributed power.
- Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.
  Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
- Multi-platform cars with any empty platforms. Note: All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.

4. Trains greater than 7,000 tons:
   The rear 1/4 of the train by car count must not weigh more than 1/3 of the total weight.
   Exception: This does not apply to:
   - trains made up entirely of cars weighing a minimum of 45 tons each.
   - solid loaded or solid empty unit bulk commodity trains.
   - trains made up entirely of intermodal equipment.

**Mountain Grade Tonnage Restrictions**

The following restrictions are in addition to System Tonnage Restrictions (excludes solid empty bulk commodity trains):

1. On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 2,500 trailing tons.
   - Trains greater than 2,500 tons and less than 3,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 3,000 tons or greater, restricted cars must not be within the first 15 cars/platforms.
2. On Cajon (Main 3, MP 56.6 - MP 62.8), North County Transit Coaster (MP 250 - 255), Gateway (MP 178.0 - 188.0), UPRR Mojave (MP 331.3 - MP 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5) Subdivisions, the following additional restrictions apply:
   - Trains greater than 3,500 tons and less than 4,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 4,000 tons or greater, restricted cars, automax cars weighing less than 120 tons, and autoracks weighing less than 60 tons (does not apply to DP trains consisting entirely of automax/autorack cars), must not be within the first 15 cars/platforms.
3. On Cajon (Eastward Main 3, MP 56.6 - 62.8), North County Transit Coaster (MP 250 - 255), UPRR Mojave (Eastward MP 331.3 - 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Gateway (Northward MP 178 - 188), Stampede (MP 41 - 58.5) and Scenic (Eastward MP 1694.5 - 1731.3) Subdivisions, the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 4,000 trailing tons.
4. On Glorieta (MP 775.0 – MP 842.0), Raton (MP 639.0 – MP 660.0), Cajon (Main 3, MP 56.6 – MP 62.8), North County Transit Coaster (MP 250 – MP 255), Gateway (MP 178.0 – MP 188.0), UPRR Mojave (MP 331.3 – MP 381.3), UPRR Moffat Tunnel (MP 17 – MP 63), UPRR Provo (MP 626 – MP 685), Scenic (MP 1694.5 – MP 1731.3) and Stampede (MP 41.0 – MP 58.5) Subdivisions, the following additional restrictions apply:
   - Cars weighing 35 tons or less, that are 80 ft. or longer or that are coupled to cars 80 ft or longer must not be ahead of 4,000 trailing tons.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 3, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

**Subdivision Specific Tonnage Restrictions**

Intermodal trains operating with multi-platform spine cars, regardless of how loaded, are subject to System Tonnage Restrictions as well as the additional restrictions below:

On the Chillicothe, Marceline, Emporia, Arkansas City, La Junta, Topeka, Panhandle, Hereford, Clovis, Gallup, Seligman, Needles, Fort Worth (between MP 365 and MP 355), Wichita Falls and Red River Valley Subdivisions, trains operating with DP may exceed 5.500 trailing tons behind multi-platform spine cars if the following conditions are met:

1. No more than 30 cars equipped with End of Car Cushioning (Autoracks and Super Reefers identified in subdivision specific timetable).
2. Trains operating with rear only DP:
   - Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.
3. For trains operating with cut-in DP:
   - Tonnage ahead of and behind the cut-in DP consist must be within 2,000-tons of each other.
   - Trains operating with DP consist cut-in and no rear DP:
     Multi-platform spine cars ahead of the cut-in DP must not be ahead of more than 11,000 trailing tons. In addition, multi-platform spine cars behind the cut-in DP must not be ahead of more than 5,500 trailing tons.
   - Trains operating with both cut-in and rear DP:
     Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.

**Exceptions**

Trains which are exempt from the above train makeup instructions will be identified on Division General Order.

UPRR trains operated on BNSF may operate in compliance with UPRR train makeup rules with the exception of distributed power train length limitations as outlined in 47(A).

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train makeup instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train makeup instructions, train is authorized to operate on BNSF at a maximum speed of 45 MPH.

**Train Length, Tonnage and TOB**

When complying with Special Instructions covering speed and other train restrictions where calculations of train length, tonnage and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

Exception:

1. The weight of isolated/inoperative locomotives is added to train trailing tonnage when determining HPT in the application of ABTH Rule 106.1 Regulating Horsepower per Ton, and
2. The weight of locomotives with isolated/inoperative dynamic brakes is also added to train trailing tonnage when determining the minimum number of dynamic brake axles where required on mountain grade subdivisions.

**Military Train**

Unit military trains containing shipments on cars with end of car-cushioning, shown on the train profile as EOC, shall have no more than a total of 80 cars in the train when operating with conventional power (head end only). Train may operate in excess of 80 cars but no more than 90 when operating with a distributed power consist, either cut-in and/or on rear of train. If train (DP or non-DP) exceeds 60 cars, speed is restricted to 45 mph.

**Loaded Coiled Steel Cars**

The maximum number of loaded coiled steel cars and GRS/G0S on any train is limited per the table below:

| Total Coil Cars in Train | Maximum # of GRS/G0S Coil Cars |
|---|---|
| 80 | 0 |
| 70 | 10 |
| 65 | 20 |
| 60 | 30 |
| 55 | 40 |
| 50 | 50 |

Additional Train Makeup Restrictions Applicable to Trains Containing Coiled Steel Cars Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft. Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP - 496.1) and Wichita Falls and UP Lufkin.

**1. Conventional Unit Coiled Steel Trains**

Conventional (non-DP) unit trains made up entirely of loaded G0S and GRS cars are limited to 30 cars total and will be operated in a 2x0 configuration.

**2. Conventional Manifest Trains Containing Coiled Steel Cars (mixed freight without distributed power)**

| Total Train Tonnage | Maximum Loaded Steel Cars with End of Car Cushioning Allowed |
|---|---|
| 4,500 tons or less | 30 |
| 4,501 - 5,500 tons | 25 |
| 5,501 - 6,500 tons | 20 |
| 6,501 - 7,500 tons | 15 |
| 7,501 - 8,500 tons | 10 |
| Greater than 8,500 tons | 0 |

When moving on conventional trains, all loaded shipments identified by car kind code G0S or GRS (includes ATSF, BN, BNSF, foreign and private equipment) must be placed within the first 20 cars of the train and be as close to the locomotives as practical. When handling more than 20 G0S or GRS loaded shipments, these cars must be placed directly behind locomotive consist.

**3. Unit Coiled Steel Train Operating with DP**

Unit trains made up entirely of loaded G0S and GRS cars are limited to 50 cars total and will be operated in a 1X2 DP configuration with dynamic brakes cut out on the trail unit of the remote DP consist. The dynamic brakes must remain cut in on the controlling DP remote unit.

**4. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with DP on Rear**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars)
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist.

**5. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with Cut In DP**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars) ahead of the cut in DP
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist
- May not have more than 15 additional cars equipped with end of car cushioning behind the cut in DP.

**Wind Tower Trains**

Wind Tower Trains containing loads and empty idler cars shall have no more than a total of 80 cars in the train. Trains exceeding 5,500 tons must operate with a single distributed power unit either cut in or on rear of train.

**47(A). Train Makeup Instructions and Locomotive Requirements Applicable to Conventional, Distributed Power and Manned Helpers**

Note: In the application of instructions below, the terms "DP and "DP remote consist(s)" refers to trains utilizing distributed power and/or manned helper consists. The term "rear end" refers to the very end of the train and "cut in" refers to placement within the train with cars on both sides. RPA refers to Rated Powered Axles and can be referenced in SSI, Locomotive Data Table, 2(B).

**1. Maximum Rated Power Axle (RPA) Limitations for Conventional, Distributed Power and Manned Helper Placement**

| Train Type | Head End | Cut In DP/ Helper | Rear end DP/ Helper |
|---|---|---|---|
| Manifest | 42 | 24 | 16 |
| Intermodal | 48 | 24 | 16 |
| Empty Bulk Commodity | 24 | 16 | 8 |
| Loaded Bulk Commodity (no empties in train) | 32 | 40 | 24 |

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**DP RPA Differential:**
Single Remote/Helper Consist- If operating with one distributed power consist either cut-in or on the rear, total RPA of head end locomotive consist must not exceed 16 RPA of the total RPA of DP/Helper locomotive remote consist. In addition, total RPA of the remote consist must not exceed 8 RPA of the head end locomotive consist.

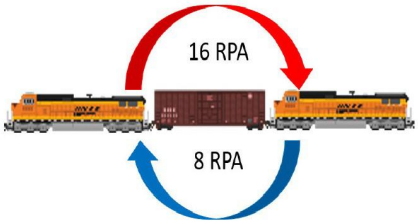



*Figure 1.*

**Multiple DP Consists**
If operating with distributed power cut-in and on the rear, individual consist RPA must not exceed 16 RPA of the next consist towards the rear of the train (Head to Mid; Mid to rear). In addition, RPA of each consist must not exceed 8 RPA of the next consist towards the head end of the train (rear to mid; mid to head end).
Exception - Does not apply to loaded bulk commodity trains.

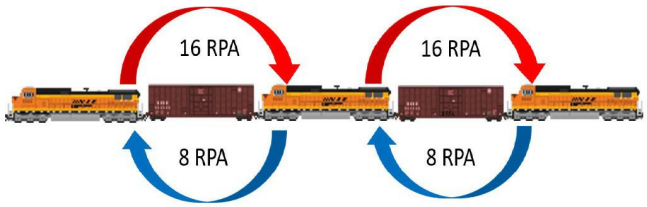



*Figure 2.*

Exception: Trains exceeding 8,000 tons operating on the heavy grade subdivisions listed below, must limit the total RPA of the head end locomotive consist to no more than 8 RPA greater than the total RPA of the DP/Helper locomotive remote consist(s).

Cajon (Main 3, MP 56.6 - MP 62.8, eastward only)
Gateway (MP 178.0 - 188.0, northward only)
Glorieta (MP 775.0 - MP 842.0)
Raton (MP 639.0 - MP 660.0)
North County Transit Coaster (NCTC) (MP 250 - 255)
Scenic (MP 1694.5 - MP 1731.3)
Stampede (MP 41.0 - MP 58.5)
UPRR Moffat Tunnel (MP 17 - 63)
UPRR Mojave (MP 331.3 - MP 381.3, southward only)
UPRR Provo (MP 626 - 685)

**2. DP Remote and ETD Placement Limitations**

| Distributed Power and ETD Length Limitations | |
|---|---|
| **Train description** | **Maximum length allowed, excluding locomotives** |
| Conventional trains and trains operating with a cut-in single DP/ helper consist not equipped with mid-train ETD repeater | 10,000 ft between lead locomotive consist and end of train device (ETD) on rear<br>Exception: Loaded vehicle trains - 8,000 ft between lead locomotive consist and ETD on rear |
| Trains operating with cut-in DP/ helper consist (mid-train ETD repeater) with 2-way ETD | 16,000 ft between lead consist and ETD |
| Solid intermodal trains containing no autoracks operating with a single DP remote consist on rear | 12,000 ft between lead consist and remote DP consist (Lead locomotive and DP remote must be LXA equipped) |
| Solid intermodal (without LXA), manifest, or bulk commodity trains operating with a single DP remote consist on rear | 10,000 ft between lead consist and remote DP consist |
| Train of any type operating with two DP remote consists, cut in and on rear of train | 16,000 ft between lead consist and rear remote DP consist |

Placement instructions for Cut in/Helper DP Consists:

a. One DP Remote Consist

A single DP remote consist cut into the train must not have the cut in DP consist further than 10,000 feet from the head end of train (excluding locomotive length). Single DP consists cut into the train exceeding 8 RPA must be cut in at 300 tons per axle exceeding 8 RPA, but no closer to the head end than 20 cars forward of mid-train, by car count, as long as train makeup requirements next to DP remote consist outlined below in Item 47(A) 3 and 4 are met.

Exception: The requirement to cut in at 300 tons per axle exceeding 8 RPA does not apply to solid intermodal trains, trains with solid intermodal equipment behind cut in DP/Helper consist or trains with loaded bulk commodity cars ahead of cut in DP/Helper consist. On solid intermodal trains, the DP remote consist must be cut in no closer than 1000 feet forward of mid train by length, as long as train makeup requirements next to DP remote consist outlined below in item 47(A) 3 and 4 are met.

b. Two DP Remote Consists

When two DP remote consists are used, they must be positioned with one DP remote consist cut into the train, and one DP remote consist at the rear end. The cut in DP remote consist must not be cut in further than 10,000 feet from the head end of train (excluding locomotive length) and must not be closer to the head end than 20 cars forward of mid-train, by car count.

Exception: Solid intermodal trains operating with two DP remote consists must not have the cut in DP remote consist further than 10,000 feet from the head end of train (excludes locomotive lengths) and must not be closer to the head end than 1,000 feet forward of mid-train, by length.

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### 3. System Distributed Power and Manned Helper Train Makeup Restrictions

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | | Restricted Cars |
|---|---|---|
| **Cut In DP/ Helper, any RPA** | **Rear end DP/ Helper, any RPA** | |
| Must be at rear of train behind any rear end DP/helper consist | | Cars indicated as rear end only. |
| | | AMGX 2-unit solid drawbar connected gondolas |
| | | Occupied caboose |
| **Cut In DP/Helper 9 - 24 RPA** | **Rear end DP/Helper 9 - 16 RPA** | |
| Restricted cars listed must not be within **5 cars or platforms/ wells** ahead of or behind cut in consist.<br>Exception: Does not apply to empty bulk commodity/ combination trains, trains with only baretable equipment behind the cut in DP or to loaded single well double stack cars of any weight (car kind beginning with QU or QK). | Restricted cars listed must not be within **10 cars or platforms/wells** ahead of consist on rear end. | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | | Any conventional car (non-multiplatform) weighing less than 45 tons. Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) |
| | | Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/ container on either segment/ platform. |
| | | Empty platforms/wells of a multiplatform car. All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not. |

### 4. Additional Train Makeup Restrictions Applicable to DP Trains Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP 496.1), Wichita Falls and UPRR Lufkin Subdivisions.

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | Restricted Cars |
|---|---|
| **Cut In DP/Helper or rear end DP/Helper up to 8 RPA** | |
| Restricted cars listed must not be placed within **5 cars or platforms/wells** of DP/Helper consist. (cut in and/or on rear end) | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform. |
| **Cut In or Rear End DP/Helper consist of 9 – 24 RPA** (Does not apply to trains with 2, single-locomotive DP remotes) | |
| Restricted cars listed must not be placed **within 10 cars/ platforms of lead consist and remote consist(s)** | Any conventional car (non-multiplatform weighing less than 45 tons. Exception: Does not apply to empty bulk commodity/ combination trains operating with cut in DP consists or loaded single well double stack cars of any weight (car kind beginning with QU or QK). |
| Restricted cars listed **must not be placed between lead consist and remote consist(s)** | Intermodal equipment other than double stack and autoracks, regardless of how loaded. (Conventional intermodal flat cars, spine cars - car kind QM, QC, QO, Q5 and QE and twin flats - car kinds FM, QB, QD and QL.) |
| | No more than 30 cars with end of car cushioning ahead of any individual consist of 9 RPA or greater. (Does not apply to solid intermodal and solid loaded bulk commodity unit trains with cars equipped with end of car cushioning.) |

### 5. Limiting Tractive Effort When Using Manned Helpers with Trains Not in Compliance with Train Makeup Guidelines:

Conventional trains may be helped from the rear of train with a manned helper only (DP may not be used) when exceeding axle limitation guidelines above if train is disabled and not in compliance with train makeup restrictions for DP/Helper service as outlined above. Tractive effort limit when exceeding 8 rated powered axles and helping trains not in compliance with DP/Helper train makeup guidelines as follows:

**Manned Helper Controlling Locomotive with Amperage Displayed:**
8 rated powered axles - no restriction
10 rated powered axles - 1,000 amps
12 rated powered axles - 950 amps
14 rated powered axles - 900 amps
16 rated powered axles - 850 amps

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**Manned Helper Controlling Locomotive with Tractive Effort Displayed:**

Limit total tractive effort of AC consist to 100,000 lbs. Total AC locomotive consist tractive effort is determined by multiplying tractive effort indicated on display of controlling locomotive and multiplying by the total number of operative AC locomotives in the consist.

Example: A controlling unit of a two-unit AC locomotive consist should not be allowed to produce more than 50,000 lbs. of tractive effort.

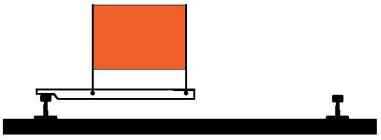
**48. Operations Testing**

BNSF will use the following banners as stop indications when operations testing for compliance where train, engine or on-track equipment movements are required to stop short of the items listed in operating rules GCOR 6.22 (excludes Banner #3), 6.27, 6.28 and MWOR 6.27, 6.28, 6.50:

1. A high visibility red/orange Stop/Obstruction banner displayed square on point to simulate on-track equipment.




2. A high visibility red/orange Stop banner, square or rectangular in shape and approximately 18 by 18 inches in size.



Banner 1 or 2 may be used on any track (main, controlled siding, yard, industry, etc.) for movements governed by GCOR/MWOR 6.27 Restricted Speed, GCOR/MWOR 6.28 Movement on Other Than Main Track, GCOR 6.22 Maintaining Control of Train or Engine (stopping 400 feet short of banners is applicable on a Main Track or controlled siding only), or MWOR 6.50 Movement of On-Track Equipment. These banners will be placed between the rails of the track, and simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banner.

3. Banner 3 may only be used on yard or industry tracks governed by GCOR/MWOR 6.28. Do not use on switches equipped with switch point indicators (GCOR 8.10) or sidings in TWC territory to simulate a switch or derail lined improperly.



High visibility red/orange with horizontal yellow bar Switch Point/Derail Location Stop banners, square or rectangular in shape and approximately 5 inches by 6 inches. These banners may only be used at existing switch point or derail locations, with one banner placed on each rail directly across from one another, to simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banners.

**49. Responsibilities and Certification**

**Engineers**

In the application of the following guidelines, the term "engineer" applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

Before beginning each shift or tour of duty, all engineers must ensure their CFR Part 240 certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before operating a locomotive.

**1. General Responsibilities**

Engineers are responsible for and must maintain their certification.

a. Engineers must be certified in the appropriate class of service to operate a locomotive.
b. Engineers must certify according to federal regulations (49 CFR Part 240) and BNSF Railway certification requirements and programs.
c. Engineers must have their CFR Part 240 electronic certificate accessible, displaying the correct class of service on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.
d. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Engineers must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.
e. Engineers and Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.

     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, engineer must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.
f. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.

Changes must be reported when:

1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement
2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meets the minimum requirements without any corrective device.

The minimum hearing and vision requirements are:

1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels
2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Engineer Certification Requirements for Operating Locomotives**

Certified engineers may operate locomotives under the following conditions:

a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.

b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hostling purposes.

c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.

d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Before operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.

e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
Note: An RCO Operator must have a minimum of 30 tours of duty as a Certified Remote Control Operator before training a student.

f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed before October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

**3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment**

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency,
- Route familiarization, and
- Special or unique equipment.

**a. Skills Proficiency**

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception: The period is extended to 12 months for RCO if they are also certified as a train service engineer.

**b. Route Familiarization**

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six months:

Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions.

Train service engineers assigned to new routes or who become unqualified on current assigned routes are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or requalify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train service engineer to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

**4. Special Equipment Proficiency**

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment. A certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

**5. Route Familiarization Pilots**

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

a. Train Service Engineers:
   1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
   2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

b. Remote Control Operators:
   1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
   2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Conductors**

In the application of the following guidelines, the term"conductor" applies to a crew member in charge of a train or yard crew and passenger conductor who has received emergency preparedness training.

Before beginning each shift or tour of duty, all conductors must ensure their CFR Part 242 electronic certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before performing service as a conductor.

**1. General Responsibilities (applies to any person with certification as a Conductor)**

Any person certified as a Conductor is responsible for and must maintain their certification.

a. Conductors must certify according to federal regulations (49 CFR Part 242) and BNSF Railway certification requirements and programs.

b. Conductors must have their CFR Part 242 electronic certificate accessible on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.

c. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Conductors must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.

d. Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   • Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   • Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.
   Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, conductor must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.

e. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.
   Changes must be reported when:
   1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement.
   2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meet the minimum requirements without any corrective device.

   The minimum hearing and vision requirements are:
   1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels

2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Maintaining Conductor Route Familiarization**

Certified employees must maintain proficiency as a conductor as it pertains to route familiarization.

**Route Familiarization**
Route familiarization is required in order to perform service as a certified conductor without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by local supervisor, route familiarization is maintained by observing the route biennially based on the calendar year when performing service in any capacity (engineer or trainman). If the route has not been observed once in a 24 month period, qualification will expire at the end of the calendar year. Other methods of maintaining route familiarization may also be available as specified by local supervisor.

Conductors assigned to new routes or who become unqualified on current assigned routes are required to contact their local supervisor who will advise the number of trips required to qualify or re-qualify on that route. If and when a conductor is qualified at the completion of these trips, a supervisor will then authorize the conductor to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does not include a section of main track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**3. Route Familiarization Pilots**

Employees will be assisted by a pilot if called to perform service as a conductor on a route lacking territory qualification:

a. When a conductor lacks Main Track territory qualification, the pilot must be a certified employee and meets the territory qualification requirements for the Main Track physical characteristics and is not an assigned member of the crew.
b. When a conductor was previously qualified on the Main Track, but qualifications have expired, the pilot can be an assigned member of the crew, other than the locomotive engineer who meets the territorial qualification requirement for Main Track physical characteristics.

If a conductor is called and lacks territorial qualification on other than Main Track and the assistance of a certified employee pilot is not practicable, the conductor must reference an appropriate job aid to satisfy this requirement.

**50. Rail Security Sensitive Material (RSSM) Instructions**

**Chain of Custody Documentation for Rail Security Sensitive Material**

When RSSM shipments in BNSF custody are set out enroute due to mechanical defect, the Resource Operations Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3, who will arrange for attendance. The PBX/MRAS radio system may be used for this communication.

Federal regulations require Chain of Custody documentation for Rail Security Sensitive Material (RSSM) in the cases described below.

Rail Security-Sensitive Material (RSSM) includes a shipment of one or more of the categories and quantities listed below:

1. Rail car containing more than 5,000 lbs (2,268 kg) of a Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous by inhalation, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation, and Division 6.1 liquids assigned to hazard zone A or hazard zone B.
3. Rail car containing a highway route-controlled Class 7 (radioactive) material.

These materials are identified with the Special Car Handling Code “RC”, Restricted Commodity , and /or “RSSM HAZMAT” in the starred box that identifies hazmat shipments.

Except at locations identified by Division General Order, employees must execute and document Positive Transfers of Custody any time a loaded rail car identified by SCHI code “RC” is:

1. Pulled from or spotted to an industry
2. Delivered or received in interchange

Employees can make a positive transfer of custody when:

1. Physically located on site in reasonable proximity to the rail car.
2. Capable of responding to unauthorized access or activity at or near the rail car, including immediately contacting law enforcement or other authorities.
3. They immediately respond to unauthorized access or activity at or near the rail car by contacting law enforcement or other authorities.

This requirement applies both to BNSF employees and representatives of shippers, consignees, and interchange carriers making positive transfers of custody. A positive transfer of custody can take place only if representatives of both companies are present.

When a representative of an interchange carrier is not available where required, “RC” shipments must not be delivered, but may be received if proper paperwork can be obtained per Hazardous Material Instructions Item II. Contact a supervisor for disposition of “RC” shipments when a representative is not available to accept delivery.

If an RSSM shipment is delivered by connecting carrier and left on the interchange transfer unattended, transfer of custody information must show connecting carrier employee’s name as “unattended”.

Any car identified an RSSM shipment will require “Chain of Custody” documentation. Empty “residue” cars will not be identified with this code.

BNSF employees must confer with the customer or interchange road representative to ensure both of their documentation records contain the same information. The chain of custody documentation must include the following:

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1. The first six digits of the employee's ID (e.g. b123456)
2. The date and time of the actual custody transfer.
3. The station at which the "RC" cars are transferred.
4. The person's first and last name to or from whom custody is being transferred.
5. The car initials and numbers.

Completing the chain of custody documentation:

1. TSS, TSS Xpress, or Mobile Train Reporting (MTR) are the preferred methods for documentation.
2. Utilize the Chain of Custody Form on the back of the GTB or work order when TSS, TSS Xpress, or MTR is not available due to work performed on line.
   a. When documenting a written chain of custody, employees must enter the information in TSS or TSS Xpress when access to a computer system becomes available.
   b. If a computer system is not available, utilize the FAX number at top of printed chain of custody form.
   c. Hours of service employees must complete the chain of custody documentation before expiring from duty under the hours of service.
   d. When documenting the chain of custody in printed form, employees must deliver the chain of custody documentation to a relief crew or supervisor for entry in to the system via TSS, TSS Xpress, or fax prior to the completion of the tour of duty when possible. This delivery must also be documented on the chain of custody form.
   e. When not possible to deliver the printed chain of custody documentation to a relief crew or supervisor prior to completion of the tour of duty, employees must enter the chain of custody documentation into the system via TSS, TSS Xpress, or fax when returning for next tour of duty.

Chain of custody procedures when receiving an "RC" freight car in interchange:

1. Loaded "RC" freight cars entering a yard from a foreign carrier must be recorded by the BNSF employee assuming responsibility to receive the "RC" car.
2. Employees should use the new TSS or TSS Xpress function "CUSTODY" to record the person's name from which custody is received along with the date and time of custody interchange. If an advance waybill list is not available, documentation must be done on printed format and entered into TSS or TSS Xpress when available.
3. Division Management will identify the point of contact for acceptance of interchange at each location.
4. A visual security inspection must take place with these cars when practical and must take place before departure from the interchange point. This is typically done during normal freight car safety inspections that are currently performed.

**Locations of High Threat Urban Area (HTUA)**

The following BNSF locations have been designated as HTUAs.

| | | |
|---|---|---|
| Anaheim | Kansas City | Riverside, CA |
| Bakersfield, CA | Los Angeles | San Antonio |
| Bay Area | Memphis | Sacramento |
| Chicago | New Orleans | San Diego |
| Dallas/Ft Worth | Oklahoma City | Seattle |
| Denver | Omaha | St Louis |
| El Paso | Phoenix | Tulsa |
| Houston | Portland | Twin Cities |

HTUA and associated boundaries will be identified by Division General Order.

**Attendance Requirements**

Shipments identified as "RSSM" must be attended at all times while inside an HTUA. RSSM shipments inside an HTUA are considered attended when:

- Located at an industry, when plant personnel have accepted chain of custody.
- Located in a yard which is staffed 24 hours per day.
  - Employees in the yard must be able to routinely view cars physically or by camera.
  - Employees designated as responsible for RSSM cars will be identified by Division General Order and must be able to respond to unauthorized access or activity by contacting law enforcement or other authorities.
- Located within a train with an on-duty crew, authorized employee or representative physically present.

Exceptions to above requirement will be identified by Division General Order.

Employees designated by Division General Order as responsible for location of RSSM cars inside HTUA are required to:

- Contact law enforcement or other authorities to report unauthorized access to RSSM cars.
- Know the placards and designations used to identify RSSM shipments.

Employees responsible for handling RSSM cars within the HTUA are required to:

- Know the contact information outlined by Division General Order for BNSF personnel who are responsible for location of cars within HTUA.
- Know the placards and designations used to identify RSSM shipments.

Note: BNSF Crews operating on foreign railroads must comply with these attendance requirements unless otherwise specified by the foreign railroad's instructions.

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**Appendix A - Track Flagging Examples**

The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by rule.

Yellow and yellow-red flags will be displayed on all main tracks and sidings leading to the track affected. Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In multiple Main Track territory, when a restriction is placed on a crossover, or in single Main Track territory when a restriction is placed on a turnout not affecting the Main Track, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

In situations in multiple Main Track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.

**Single Main Track**

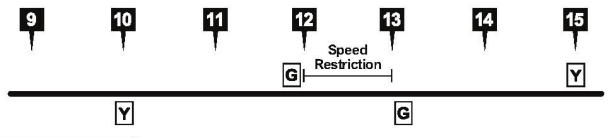



Diagram 1.

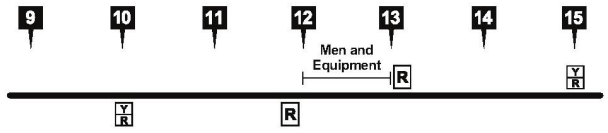



Diagram 2.

**Display of Green Flags with Overlapping Yellow Flags**

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

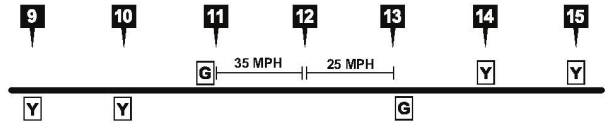



Diagram 3.

**Single Main Track (Sidings at the 2-mile point)**

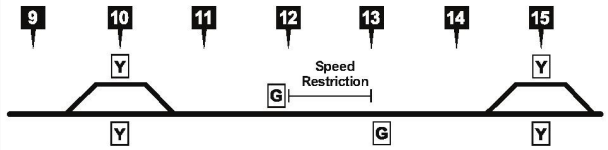



Diagram 4.

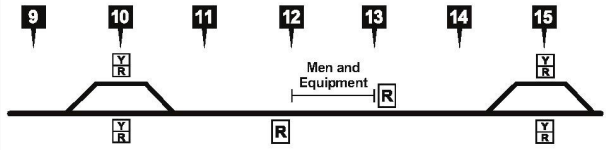



Diagram 5.

**Restriction on Siding**

Speed restrictions on sidings will be short flagged. Location of short flag must be indicated in track bulletin or track warrant.

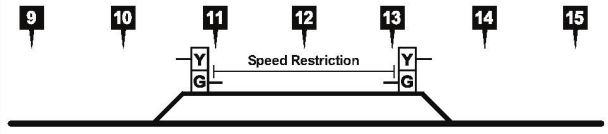



Diagram 6.

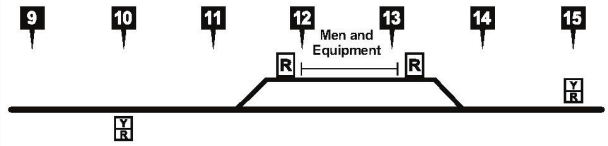



Diagram 7.

Train crews would determine the track affected by the information contained in their track bulletin.

**Speed Restriction on Main Track Where Siding is Adjacent**

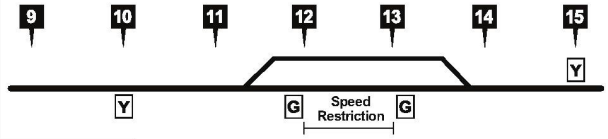



Diagram 8.

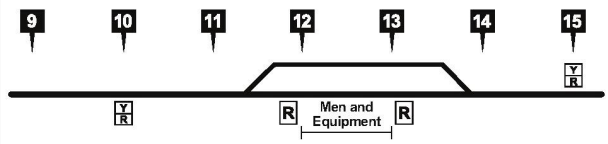



Diagram 9.

Train crews would determine the track affected by the information contained in their track bulletin.

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## Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance

Location of short flag must be indicated in track bulletin or track warrant.

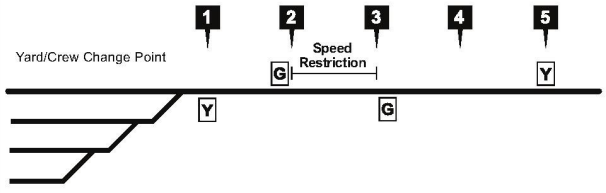



Diagram 10.

## When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

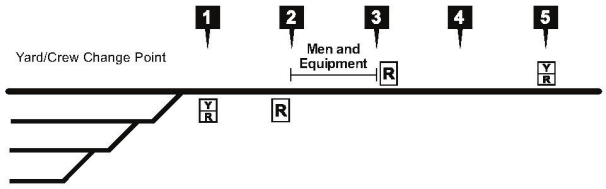



Diagram 11.

## Speed Restriction at Foreign Line Junction

Location of short flag must be indicated in track bulletin or track warrant.

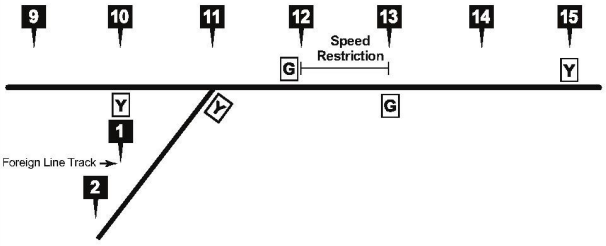



Diagram 12.

## Foreign Line junction Near Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

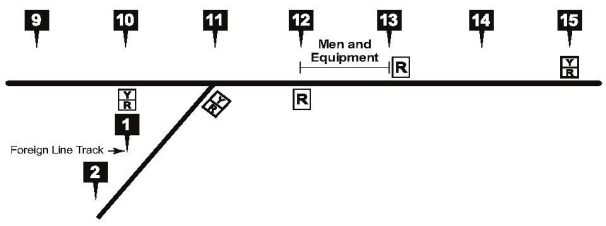



Diagram 13.

## Speed Restriction at BNSF Junction

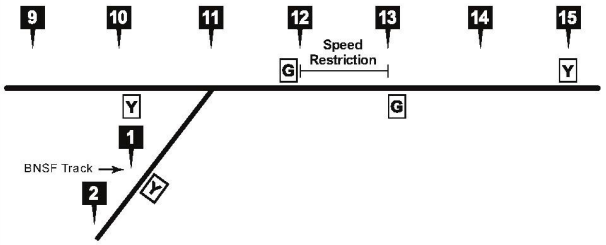



Diagram 14.

## BNSF Junction Near Men and Equipment

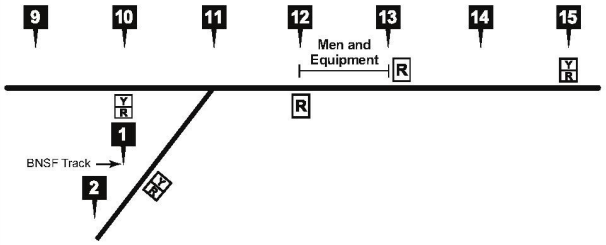



Diagram 15.

## Men and Equipment with Junction and Intervening Switch

Red flags at the limits of Form B and Main Track junctions within the limits.

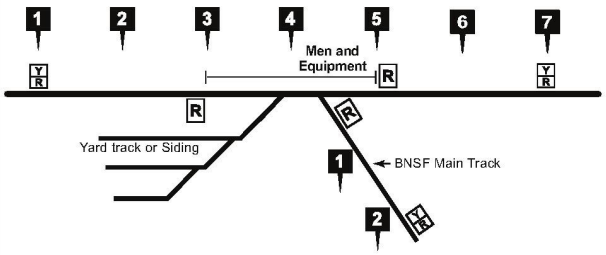



Diagram 16.

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## Speed Restriction Just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

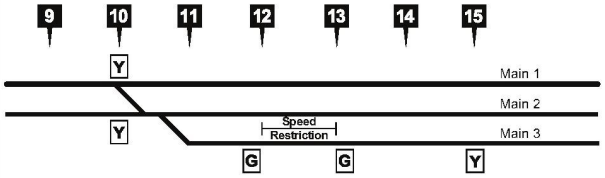



Diagram 17.

## Men and Equipment just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

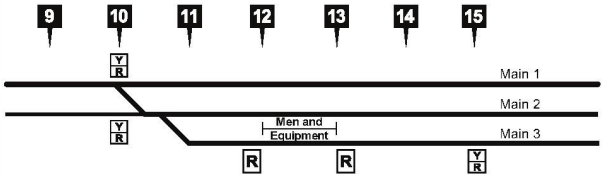



Diagram 18.

## Speed Restriction Just Beyond Turnout to Main 1

Train crews would determine the track affected by the information contained in their track bulletin.

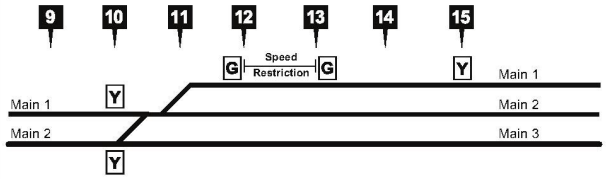



Diagram 19.

## Men and Equipment Just Beyond Turnout to Main 1

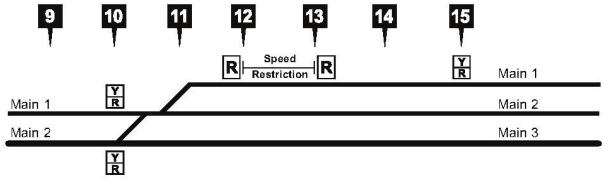



Diagram 20.

## Speed Restriction on Multiple Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

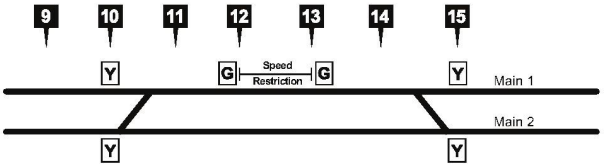



Diagram 21.

## Men and Equipment on Multiple Main Track

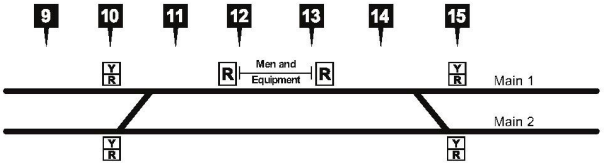



Diagram 22.

## Speed Restriction on Main 1 (CTC Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.

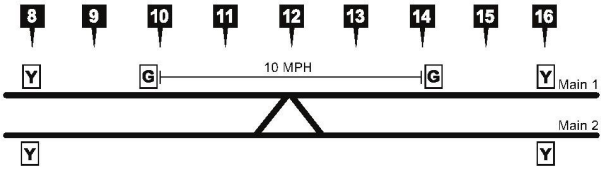



Diagram 23.

## Speed Restriction on Main 1 (CTC and ABS Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.

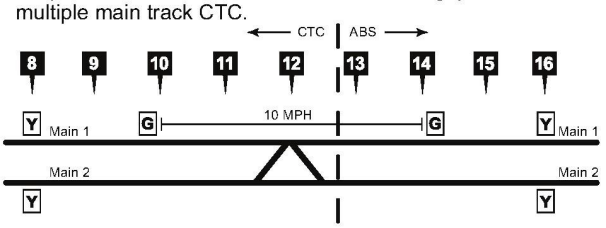



Diagram 24.

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.

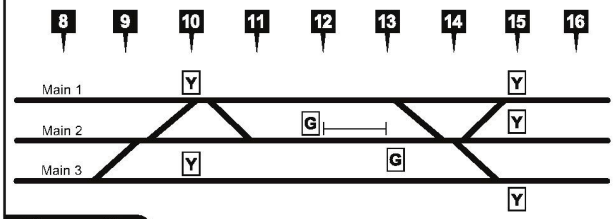



Diagram 25.

**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**

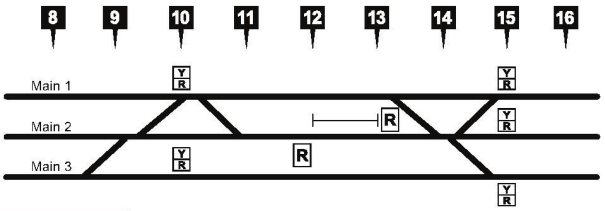
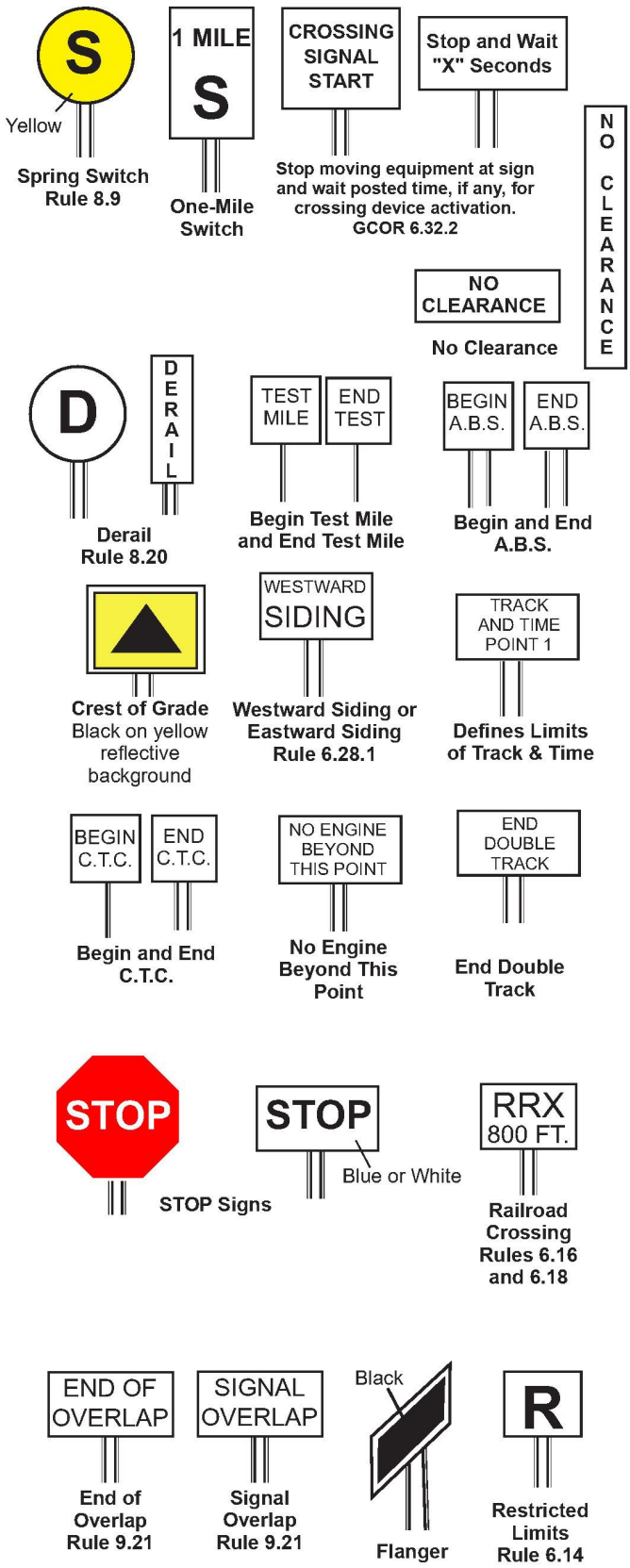
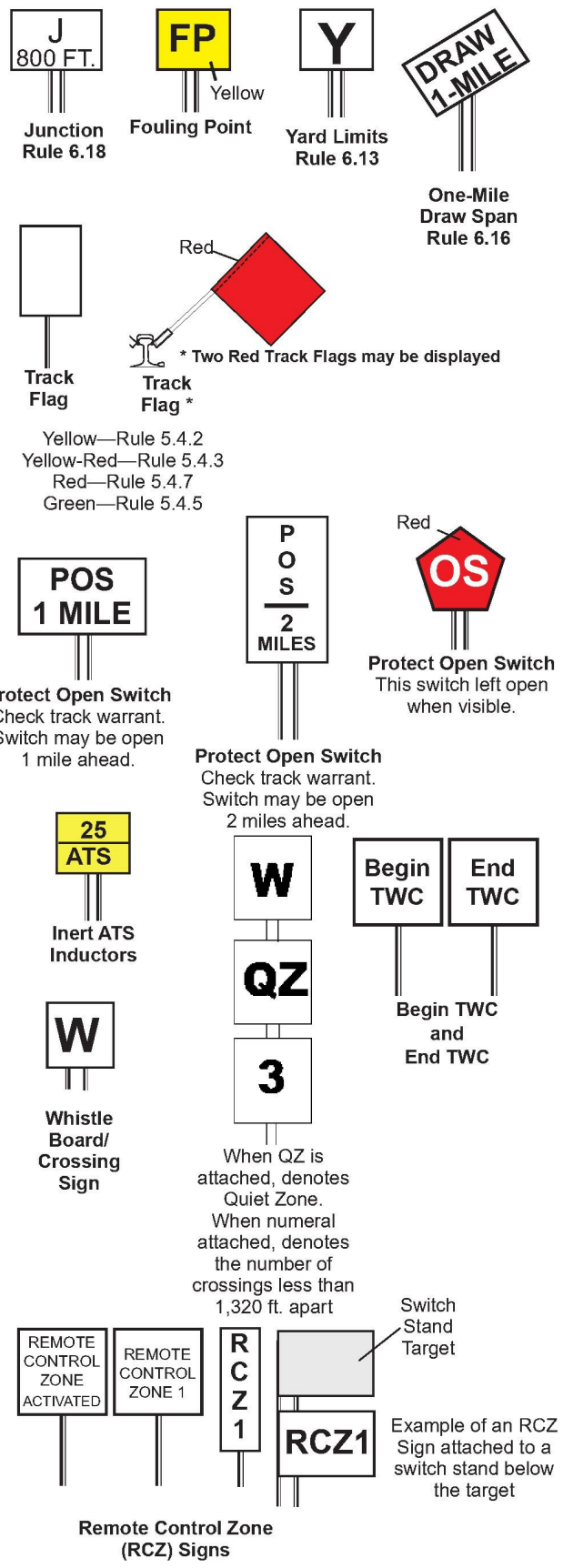



Diagram 26.

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Appendix B - Roadway Signs



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**Appendix C - Division/Subdivision Index**

| Division | Subdivisions |
|---|---|
| California | Alameda Corridor |
| | Bakersfield |
| | Cajon |
| | Harbor |
| | Lucerne Valley |
| | Mojave |
| | Needles |
| | San Bernardino |
| | San Diego |
| | Stockton |
| Chicago | Aurora |
| | Barstow |
| | Beardstown |
| | Brookfield |
| | Chicago |
| | Chillicothe |
| | Des Moines |
| | Marceline |
| | Mendota |
| | Ottumwa |
| | Peoria |
| | St. Croix |
| | Thomas Hill |
| | Yates City |
| Heartland | Afton |
| | Amory |
| | Bayard |
| | Bellwod |
| | Birmingham |
| | Cherokee |
| | Council Bluffs |
| | Creston |
| | Cuba |
| | Fort Scott |
| | Giltner |
| | Hannibal |
| | Napier |
| | Omaha |
| | Ravenna |
| | River |
| | St. Joseph |
| | Thayer North |
| | Thayer South |
| Kansas | Arkansas City |
| | Boise City |
| | Dalhart |
| | Douglass |
| | Emporia |
| | Hereford |
| | La Junta |
| | Panhandle |
| | Raton |
| | Strong City |
| | Topeka |
| | Twin Peaks |
| Montana | Big Sandy |
| | Broadview |
| | Choteau |
| | Circle |
| | Colstrip |
| | Copper City |
| | Crosby |
| | Dickinson |
| | Fairfield |
| Montana (cont'd) | Forsyth |
| | Ft. Benton |
| | Glasgow |
| | Great Falls |
| | Grenora |
| | Helena |
| | Hettinger |
| | Hi Line |
| | Kootenai River |
| | Laurel |
| | Lewistown |
| | Milk River |
| | Mobridge |
| | Niobe |
| | Sarpy Line |
| | Scobey |
| | Sidney Line |
| | Sweet Grass |
| | Valier |
| Northwest | Bellingham |
| | Cherry Point |
| | Coeur d'Alene |
| | Columbia River |
| | Fallbridge |
| | Gateway |
| | Kettle Falls |
| | Lakeside |
| | New Westminster |
| | Oregon Trunk |
| | Scenic |
| | Seattle |
| | Spokane |
| | Stampede |
| | Sumas |
| | Yakima Valley |
| Powder River | Akron |
| | Angora |
| | Beatrice |
| | Big Horn |
| | Black Hills |
| | Brush |
| | Butte |
| | Campbell |
| | Canyon |
| | Casper |
| | Cody |
| | Dutch |
| | Front Range |
| | Golden |
| | Hastings |
| | Lester |
| | Orin |
| | Pikes Peak |
| | Pueblo |
| | Sand Hills |
| | Spanish Peaks |
| | Valley |
| | Wymore |
| Red River | Avard |
| | Bay City |
| | BBRX |
| | Chickasha |
| | Conroe |
| | Creek |
| | DFW |
| | Ft. Worth |
| | Galveston |
| Red River (cont'd) | Houston |
| | Lafayette |
| | Lampasas |
| | Longview |
| | Madill |
| | Mykawa |
| | Plainview |
| | Red River Valley |
| | Red Rock |
| | Silsbee |
| | Slaton |
| | Sooner |
| | Venus |
| | Wichita Falls |
| Southwest | Carlsbad |
| | Clovis |
| | Coronado |
| | Defiance |
| | El Paso |
| | Gallup |
| | Glorieta |
| | Lee Ranch |
| | Mines |
| | Phoenix |
| | Seligman |
| | Springerville |
| Twin Cities | Aberdeen |
| | Allouez |
| | Appleton |
| | Brainerd |
| | Browns Valley |
| | Canton |
| | Casco |
| | Corson |
| | Devils Lake |
| | Drayton |
| | Glasston |
| | Grand Forks |
| | Hanley Falls |
| | Hannah |
| | Hib Tac |
| | Hillsboro |
| | Hinckley |
| | Jamestown |
| | KO |
| | Lakes |
| | Madison |
| | Marshall |
| | Mayville |
| | Midway |
| | Mitchell |
| | Monticello |
| | Moorhead |
| | Morris |
| | Noyes |
| | O'Neill |
| | Prosper |
| | Rolla |
| | St. Paul |
| | Sioux City |
| | Staples |
| | Warwick |
| | Watertown |
| | Wayzata |
| | Westhope |
| | Zap Line |

TOC Home

**Subdivision Index**

| Subdivision | Division |
|---|---|
| Aberdeen | Twin Cities |
| Afton | Heartland |
| Akron | Powder River |
| Alameda Corridor | California |
| Allouez | Twin Cities |
| Amory | Heartland |
| Angora | Powder River |
| Appleton | Twin Cities |
| Arkansas City | Kansas |
| Aurora | Chicago |
| Avard | Red River |
| Bakersfield | California |
| Barstow | Chicago |
| Bay City | Red River |
| Bayard | Heartland |
| BBRX | Red River |
| Beardstown | Chicago |
| Beatrice | Powder River |
| Bellingham | Northwest |
| Bellwood | Heartland |
| Big Horn | Powder River |
| Big Sandy | Montana |
| Birmingham | Heartland |
| Black Hills | Powder River |
| Boise City | Kansas |
| Brainerd | Twin Cities |
| Broadview | Montana |
| Brookfield | Chicago |
| Browns Valley | Twin Cities |
| Brush | Powder River |
| Butte | Powder River |
| Cajon | California |
| Campbell | Powder River |
| Canton | Twin Cities |
| Canyon | Powder River |
| Carlsbad | Southwest |
| Casco | Twin Cities |
| Casper | Powder River |
| Cherokee | Heartland |
| Cherry Point | Northwest |
| Chicago | Chicago |
| Chickasha | Red River |
| Chillicothe | Chicago |
| Choteau | Montana |
| Circle | Montana |
| Clovis | Southwest |
| Cody | Powder River |
| Coeur d'Alene | Northwest |
| Colstrip | Montana |
| Columbia River | Northwest |
| Conroe | Red River |
| Copper City | Montana |
| Coronado | Southwest |
| Corson | Twin Cities |
| Council Bluffs | Heartland |
| Creek | Red River |
| Creston | Heartland |
| Crosby | Montana |
| Cuba | Heartland |
| Dalhart | Kansas |
| Defiance | Southwest |
| Des Moines | Chicago |
| Devils Lake | Twin Cities |
| DFW | Red River |
| Dickinson | Montana |
| Douglass | Kansas |
| Drayton | Twin Cities |
| Dutch | Powder River |
| El Paso | Southwest |
| Emporia | Kansas |
| Fallbridge | Northwest |
| Fairfield | Montana |
| Forsyth | Montana |
| Fort Scott | Heartland |
| Front Range | Powder River |
| Ft. Benton | Montana |
| Ft. Worth | Red River |
| Gallup | Southwest |
| Galveston | Red River |
| Gateway | Northwest |
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| Glasgow | Montana |
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| Grand Forks | Twin Cities |
| Great Falls | Montana |
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| Hannah | Twin Cities |
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| Helena | Montana |
| Hereford | Kansas |
| Hettinger | Montana |
| Hi Line | Montana |
| Hib Tac | Twin Cities |
| Hillsboro | Twin Cities |
| Hinckley | Twin Cities |
| Houston | Red River |
| Jamestown | Twin Cities |
| Kettle Falls | Northwest |
| KO | Twin Cities |
| Kootenai River | Montana |
| La Junta | Kansas |
| Lafayette | Red River |
| Lakes | Twin Cities |
| Lakeside | Northwest |
| Lampasas | Red River |
| Laurel | Montana |
| Lee Ranch | Southwest |
| Lester | Powder River |
| Lewistown | Montana |
| Longview | Red River |
| Lucerne Valley | California |
| Madill | Red River |
| Madison | Twin Cities |
| Marceline | Chicago |
| Marshall | Twin Cities |
| Mayville | Twin Cities |
| Mendota | Chicago |
| Midway | Twin Cities |
| Milk River | Montana |
| Mines | Southwest |
| Mitchell | Twin Cities |
| Mobridge | Montana |
| Mojave | California |
| Monticello | Twin Cities |
| Moorhead | Twin Cities |
| Morris | Twin Cities |
| Mykawa | Red River |
| Napier | Heartland |
| Needles | California |
| New Westminster | Northwest |
| Niobe | Montana |
| Noyes | Twin Cities |
| Omaha | Heartland |
| O'Neill | Twin Cities |
| Oregon Trunk | Northwest |
| Orin | Powder River |
| Ottumwa | Chicago |
| Panhandle | Kansas |
| Peoria | Chicago |
| Phoenix | Southwest |
| Pikes Peak | Powder River |
| Plainview | Red River |
| Prosper | Twin Cities |
| Pueblo | Powder River |
| Raton | Kansas |
| Ravenna | Heartland |
| Red River Valley | Red River |
| Red Rock | Red River |
| River | Heartland |
| Rolla | Twin Cities |
| San Bernardino | California |
| San Diego | California |
| Sand Hills | Powder River |
| Sarpy Line | Montana |
| Scenic | Northwest |
| Scobey | Montana |
| Seattle | Northwest |
| Seligman | Southwest |
| Sidney Line | Montana |
| Silsbee | Red River |
| Sioux City | Twin Cities |
| Slaton | Red River |
| Sooner | Red River |
| Spanish Peaks | Powder River |
| Spokane | Northwest |
| Springerville | Southwest |
| St. Croix | Chicago |
| St. Joseph | Heartland |
| St. Paul | Twin Cities |
| Stampede | Northwest |
| Staples | Twin Cities |
| Stockton | California |
| Strong City | Kansas |
| Sumas | Northwest |
| Sweet Grass | Montana |
| Thayer North | Heartland |
| Thayer South | Heartland |
| Thomas Hill | Chicago |
| Topeka | Kansas |
| Twin Peaks | Kansas |
| Valier | Montana |
| Valley | Powder River |
| Venus | Red River |
| Warwick | Twin Cities |
| Watertown | Twin Cities |
| Wayzata | Twin Cities |
| Westhope | Twin Cities |
| Wichita Falls | Red River |
| Wymore | Powder River |
| Yakima Valley | Northwest |
| Yates City | Chicago |
| Zap Line | Twin Cities |

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# Reference Information

**Speed Tables**

| SPEED TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour |
| Min. | Sec. | | Min. | Sec. | | Min. | Sec. | |
| - | 36 | 100 | - | 58 | 62.1 | 1 | 40 | 36.0 |
| - | 37 | 97.3 | - | 59 | 61.0 | 1 | 42 | 35.3 |
| - | 38 | 94.7 | 1 | - | 60.0 | 1 | 44 | 34.6 |
| - | 39 | 92.3 | 1 | 02 | 58.0 | 1 | 46 | 34.0 |
| - | 40 | 90.0 | 1 | 04 | 56.2 | 1 | 48 | 33.3 |
| - | 41 | 87.8 | 1 | 06 | 54.5 | 1 | 50 | 32.7 |
| - | 42 | 85.7 | 1 | 08 | 52.9 | 1 | 52 | 32.1 |
| - | 43 | 83.7 | 1 | 10 | 51.4 | 1 | 54 | 31.6 |
| - | 44 | 81.8 | 1 | 12 | 50.0 | 1 | 56 | 31.0 |
| - | 45 | 80.0 | 1 | 14 | 48.6 | 1 | 58 | 30.5 |
| - | 46 | 78.3 | 1 | 16 | 47.4 | 2 | - | 30.0 |
| - | 47 | 76.6 | 1 | 18 | 46.1 | 2 | 05 | 28.8 |
| - | 48 | 75.0 | 1 | 20 | 45.0 | 2 | 10 | 27.7 |
| - | 49 | 73.5 | 1 | 22 | 43.9 | 2 | 15 | 26.7 |
| - | 50 | 72.0 | 1 | 24 | 42.9 | 2 | 30 | 24.0 |
| - | 51 | 70.6 | 1 | 26 | 41.9 | 2 | 45 | 21.8 |
| - | 52 | 69.2 | 1 | 28 | 40.9 | 3 | - | 20.0 |
| - | 53 | 67.9 | 1 | 30 | 40.0 | 3 | 30 | 17.1 |
| - | 54 | 66.6 | 1 | 32 | 39.1 | 4 | - | 15.0 |
| - | 55 | 65.5 | 1 | 34 | 38.3 | 5 | - | 12.0 |
| - | 56 | 64.2 | 1 | 36 | 37.5 | 6 | - | 10.0 |
| - | 57 | 63.2 | 1 | 38 | 36.8 | 12 | - | 5.0 |

| FEET | TENTHS OF A MILE |
|---|---|
| 528 | .1 |
| 1,056 | .2 |
| 1,584 | .3 |
| 2,112 | .4 |
| 2,640 | .5 |
| 3,168 | .6 |
| 3,696 | .7 |
| 4,224 | .8 |
| 4,752 | .9 |

## TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

To assist in determinig where to start sounding the whistle as described in Whistle Signal 7, use the following:
At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

| Train Speed | Delay to Sound Whistle |
|---|---|
| 40 MPH | 3 seconds |
| 35 MPH | 6 seconds |
| 30 MPH | 10 seconds |
| 25 MPH | 16 seconds |
| 20 MPH | 25 seconds |
| 15 MPH | 40 seconds |
| 10 MPH | 1 minute 10 seconds |

## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

This version contains the following updated pages:
**February 1, 2018:** 5-17, 5-18.
**August 1, 2018:** 5-5, 5-6, 5-7, 6-20, 6-21.
**December 1, 2018:** 6-4.
**January 1, 2019:** 6-22.
**December 1, 2019:** 8-4.
**August 4, 2021:** 1-6, GL-1, GL-2, GL-3, GL-4.
**October 1, 2021:** i-2, 1-5, 6-5, 6-8.
**March 1, 2022:** Title page, i-3, 6-1, 6-3, 6-6, 6-23, 6-27, 6-28, 6-29, 6-30, 11-1, 11-2, 11-3.

BNSF RAILWAY

# Maintenance of Way Operating Rules

In Effect at 0001
Central, Mountain and Pacific
Continental Time

**January 1, 2018**
(Including updates through
March 1, 2022)

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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# 1.0 General Responsibilities

## 1.1 Safety

Safety is the most important element in performing duties. Obeying the rules is essential to job safety and continued employment.

**Empowerment**

All employees are empowered and required to refuse to violate any rule within these rules. They must inform the employee in charge if they believe that a rule will be violated. This must be done before the work begins.

**Job Safety Briefing**

Conduct a job safety briefing with individuals involved:

- Before beginning work
- Before performing new tasks
- When working conditions change

The job safety briefing must include the type of authority or protection in effect.

### 1.1.1 Maintaining a Safe Course

In case of doubt or uncertainty, take the safe course.

### 1.1.2 Alert and Attentive

Employees must be careful to prevent injuring themselves or others. They must be alert and attentive when performing their duties and plan their work to avoid injury.

### 1.1.3 Accidents, Injuries, and Defects

Report by the first means of communication any accidents, personal injuries, defects in tracks, bridges, or signals, or any unusual condition that may affect the safe and efficient operation of the railroad. Where required, furnish a written report promptly after reporting the incident.

The employee on whom the responsibility most naturally falls must assume authority until the proper manager arrives.

When an accident occurs at a road crossing, do not cut trees, weeds or make any changes to the scene until representatives from the Claims Department have investigated.

### 1.1.4 Condition of Equipment and Tools

Check the condition of equipment and tools before using them to perform duties. Do not use defective equipment or tools until safe to do so. Report any defects to the proper authority.

### 1.1.5 Inspection After Derailment

After re-railing equipment, check the condition of the track to ensure it is safe for the equipment to proceed.

## 1.2 Personal Injuries and Accidents

### 1.2.1 Care For Injured

When passengers or employees are injured, do everything reasonable to care for them.

### 1.2.2 Witnesses

If equipment is involved in personal injury, loss of life, or damage to property, the employee in charge must immediately secure the names, addresses, and occupations of all persons involved, including all persons at the scene when the accident occurred and those that arrived soon after. The employee in charge must secure the names regardless of whether these persons admit knowing anything about the accident.

The employee in charge must also obtain the license numbers of nearby automobiles. When necessary, other employees can assist in obtaining this information, which must be included in reports covering the incident.

Where signaling devices are provided or a flagman/flagger is on duty, the employee in charge and assisting employees must try to determine who, among the witnesses, can testify whether the signaling devices were functioning properly or if the flagman/flagger was performing duties properly.

When possible, obtain the names of witnesses who can testify about the bell and whistle signals.

### 1.2.3 Equipment Inspection

If an accident results in personal injury or death, all tools, machinery, and other equipment involved, including the accident site, must be inspected promptly by the foreman, another person in charge of the work, or other competent inspectors. The inspector must promptly forward to his manager a report of the inspection. The report must include the condition of the equipment and the names of those making the inspection.

The equipment inspected must be marked for identification and placed in custody of the responsible manager or employee until the claims department is contacted and determines disposition.

### 1.2.4 Mechanical Inspection

When engines, cars, or other equipment are involved in an accident that results in personal injury or death, the equipment must be inspected before it leaves the accident site.

A mechanical department employee must further inspect the equipment at the first terminal. This employee must promptly report inspection results to the proper manager.

### 1.2.5 Reporting

All cases of personal injury, while on duty or on company property, must be immediately reported to the proper manager and the prescribed form completed.

A personal injury that occurs while off duty that will in any way affect employee performance of duties must be reported to the proper manager as soon as possible. The injured employee must also complete the prescribed written form before returning to service.

If an employee receives a medical diagnosis of occupational illness, the employee must report it immediately to the proper manager.

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### 1.2.6 Statements

Except when authorized by the proper manager:

- Information concerning accidents or personal injuries that occur to persons other than employees may be given only to an authorized representative of the railroad or an officer of the law.
- Information about the facts concerning the injury or death of an employee may be given only to the injured employee, an immediate relative of the injured or deceased employee, an authorized representative of the railroad, or an officer of the law.
- Information in the files or in other privileged or confidential reports of the railroad concerning accidents or personal injuries may be given only to an authorized representative of the railroad.

### 1.2.7 Furnishing Information

Employees must not withhold information, or fail to give all the facts to those authorized to receive information regarding unusual events, accidents, personal injuries, or rule violations.

## 1.3 Rules

### 1.3.1 Rules, Regulations and Instructions

Employees must be familiar with and comply with the following rules, regulations and instructions.

**Maintenance of Way Operating Rules**
Employees governed by these rules must have a current copy they can refer to while on duty. Should the current copy of these rules become unavailable for reference while on duty by an individual roadway worker who is not part of a work group, that employee may contact a supervisor to access the required information.

**Timetable/Special Instructions**
Employees whose duties are affected by the timetable/special instructions must have a current copy they can refer to while on duty.

**Safety Rules**
Employees must have a copy of all applicable safety rules issued in a separate book.

**Hazardous Materials**
Employees who handle hazardous materials must have a copy of the instructions or regulations for handling these materials.

**Issued, Cancelled or Modified**
Rules, regulations and instructions may be issued, cancelled, or modified by track bulletin, general order, or special instructions.

**Maintaining Current Copies**
Employees must have a current copy of general orders amending rules and special instructions, and a copy of general orders amending timetables that apply to the territory they will work on. Updated pages including amendments may be used in place of general orders. These documents may be stored and referenced in printed form or on an electronic device.

**Explanation**
Employees must ask their supervisor for an explanation of any rule, regulation, or instruction they are unsure of.

**Classes**
Employees must attend required classes. They must pass the required examinations.

### 1.3.2 General Orders

General orders:

- Are numbered consecutively.
- Are issued and cancelled by the designated manager.
- Contain only information and instructions related to rules or operating practices.
- Replace any rule, special instruction, or regulation that conflicts with the general order.

Before beginning each day's work employees whose duties require must review general orders that apply to the territory they will work on.

### 1.3.3 Circulars, Instructions and Notices

Circulars, instructions, notices, and other information are issued and cancelled by the designated manager. Before beginning each day's work employees whose duties require must review those that apply to the territory they will work on.

## 1.4 Carrying Out Rules and Reporting Violations

Employees must cooperate and assist in carrying out the rules and instructions. They must promptly report any violations to the proper supervisor. They must also report any condition or practice that may threaten the safety of trains, passengers, or employees, and any misconduct or negligence that may affect the interest of the railroad.

## 1.5 Drugs and Alcohol

The use or possession of alcoholic beverages while on duty or on company property is prohibited. Employees must not have any measurable alcohol in their breath or in their bodily fluids when reporting for duty, while on duty, or while on company property.

The use or possession of intoxicants, over-the-counter or prescription drugs, narcotics, controlled substances, or medication that may adversely affect safe performance is prohibited while on duty or on company property, except medication that is permitted by a medical practitioner and used as prescribed. Employees must not have any prohibited substances in their bodily fluids when reporting for duty, while on duty, or while on company property.

## 1.6 Conduct

Employees must not be:

1. Careless of the safety of themselves or others
2. Negligent
3. Insubordinate
4. Dishonest
5. Immoral
6. Quarrelsome

   or

7. Discourteous

Any act of hostility, misconduct or willful disregard or negligence affecting the interest of the company or its employees is cause for dismissal and must be reported. Indifference to duty or to the performance of duty will not be tolerated.

### 1.6.2 Notification of Felony Conviction

The conduct of any employee leading to conviction of any felony is prohibited. Any employee convicted of a felony must notify the proper authority of that fact within 48 hours after the employee receives notice of the conviction.

## 1.7 Altercations

Employees must not enter into altercations with each other, play practical jokes, or wrestle while on duty or on railroad property.

## 1.8 Appearance

Employees reporting for duty must be clean and neat. They must wear the prescribed uniform when required.

## 1.9 Respect of Railroad Company

Employees must behave in such a way that the railroad will not be criticized for their actions.

## 1.10 Games, Reading or Other Media

While on duty, do not:

- Play games or read magazines, newspapers or other literature not related to duties except when located in a predetermined place of safety during break periods and not performing duties.
- Use electronic devices other than as provided for in MWSR.

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# 1.11 Sleeping

Employees must not sleep while on duty, except as outlined under Rule 1.11.1 (Napping). Employees reclined with their eyes closed will be in violation of this rule.

## 1.11.1 Napping

Napping is permitted under the following conditions:

- During meal period.

  or

- When employee is working outside their normal working hours or when they have worked outside their normal working hours in the last 24 hours.

The employee in charge must approve all naps. Naps may be approved when work group is waiting for authority, waiting for other work groups, etc.

**EXCEPTION:** Lone workers must enter the word "Nap" and the time the nap was initiated on the line captioned "time form completed" of the Statement of On-Track Safety.

Before napping the employee must take the necessary precautions to protect themselves and railroad property. The nap period must not exceed 45 minutes. The period is not limited to the time sleeping but includes the advance time needed to fall asleep. The normal requirements of the MWOR, timetable special instructions, MW Safety Rules, and other operating instructions are suspended for the employee taking the nap. All employees are encouraged to perform stretches before returning to work after taking a nap.

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## 1.12 Weapons

While on duty or on railroad property, employees must not have firearms or other deadly weapons, including knives with a blade longer than 3 inches. However, railroad police are authorized to possess firearms in the course of their work.

## 1.13 Reporting and Complying with Instructions

Employees will report to and comply with instructions from supervisors who have the proper jurisdiction. Employees will comply with instructions issued by managers of various departments when the instructions apply to their duties.

## 1.14 Employee Jurisdiction

Employees are under the jurisdiction of the supervisors of the railroad they are operating on.

When operating on another railroad, unless otherwise instructed, employees will be governed by:

- Safety rules and hazardous materials instructions of the railroad they are employed by.
- The operating rules, timetable and special instructions of the railroad they are operating on.

## 1.15 Duty—Reporting or Absence

Employees must report for duty at the designated time and place with the necessary equipment to perform their duties. They must spend their time on duty working only for the railroad. Employees must not leave their assignment, exchange duties, or allow others to fill their assignment without proper authority. Continued failure by employees to protect their employment will be cause for dismissal.

## 1.16 Subject to Call

Employees subject to call must indicate where they can be reached and must not be absent from their calling place without notifying those required to call them.

## 1.17 Hours of Service Law

Employees must be familiar and comply with the requirements of the federal hours of service law. Employees are expected to use off-duty time so they are prepared for work.

If an employee is called to report for duty before legal off-duty time has expired, before accepting the call to work, the employee must notify the individual making the call that off-duty time has not expired.

**A. Notification**

When communication is available, employees must notify the train dispatcher or another authority of the time the law requires them to be off duty. Employees must provide notification early enough that they may be relieved, or transportation provided, before they exceed the hours of service.

**B. Exceeding the Law**

Employees must not exceed the hours of service law without proper authority.

## 1.18 Unauthorized Employment

Employees must not engage in another business or occupation that would create a conflict of interest with their employment on the railroad or would interfere with their availability for service or the proper performance of their duties.

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## 1.19 Care of Property

Employees are responsible for properly using and caring for railroad property. Employees must return the property when the proper authority requests them to do so. Employees must not use railroad property for their personal use.

## 1.20 Alert to Train Movement

Employees must expect the movement of trains, engines, cars, or other movable equipment at any time, on any track, and in either direction.

Employees must not stand on the track in front of an approaching engine, car, or other moving equipment.

Employees must be aware of location of structures or obstructions where clearances are close.

## 1.21 Occupying Roof

Employees whose duties require them to occupy the roof of a car or engine must do so only with proper authority and when the equipment is standing.

## 1.22 Unauthorized Persons on Equipment

Do not permit unauthorized persons on equipment.

## 1.23 Altering Equipment

Without proper authority, employees must not alter, nullify, change the design of, or in any manner restrict or interfere with the normal function of any device or equipment on engines, cars, or other railroad property, except in the case of an emergency. Employees must report to the proper supervisor changes made in an emergency.

## 1.24 Clean Property

Railroad property must be kept in a clean, orderly, and safe condition. Railroad buildings, facilities, or equipment must not be damaged or defaced. Only information authorized by the proper manager or required by law may be posted on railroad property.

## 1.25 Credit or Property

Unless specifically authorized, employees must not use the railroad's credit and must not receive or pay out money on the railroad account. Employees must not sell or in any way get rid of railroad property without proper authority. Employees must care for all articles of value found on railroad property and promptly report the articles to the proper authority.

## 1.26 Gratuities

Employees must not discriminate among railroad customers. Employees must not accept gifts or rewards from customers, suppliers, or contractors of the railroad unless authorized by the proper manager.

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## 1.27 Divulging Information

Employees who make up, handle, or care for any of the following must not allow an unauthorized person to access them or disclose any information contained in them:

- Correspondence
- Reports
- Books
- Bills of Lading
- Waybills
- Tickets
- Statistics

## 1.28 Fire

Employees must take every precaution to prevent loss and damage by fire.

Employees must report promptly to the train dispatcher any fires seen on or near the right of way, unless the fires are being controlled. If there is danger of the fire spreading to a bridge or other structure, crew members must stop their train and help extinguish the fire.

Cause of fire, if known, must be promptly reported.

## 1.33 Loading Freight Cars

Freight cars must be loaded safely.

If width or height approaches clearance restrictions, movement must be cleared with the proper authority.

## 1.34 Flat Spots

If a wheel on a piece of equipment has a flat spot more than 2 1/2 inches long, or if the wheel has adjoining flat spots that are each at least 2 inches long, the equipment must not be moved faster than 10 MPH. Such equipment must be set out at the first available point.

## 1.35 Dump Doors

Be sure dump doors on cars are closed after a load is dumped. If car must be moved short distances with the dump doors open, make sure the doors and chains will clear tracks and crossings.

## 1.44 Duties of Train Dispatchers

Train dispatchers supervise train movement and any employees connected with that movement.

## 1.45 Duties of Bridge Tenders and Bridge Control Operators

Bridge tenders and bridge control operators must receive instruction on each movable bridge they are assigned to operate and/or inspect for safe train and on-track equipment movement.

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## 1.48 Time

While on duty, all MW EICs and all lone workers must have a watch. Other employees must have access to a watch or clock.

The watch or clock must:

- Be in good working condition and reliable.
- Display hours, minutes, and seconds.
- Not vary from the correct time by more than 30 seconds.
- Be compared with the time source designated in the special instructions.

***BNSF Supplemental Information***

*Dial 8-998-8463, 8-WWV-TIME, or 8-435-6000 to obtain coordinated universal time signal.*

## 1.49 Encroachment

Encroachment on railroad property, including building occupancy or the unauthorized dumping or storage of material having an adverse environmental impact, is prohibited.

When observing outside parties performing work that may encroach on the right-of-way, report the location and the nature of work to the proper authority.

Livestock found on railroad property must be driven away or handled as directed.

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# 2.0 Railroad Radio and Communication Rules

## 2.1 Transmitting

Any employee operating a radio must do the following:

- Before transmitting, listen long enough to make sure the channel is not being used.
- Give the required identification.
- Not proceed with further transmission until acknowledgment is received.

## 2.2 Required Identification

Employees transmitting or acknowledging a radio communication must begin with the required identification. The identification must include the following in this order:

- For base or wayside stations:
  - Name or initials of the railroad.
  - Name and location or other unique designation.
- For mobile units:
  - Name or initials of the railroad.
  - Train name (number), engine number, or words that identify the precise mobile unit.

If communication continues without interruption, repeat the identification every 15 minutes.

**Short Identification**

After making a positive identification for switching, classification, and similar operations within a yard, fixed and mobile units may use a short identification after the initial transmission and acknowledgment.

## 2.3 Repetition

An employee who receives a transmission must repeat it to the person transmitting the message, except when the communication:

- Concerns yard switching operations.
- Is a recorded message from an automatic alarm device.

  or

- Is general and does not contain any information, instruction, or advice that could affect the safety of a railroad operation.

## 2.4 Ending Transmission

Employees using a radio for transmissions must state to the employee receiving the transmission the following as it applies to indicate that the communication has ended or is completed:

"OVER"—when a response is expected.

or

"OUT"—preceded by required identification—when no response is expected.

However, these requirements do not apply to yard switching operation.

## 2.6 Communication Not Understood or Incomplete

An employee who does not understand a radio communication or who receives a communication that is incomplete must not act upon the communication and must treat it as if it was not sent.

Exception: An employee who receives information that may affect the safety of employees or the public or cause damage to property must take the safe course. When necessary, stop movement until the communication is understood.

## 2.7 Monitoring Radio Transmissions

Radios in attended base stations or mobile units must be turned on to the appropriate channel with the volume loud enough to receive communications. Employees attending base stations or mobile units must acknowledge all transmissions directed to the station or unit.

## 2.8 Acknowledgment

An employee receiving a radio call must acknowledge the call immediately unless doing so would interfere with safety.

## 2.9 Misuse of Radio Communications

Employees must not use radio communication to avoid complying with any rule.

## 2.10 Emergency Calls

Emergency calls will begin with the words “Emergency, Emergency, Emergency.” These calls will be used to cover initial reports of hazardous conditions which could result in death or injury, damage to property or serious disruption of railroad operations such as:

- Derailments
- Collisions
- Storms
- Washouts
- Fires
- Track obstructions

  or

- Emergency brake applications

In addition, emergency calls must be made for the following:

- Overrunning limits of authority

  or

- Overrunning Stop indications.

Emergency calls must contain as much complete information on the incident as possible.

All employees must give absolute priority to an emergency communication. Unless they are answering or aiding the emergency call, employees must not transmit until they are certain no interference will result.

## 2.11 Prohibited Transmissions

Employees must not transmit a false emergency or an unnecessary or unidentified communication. Employees must not use indecent language over the radio. Employees must not reveal the existence, contents, or meaning of any communication (except emergency communications) to persons other than those for whom it is intended, or those whose duties may require knowing about it.

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## 2.12 Fixed Signal Information

Employees must not use the radio to give information to a train or engine crew about the name, position, aspect, or indication displayed by a fixed signal, unless the information is given between members of the same crew or the information is needed to warn of an emergency.

## 2.14 Transmission of Mandatory Directives

When verbally transmitted, a mandatory directive must be transmitted according to applicable operating rules and the following:

- The train dispatcher must state that a mandatory directive will be transmitted.
- The employee must inform the train dispatcher when ready to copy, stating the employee's name, occupation and location. An employee operating the controls of moving equipment may not copy a mandatory directive. In addition, a mandatory directive must not be transmitted to moving equipment if the operator of the equipment feels that the transmission could adversely affect safe operation.
- The employee receiving a mandatory directive must copy it in writing using the format outlined in the operating rules.

A mandatory directive may not be released by an employee at the controls of moving equipment.

### 2.14.1 Verbally Transmitting and Repeating Mandatory Directives

When transmitting and repeating mandatory directives:

- State and spell single digit numbers by number and digit.
- State multiple digit numbers by number and digit.
- Identify decimal points as "point", "dot", or "decimal".
- State and spell directions.

Apply the following when verbally transmitting and repeating a mandatory directive identified by numbers separated with a hyphen:

- State the first number, then state or spell each digit separately for that number.
- State the hyphen as "dash".
- State the second number, then state or spell each digit separately for that number.

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5".

Employees repeating the initial transmission of the mandatory directive must repeat the number in this same format.

When authorities are repeated precisely as they are transmitted, the Control Operator/Train Dispatcher is able to follow the words when checking the repeat for accuracy. When authorities are not repeated properly, it is more difficult for the Control Operator/Train Dispatcher to follow the repeat process.

Employees are expected to repeat authority precisely as it is recorded on the authority form. All words which are on the form or shown in the examples must be repeated in the proper order and without adding or deleting words.

Employees will be given three chances to repeat an authority properly. If unable to repeat properly after three attempts, the Control Operator / Train Dispatcher will stop the authority and the employee will not be given additional authority until a supervisor has been contacted.

### 2.14.2 Before Reporting Clear or Releasing a Portion of Authority Limits

Before a field employee reports clear or releases a portion of authority limits, and the Train Dispatcher/Control Operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the Train Dispatcher/Control Operator.
- The Train Dispatcher/Control Operator will have the required form or computer screen displayed for data entry and confirmation.
- The employee will inform the Train Dispatcher/Control Operator that all employees and multiple work groups using the authority are clear of tracks.
- The Train Dispatcher/Control Operator and field employee must carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct.

## 2.15 Phonetic Alphabet

If necessary, a phonetic alphabet (Alpha, Bravo, Charlie, etc.) will be used to pronounce clearly any letter used as an initial, except initial letters of railroads.

## 2.16 Assigned Frequencies

The railroad must authorize any radio transmitters used in railroad service. Radio transmitters must operate on frequencies the Federal Communications Commission assigns the railroad. Employees are prohibited from using other transmitters or railroad frequencies not assigned to that particular territory.

## 2.17 Radio Testing

Test radios to be used as soon as possible before the beginning of a work assignment.

The radio test must include an exchange of voice transmissions with another radio. The test must confirm the quality of the radio's transmission.

## 2.18 Malfunctioning Radio

Malfunctioning radios must not be used. As soon as possible, notify the train dispatcher or other affected employees that the radio is not working.

## 2.19 Blasting Operations

Employees must not operate radio transmitters located less than 250 feet from blasting operations.

## 2.20 Internal Adjustments

Employees are prohibited from making internal adjustments to a railroad radio unless they are specifically authorized by the FCC or hold a current Certified Technician's Certificate. Employees authorized to make adjustments must carry their FCC operator license, Certified Technician's Certificate, or verification card while on duty.

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## 2.21 Radio Equipment Requirements

At least one unit of on-track equipment in each work group using the same authority travelling without locomotive assistance between work locations must have a working radio. The operators of each additional unit of on-track equipment shall have communications capability with each other, which may be the use of hand or other signals.

Each work group shall have intra-group communications capability upon arriving at the work site, which may be the use of hand or other signals.

Each employee providing on-track safety for a work group, and each lone worker, will maintain immediate access to a working radio capable of monitoring transmissions from train movements in the vicinity.

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# 3.0 Not Used

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# 4.0 Timetables

## 4.1 New Timetable

The moment a new timetable goes into effect, it will replace the previous one.

### 4.1.1 Notice of New Timetable

At least 24 hours before a new timetable goes into effect, notification will be made by general order. A track bulletin will also be issued at least 24 hours before the new timetable goes into effect and continue for 6 days after the effective date.

## 4.2 Special Instructions

Special instructions will replace any rule or regulation with which they conflict.

## 4.3 Timetable Characters

Timetable characters are letters and symbols located in the timetable station table. These letters and symbols indicate the special conditions at specific locations (such as yard limits and manual interlockings). A timetable station table may also include information on the method of operation (such as TWC, ABS or CTC). The following timetable characters are in effect:

| | |
|---|---|
| A | Automatic Interlocking |
| B | General orders, notices, and circulars |
| C | Radio communication |
| g | Gate, normal position against conflicting route |
| G | Gate, normal position against this subdivision |
| J | Junction |
| M | Manual interlocking |
| P | Telephone |
| R | Restricted Limits |
| S | Railroad crossing protected by permanent stop sign |
| T | Turning facility |
| U | Railroad crossing not protected by signals or gates |
| X | Crossover |
| X(2) | Multiple crossovers |
| Y | Yard Limits |

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# 5.0 Signals and Their Use

## 5.1 Signal Equipment

Employees who give or display signals must have the proper appliances. Appliances must be in good condition and ready to use.

## 5.2 Receiving and Giving Signals

### 5.2.1 Looking for Signals

To recognize and follow signals correctly, employees must:

- Always be on the lookout for signals.
- Comply with the intent of the signal.
- Not act on any signal that they do not understand or that may be intended for others.

### 5.2.2 Signals Used by Employees

To give clear signals during the day and at night, employees must:

**A. During the Day**

1. Use the correct color of flags or lights.
2. Use day signals from sunrise to sunset.

**B. At Night**

1. Use the correct color of flags or lights.
2. Use night signals from sunset to sunrise or when day signals cannot be seen clearly.

Flags may be made from cloth, metal, or other suitable material.

### 5.2.3 Flagging Kits

All hi-rail vehicles, on-track equipment that works independently, and the lead and trailing pieces of on-track equipment in a gang consist must carry a complete railroad flagging kit.

Vehicle operators whose duties may require flagging must carry a complete flagging kit in the vehicle.

The employee in charge and the machine operator are responsible for ensuring that the kit is complete at the beginning of each shift.

A complete flagging kit consists of the following:

12 - Red Fusees
2 - Red Flags
2 - White Lights

# 5.3 Hand and Radio Signals

## 5.3.1 Hand Signals

The following diagram illustrates the hand signals for a train or engine to stop, proceed, or back up.

| Description of Signal | Indication | Movement |
|---|---|---|
| 1. Swung at a right angle to the track | STOP |  |
| 2. Raised and lowered vertically | PROCEED |  |
| 3. Swung slowly in a circle at a right angle to the track | BACK UP |  |

*[Diagram A.]*

Employees may use other hand signals only if all crew members understand the signals. When employees are not giving hand signals, they must not make any gestures or movements that may resemble a hand signal.

## 5.3.2 Giving Signals

Employees who give signals must:

- Make sure signals can be plainly seen.
- Give signals clearly so they can be understood.
- Give signals on the engineer's or operator's side of the track when practical.

## 5.3.3 Signal Disappearance

If a person disappears who is giving the signal to back or shove, or the light being used disappears, the backing or shoving movement must stop.

## 5.3.4 Signal to Stop

Any object waved violently by any person on or near the track is a signal to stop.

## 5.3.5 Stop Signal by Flagman

When a flagman stops a train, engine or on-track equipment, the flagman must thoroughly explain to the engineer or operator why they were stopped.

## 5.3.6 Radio and Voice Communication

Employees may use radio or other means of voice communication to give information when using hand signals is not practical. When using radio or other voice communications, employees must:

- Know which moves will be made.
- Understand the operators of equipment will not accept any hand signals, unless they are Stop signals.

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



### 5.3.7 Radio Response

When radio communication is used to make movements, employees must provide response to specific instructions given for each movement. In addition:

- Radio communications for backing and shoving movements must specify the direction and distance and must be acknowledged when distance specified is more than 300 feet.

Movement must stop within half of the distance specified unless additional instructions are received.

## 5.4 Flags for Temporary Track Conditions

### 5.4.1 Temporary Restrictions

Track bulletins, track warrants, or general orders may restrict or stop train movements because of track conditions, structures or men and equipment.

Yellow flags are used for temporary speed restrictions. If yellow flags cannot be immediately displayed, that information will be included in the track bulletin, track warrant or general order.

Yellow-red flags are used when a train or on-track equipment may be required to stop.

When a track condition requires a restriction, the condition must be protected using MWOR 6.19 Flag Protection until a track bulletin or track warrant is issued.

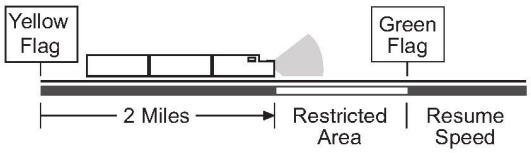
When a condition exists that requires a train to be restricted, advise the train dispatcher of the location of the restriction by using mileposts and tenths of a mile from mileposts.

Temporary speed restrictions will only be given to trains by the train dispatcher, except MW employees may give temporary speed restrictions to trains and on-track equipment as outlined in Rule 5.4.7 (Display of Red Flag) or Rule 15.2 (Protection by Track Bulletin Form B).

### 5.4.2 Display of Yellow Flag

**A. Restriction is In Effect**

**Two Miles Ahead of Restricted Area.** Yellow flags warn trains to restrict movement because of track conditions or structures. To make sure train movement is restricted at the right location, employees must display a yellow flag 2 miles before the restricted area.




*[Diagram A.]*

**Less than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, foreign line junction, or another area or if restriction is on a siding, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**Once the Train Reaches the Restricted Area.** The speed specified by track warrant, track bulletin, general order or radio speed restriction must not be exceeded until the rear of the train clears the restricted area.

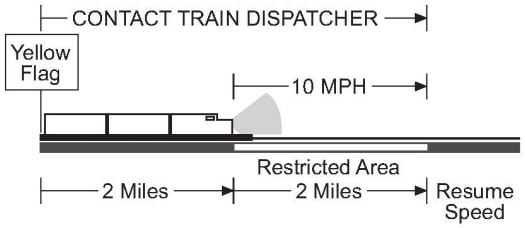
**B. Restriction is Not In Effect**

When a yellow flag is displayed and no restriction is in effect as specified by a track bulletin, track warrant, or general order, once the train is 2 miles beyond the yellow flag, crew members must:

1. Continue moving the train but at a speed not exceeding 10 MPH.
2. Resume speed only after the rear of the train has:
   a. Passed a green flag.

      or

   b. Traveled 4 miles beyond the yellow flag and the train dispatcher has verified that no track bulletin or track warrant is in effect specifying a temporary speed restriction at that location.




*[Diagram C.]*

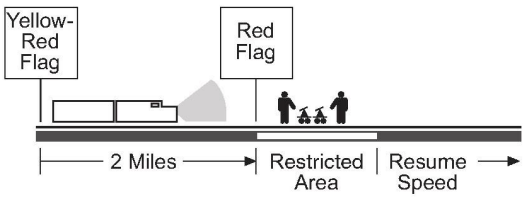
## 5.4.3 Display of Yellow-Red Flag

Employees may display yellow-red flags from one hour before to one hour after a track bulletin Form B is in effect. During that time the employee in charge may provide a train instructions to proceed without restriction, specifying the Track Bulletin number (specifying line number when necessary) and advising no red flag is displayed.

The display of yellow-red flags as described does not extend the authorized working time beyond the times listed on the track bulletin Form B.

**A. Restriction is In Effect**

**Two Miles Ahead of Restricted Area.** Yellow-red flags warn a train to be prepared to stop because of men and equipment. To make sure the train is prepared to stop at the right location, employees must display a yellow-red flag 2 miles before the restricted area.




*[Diagram A.]*

**Less Than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, foreign line junction, or another area, employees will display the yellow-red flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**B. Restriction is Not In Effect**

When a yellow-red flag is displayed and no restriction is in effect as specified by a track bulletin, track warrant, or general order, a crew member must attempt to contact the employee in charge of the yellow-red flag. Crew members must be prepared to stop short of a red flag 2 miles beyond the yellow-red flag. If a red flag is displayed, proceed as outlined in Rule 5.4.7 (Display of Red Flag). If no red flag is displayed and no instructions have been provided by the employee in charge of the yellow-red flag:

1. Move at restricted speed.
2. Increase speed only after:
   a. A crew member has received instructions from the employee in charge.

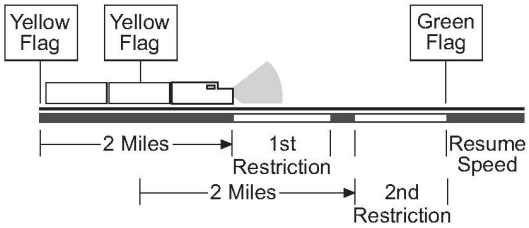
      or

   b. The leading wheels of movement are 4 miles beyond the yellow-red flag, and the train dispatcher has verified that no track bulletin or track warrant protecting men and equipment is in effect at that location.

## 5.4.5 Display of Green Flag

A green flag indicates the end of a speed restriction. If a series of locations requires reduced speeds, the green flags could overlap yellow flags. When this is the case, employees must:

- Place a yellow flag before each speed restriction.
- Place a green flag at the end of the last speed restriction.




*[Diagram A.]*

Before placing or removing green flags, an employee must communicate with the train dispatcher to determine the existence of other restrictions and necessary flag placement.

## 5.4.7 Display of Red Flag

A red flag is displayed where on-track equipment or trains must stop. When approaching a red flag, the train or on-track equipment must stop short of the red flag and not proceed unless the employee in charge gives instructions. If instructions to proceed are received before the train or on-track equipment stops, the train or on-track equipment may pass the red flag without stopping.

For a Track Bulletin Form B, red flags must be displayed as follows:

- At the milepost limits of the Track Bulletin Form B as viewed from a train approaching the limits.
- At Main Track Junctions within the limits of the Track Bulletin Form B.

See System Special Instructions track flagging examples.

If a track bulletin Form B is not in effect, instructions must include speed and distance. This speed must not be exceeded until the rear of the train has passed the specified distance from the red flag, unless otherwise instructed by the employee in charge.

**Displayed Between Rails.** When a red flag is displayed between the rails of a track, the train must stop and not proceed until the flag has been removed by an employee of the class that placed it.

**Types of Red Flags.** Use only the type of red flags specifically authorized by system standards for use in the protection of impassable track, speed restrictions, track bulletin Form Bs, working limits and for use by designated flagmen.

### 5.4.8 Flag Location

Flags must be displayed to the right of the track as viewed from an approaching train. In multiple main track territory or where sidings are adjacent to main tracks, they will be placed on the field side of outside tracks.

When flags are displayed beyond the first rail of an adjacent track, the flags will not apply to the track on which the train is moving.

Yellow Flags and Yellow-Red Flags will be displayed on all main tracks and sidings leading to the track affected.

When placing track flags, the least restrictive flag should be placed first. (Example: Yellow-red flag then red flag, or green flag then yellow flag.)

When removing track flags, the most restrictive flag should be removed first. (Example: Red flag then yellow-red flag, or yellow flag then green flag.)

Do not affix or display red flags on on-track equipment for the purpose of delineating working limits.

See System Special Instructions track flagging examples.

### 5.4.9 Approved Flags

For temporary track conditions, use only flags approved for use in the current edition of the BNSF Standard Plan Book to restrict or stop the movement of trains or on-track equipment (BNSF Standard Plan 3010 and 3090).

When using flags to restrict speed, prevent movement onto impassable track, or control the movement of trains and on-track equipment in connection with a track bulletin Form B, use only portable train control sign No. 10 shown in drawing No. 3010 of the BNSF Standard Plan Book.

When using flags to prevent the movement of trains and on-track equipment into working limits, except as required in connection with a track bulletin Form B, use either signs 92 and 93 in drawing No. 3090 of the BNSF Standard Plan Book or portable train control sign No. 10.

In addition to these items, on other than Main Tracks and controlled sidings, use sign 91 in drawing No. 3090 of the BNSF Standard Plan Book to establish working limits.

Flagmen will use the red signal flag (sign 92) in drawing No. 3090 of the BNSF Standard Plan Book to protect other employees or on-track equipment and to prevent the movement of trains and on-track equipment onto track where conditions necessitate restrictions.

## 5.5 Permanent Speed Signs

Permanent speed restriction signs will be placed in advance of permanent speed restrictions. Speeds will be shown in the timetable or on general order.

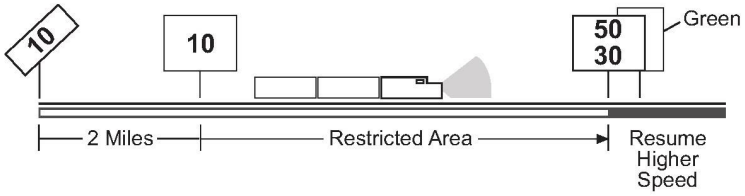
Reduced speed limits may be designated by advance warning sign (diagonally upward), reduce speed sign (rectangle) and Resume Speed sign (vertical).

The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect.

At the point where the reduced speed applies, a speed sign will repeat the permissible speed.

The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed. At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction.

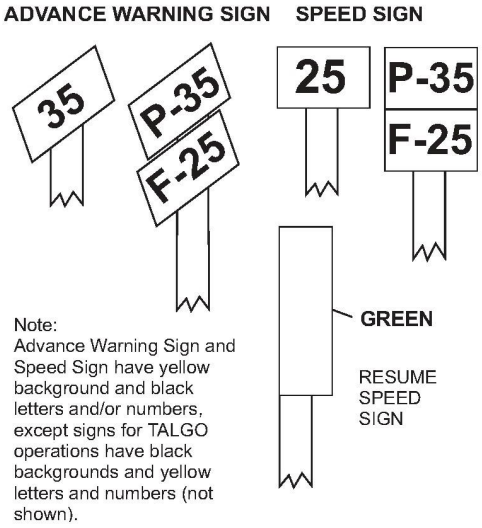
Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision. Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.




*[Diagram A.]*

## 5.5.1 Speed Limit Signs

These signs, as illustrated, apply to train and engine movements as follows:




*[Diagram A.]*

Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

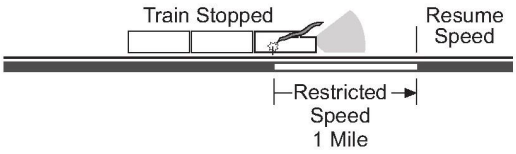
Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures not preceded by a letter apply to all trains. When two sets of numbers are shown, the greater number governs trains consisting entirely of passenger equipment. The lesser number governs all other trains.

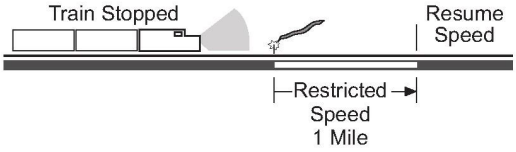
## 5.6 Unattended Fusee

If a train approaches an unattended fusee burning on or near its track, the train must stop consistent with good train handling.




*[Diagram A.]*

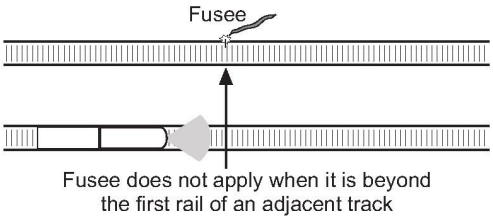
A train moving at restricted speed must stop before passing the fusee.




*[Diagram B.]*

After stopping, the train must proceed at restricted speed for 1 mile beyond the fusee.

If the unattended burning fusee is beyond the first rail of an adjacent track, the fusee does not apply to the track on which the train is moving.




*[Diagram C.]*

Do not place fusees where they may cause fires.

## 5.8 Bell, Whistle and Horn Signals

### 5.8.2 Sounding Locomotive Whistle

When weather conditions impair visibility, sound the whistle frequently.

When other employees are working in the immediate area, sound the required whistle signal before moving.

Sound whistle signal (8) and ring the bell when approaching roadway workers on or near the track, regardless of any whistle prohibition.

When on-track equipment is observed on adjacent track, sound whistle signal (8) approaching and passing this equipment.

The radio may be used in place of whistle signals, except signals (1), (7) and (8). See following chart.

The required whistle signals are illustrated by "o" for short sounds and "—" for longer sound:

| Sound | | Indication |
|---|---|---|
| [1] | Succession of Short Sounds | Use when persons or livestock are on the track at other than road crossings at grade. In addition, use to warn railroad employees when an emergency exists such as a derailment, When crews on other trains hear this signal, they must stop until it is safe to proceed. |
| [2] | — | When stopped: air brakes are applied, pressure equalized. |
| [3] | — — | Release brakes. Proceed. |
| [4] | o o | Acknowledgment of any signal not otherwise provided for. |
| [5] | o o o | When stopped: back up. Acknowledgment of hand signal to back up. |
| [6] | o o o o | Request for signal to be given or repeated if not understood. |
| [7] | — — o — | Approaching crossings at grade. |
| [8] | — o | Approaching men and equipment on or near the track, regardless of any whistle prohibitions.<br>After this initial warning, sound whistle signal (4) intermittently until the head end of train or on-track equipment has passed the men and equipment. |

### 5.8.3 Sounding On-Track Equipment Horn

At grade crossings operators of on-track equipment may sound whistle/horn at their discretion.

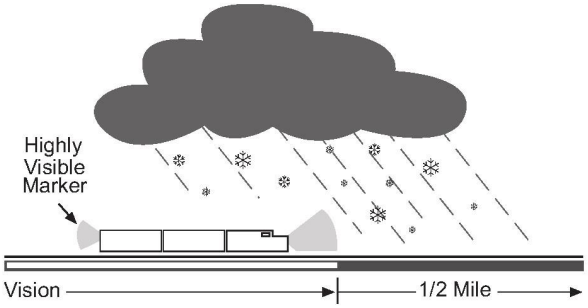
## 5.10 Markers

A marker of the prescribed type must be displayed on the trailing end of the rear car to indicate the rear of the train.

### 5.10.1 Highly Visible Markers

Display a highly visible marker at the rear of every train as follows:

- From 1 hour before sunset to 1 hour after sunrise.
- When weather conditions restrict visibility to less than 1/2 mile.




*[Diagram A.]*

A marker equipped with a functioning photoelectric cell will automatically illuminate at the appropriate time.

When an engine is operating without cars or is at the rear of the train, the trailing headlight illuminated on dim may be used as a marker.

### 5.10.2 Alternative Markers

Display a reflector, red flag, or light fixture at the rear of the train as the marker when any of the following conditions exists:

- A highly visible marker is not required.
- A defective car must be placed at the rear for movement to a repair point.
- The rear portion of the train is disabled and cannot be moved, and a highly visible marker cannot be displayed on the rear of the portion to be moved.

  or

- The highly visible marker becomes inoperative en route. If this occurs, notify the train dispatcher and move the train to the next forward location where the highly visible marker can be repaired or replaced.

## 5.11 Engine Identifying Number

Trains will be identified by initials and engine number, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. When practical, use the leading unit.

Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines:

SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines:

CSXT, CSX and CSX Transportation.

## 5.12 Protection of Occupied Outfit Cars

This rule outlines the requirements for protecting occupied outfit cars. As used in this rule, the following definitions apply:

**Outfit Car.** Any on-track vehicle, including outfit, camp, or bunk car or modular home mounted on a flat car to house railroad employees. Such equipment is not considered an outfit car when placed in a wreck train.

**Effective Locking Device**. When used in relation to a manually operated switch or a derail, a lock that can be locked or unlocked only by the craft or group of workmen applying the lock.

**Rolling Equipment.** Engines, cars, and one or more engines coupled to one or more cars.

**Switch Providing Direct Access.** A switch that if used by rolling equipment could permit the rolling equipment to couple to the equipment being protected.

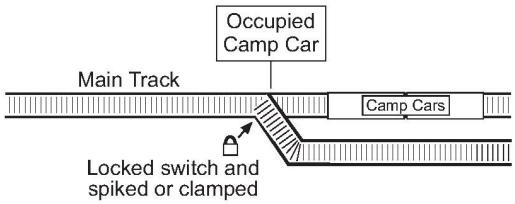
**Warning Signal.** A white sign that reads “OCCUPIED CAMP CAR” in black lettering. At night, an illuminated white light must also be used.

When occupied outfit cars are placed on a track, the employee in charge of the outfit car occupants (or a designated representative) must provide or request protection using one of the following methods:

### A. On a Main Track

One of these two methods or a combination of these methods must be provided:

1. Each manually operated switch that provides direct access to that portion of the Main Track where occupied outfit cars are located must be lined against movement to that track, secured with an effective locking device, and spiked or clamped. Warning signals must be displayed at or near each switch.




*[Diagram A.]*

2. If remote control switches provide direct access to the Main Track where occupied outfit cars are located, the control operator will line the switch against movement to that track and apply blocking devices to the control machine to prevent movement onto that track. The control operator must complete the above tasks before informing the employee requesting protection that protection is provided.

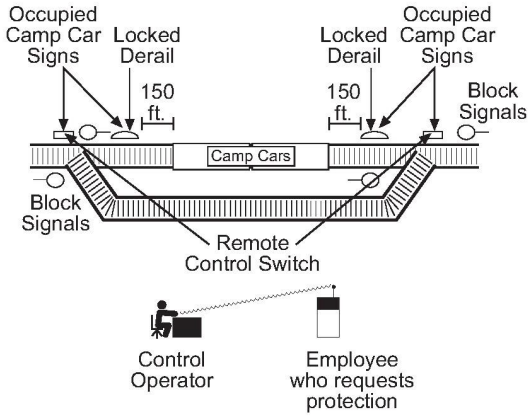
**Blocking devices must not be removed until the employee in charge of the outfit car occupants (or a designated representative) informs the control operator that protection is no longer required.**

   a. Warning signals must be displayed at or near each remote control switch.

   b. In addition, a derail capable of restricting access to the portion of Main Track where occupied outfit cars are located must be placed at least 150 feet from the end of the occupied outfit cars. The derail must be locked in derailing position with an effective locking device. Warning signals must be displayed at each derail.

   c. The control operator must maintain for 15 days a written record of each notification. The record must contain the following information:

      - Name and craft of employee requesting protection.
      - Identification of track protected.
      - Date and time employee in charge of outfit car occupants is notified that protection was provided.
      - Date, time, name, and craft of employee authorizing removal of protection.

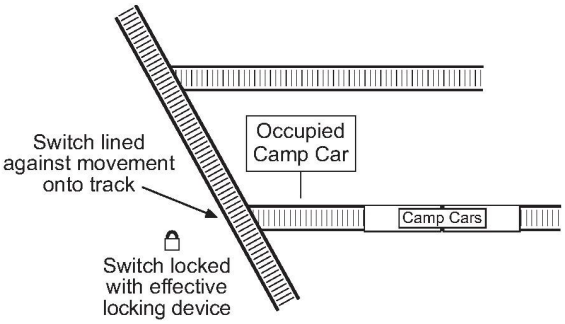



*[Diagram B.]*

**B. On Other Than a Main Track**

One of these three methods of protection or a combination of these methods must be provided:

1. Each manually operated switch that provides direct access to the track where occupied outfit cars are located must be lined against movement to that track and secured with an effective locking device. Warning signals must be displayed at or near the switch.

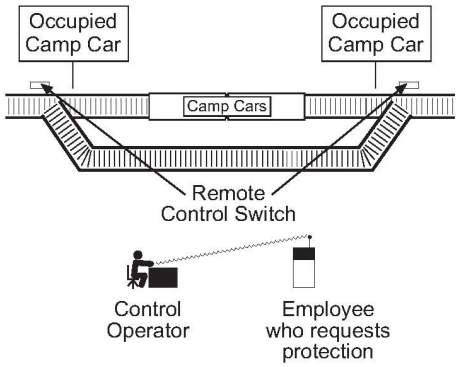



*[Diagram C.]*

2. If remote control switches provide direct access to the track where occupied outfit cars are located, the control operator will line the switch against movement to that track and apply blocking devices to the control machine to prevent movement onto that track. The control operator must complete the above tasks before informing the employee requesting protection that protection is provided.

**Blocking devices must not be removed until the employee in charge of the outfit car occupants (or a designated representative) informs the control operator that protection is no longer required.**

a. Warning signals must be displayed at or near each remote control switch.




*[Diagram D.]*

b. The control operator must maintain for 15 days a written record of each notification. The record must contain the following information:

- Name and craft of employee requesting protection
- Identification of track protected
- Date and time employee in charge of outfit car occupants is notified that protection was provided
- Date, time, name, and craft of employee authorizing removal of protection

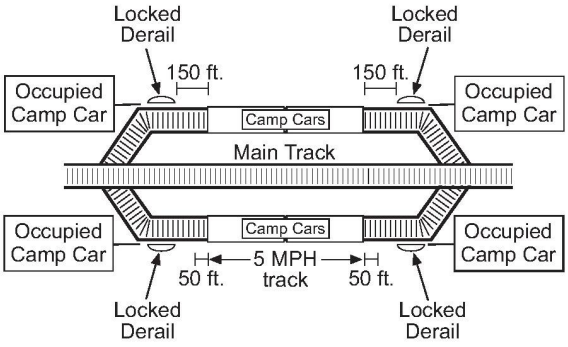
3. A derail capable of restricting access to that portion of the track where occupied outfit cars are located will fulfill the requirements of protection when the derail is:

   a. Positioned at least 150 feet from the end of the occupied outfit cars.

      or

   b. Positioned at least 50 feet from the end of the occupied outfit cars where the maximum speed on that track is 5 MPH.

   Warning signals must be displayed at each derail.




*[Diagram E.]*

**C. Warning Signals**

When a warning signal is displayed to protect occupied outfit cars:

1. Occupied outfit cars must not be coupled to or moved.
2. Rolling equipment must not pass the warning signal.
3. Rolling equipment must not be placed on the same track in a manner that would block or reduce the crew's view of the warning signal.

When outfit cars are occupied, hand brakes must be set on each outfit car and any car coupled to outfit cars. If necessary, wheels must be blocked.

## 5.13 Blue Signal Protection of Workmen

This rule outlines the requirements for protecting railroad workmen who are inspecting, testing, repairing, and servicing rolling equipment. In particular, because these tasks require the workmen to work on, under, or between rolling equipment, workmen are exposed to potential injury from moving equipment.

As used in this rule, the following definitions apply:

**Workmen.** Railroad employees assigned to inspect, test, repair, or service railroad rolling equipment or components, including brake systems. Train and yard crews are excluded, except when they perform the above work on rolling equipment not part of the train or yard movement they are handling or will handle.

- "Servicing" does not include supplying cabooses, engines, or passenger cars with items such as ice, drinking water, tools, sanitary supplies, stationery, or flagging equipment.
- "Testing" does not include an employee making visual observations while on or along side a caboose, engine, or passenger car. Also, testing does not include repositioning the activation switch or covering the photoelectric cell of the marker when the rear of the train is on the Main Track. The employee inspecting the marker must contact the employee controlling the engine to confirm that the train will remain secure against movement until the inspection is complete.

**Group of Workmen.** Two or more workmen of the same or different crafts who work as a unit under a common authority and communicate with each other while working.

**Rolling Equipment.** Engines, cars, and one or more engines coupled to one or more cars.

**Blue Signal.** During the day, a clearly distinguishable blue flag or light, and at night, a blue light. The blue light may be steady or flashing.

The blue signal does not need to be lighted when it is attached to the operating controls of an engine and the inside of the engine cab area is lighted enough to make the blue signal clearly distinguishable.

**Effective Locking Device.** When used in relation to a manually operated switch or a derail, a lock that can be locked or unlocked only by the craft or group of workmen applying the lock.

**Car Shop Repair Area.** One or more tracks within an area where rolling equipment testing, servicing, repairing, inspecting, or rebuilding is controlled exclusively by mechanical department personnel.

**Engine Servicing Area.** One or more tracks within an area where engine testing, servicing, repairing, inspecting, or rebuilding is controlled exclusively by mechanical department personnel.

**Switch Providing Direct Access.** A switch that if used by rolling equipment could permit the rolling equipment to couple to the equipment being protected.

### A. What a Blue Signal Signifies

A blue signal signifies that workmen are on, under, or between rolling equipment and requires that:

1. Rolling equipment must not be coupled to or moved, except as provided in **"Movement in Engine Servicing Area"** and **" Movement in Car Shop Repair Area of this Rule."**
2. Rolling equipment must not pass a blue signal on a track protected by the signal.
3. Other rolling equipment must not be placed on the same track so as to block or reduce the view of the blue signal.
    a. However, rolling equipment may be placed on the same track when it is placed on designated engine servicing area tracks or car shop repair area tracks, or when a derail divides a track into separate working areas.
4. Rolling equipment must not enter a track when a blue signal is displayed at the entrance to the track.
5. Controls or devices on rolling equipment that could affect equipment movement (ex. MU cables/ hoses, hand brakes, angle cocks, etc.) must not be changed or operated unless directed by individuals who placed the blue signals or by the employee in charge of workmen.

Blue signals or remote control blue signals must be displayed for each craft or group of workmen who will work on, under, or between rolling equipment.

**Protection Removed.** Blue signals may be removed only by the craft or group who placed them. Remote control display may be discontinued when directed by the craft or group that requested the protection. When blue signal protection has been removed from one entrance of a double-ended track or from either end of rolling equipment on a Main Track, that track is no longer under blue signal protection.

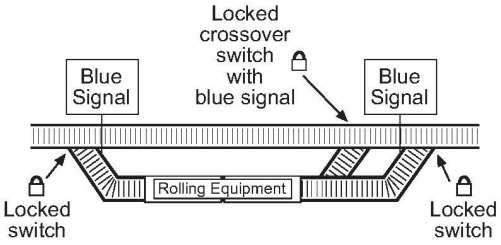
### B. How to Provide Protection

When workmen are on, under, or between rolling equipment and exposed to potential injury, protection must be provided as follows:

**On a Main Track.** A blue signal must be displayed at each end of the rolling equipment.

**On Other Than a Main Track.** One of these three methods of protection or a combination of these methods must be provided:

1. Each manually operated switch, including any facing point crossover switch that provides direct access must be lined against movement onto the track and secured by an effective locking device. A blue signal must be placed at or near each such switch.



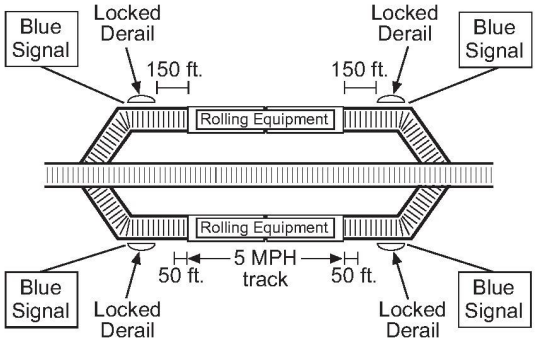

*[Diagram A.]*

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:

   a. Positioned at least 150 feet from the rolling equipment to be protected.

   or

   b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.




*[Diagram B.]*

3. Where remote control switches provide direct access, the employee in charge of the workmen must tell the switch operator what work will be done. The switch operator must then:

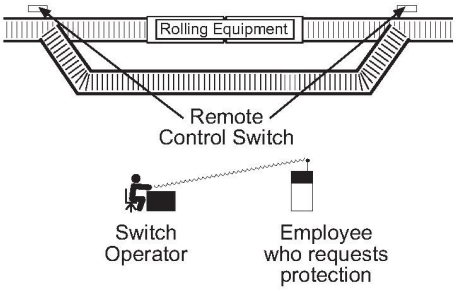
   a. Inform the employee in charge of the workmen that the switches have been lined against movement onto the track and devices controlling the switches have been secured.

   b. Not remove the locking devices unless the employee in charge of the workmen says it is safe to do so.

   c. Maintain for 15 days a written record of each notification that includes:

      - Name and craft of the employee in charge of the workmen requesting protection.
      - Identification of track involved.
      - Date and time the employee in charge of workmen is notified that protection was provided.

- Date, time, name, and craft of the employee in charge of workmen who authorized removal of the protection.

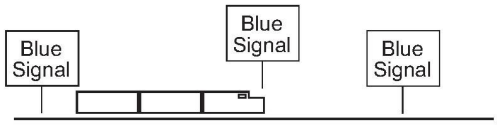



*[Diagram C.]*

**C. Blue Signal Readily Visible to Engineer**

In addition to providing protection as required in "**On a Main Track**" and "**On Other than a Main Track**", when workmen are on, under, or between an engine or rolling equipment coupled to an engine:

1. A blue signal must be attached to the controlling engine and be visible to the engineer or employee controlling the engine.
2. Engines equipped for remote control operations must be in manual.
3. The engine must not be moved.




*[Diagram D.]*

4. Engine controls, brakes, circuit breakers and electrical switches (except cab lights) must not be operated unless directed by individuals who placed the blue signals or by the employee in charge of workmen.

**D. Protection for Workmen Inspecting Markers**

Blue signal protection must be provided for workmen when they are:

1. Replacing, repositioning, or repairing a marker, and the rear of the train is on any track.

   or

2. Inspecting a marker by repositioning the activation switch or covering the photoelectric cell, and the rear of the train is on other than a Main Track.

**E. Protection for Emergency Repair Work**

If a blue signal is not available for employees performing emergency repairs on, under, or between an engine or rolling equipment coupled to an engine, the employee controlling the engine must be notified and appropriate measures taken to provide protection for the employees.

**F. Movement in Engine Servicing Area**

An engine must not enter a designated engine servicing area until the blue signal protection is removed from the entrance. The engine must stop short of coupling to another engine.

An engine must not leave a designated engine servicing area unless the blue signal is removed from the engine and the track in the direction of movement.

Blue signal protection removed to let engines enter or leave the engine servicing area must be restored immediately after the engine enters or clears the area.

An engine protected by blue signals may be moved on a designated engine servicing area track when:

1. An authorized employee operates the engine under the direction of the employee in charge of workmen.
2. The blue signal has been removed from the controlling engine to be repositioned.
3. Workmen have been warned of the movement.

**G. Movement in Car Shop Repair Area**

When rolling equipment on car shop repair tracks is protected by blue signals, a car mover may reposition the equipment if:

1. Workmen have been warned of the movement.
2. An authorized employee operates the car mover under the direction of the employee in charge of workmen.

## 5.14 Signs Protecting Equipment

When a sign reading

**STOP—TANK CAR CONNECTED**

**STOP—MEN WORKING**

**EMPLOYEES WORKING**

**SERVICE CONNECTIONS**

or a similar warning is displayed on a track or car, the car must not be coupled to or moved. Other equipment must not be placed on the same track in a manner that would block or reduce the view of the sign.

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### 5.14.1 Protection of Tank Cars when Loading or Unloading Hazardous Materials

When loading or unloading hazardous material from a tank car:

- Line switches and/or use derails to prevent access to the unloading area.
- Secure each switch or derail with a tag and effective locking device, and place red flags as required by 6.3.2.
- Apply the handbrake and block at least one wheel to prevent movement in either direction. If multiple tank cars are coupled together, sufficient handbrakes must be set and wheels blocked to prevent movement in either direction.
- Display caution signs reading "STOP" on the track or on the tank cars readily viewable by an on-track movement approaching the unloading area. The caution signs must be rectangular, at least 12 inches high by 15 inches wide, and display the word "STOP." The word "STOP" must appear in white letters at least 4 inches high, on a blue background.

## 5.15 Improperly Displayed Signals

If a signal is improperly displayed, or a signal, flag, or sign is absent from the place it is usually shown, regard the signal as showing the most restrictive indication it can give. However, if a semaphore arm is visible, it will govern.

Promptly report improperly displayed signals or absent fixed signals, flags, or signs to the train dispatcher.

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# 6.0 Movement of Trains, Engines and On-Track Equipment

## 6.1 Repeat Instructions

An employee who verbally receives instructions or information about train or engine movements must repeat them.

## 6.2 Initiating Movement

Before a train or engine initiates movement on a Main Track, controlled siding or another track where CTC is in effect, a crew member must:

- Receive track bulletins affecting their movement.

  or

- Determine from the train dispatcher or yardmaster if any track bulletins are needed.

When taking charge of a train which has been left standing on a main track or controlled siding without a crew, before moving the train contact the train dispatcher/control operator (or other supervisor in charge of train movements where the train dispatcher/control operator does not authorize movements) for permission to proceed.

### 6.2.1 Authority Behind Trains

MW employees must not request authority behind trains until it is determined that all trains within the requested limits are passing or have passed the location where the track will be initially occupied, fouled or where the authority will be used as a method of protection.

MW employees may use the graphical territory display of an electronic device to observe if any trains are occupying the limits to be requested. However, the graphical territory display must not be used to determine if trains have passed the location where the track will be initially occupied, fouled or the authority used as a method of protection.

Before requesting authority, determine train location by:
- Visually identifying the trains,
- Communicating directly with a crew member of each train, or
- Communicating with the train dispatcher

After receiving authority behind trains, and before occupying or fouling the track or using the authority as a method of protection, the EIC must establish direct radio contact with a crew member of each train listed on the authority and verbally:

- Confirm train identity by engine initials, number, and direction
- Determine the milepost location of the trains, and
- Tell the crew the location where the track will be initially occupied, fouled, or where the authority will be used as a method of protection, and
- Instruct the crew not to make a reverse movement within the authorized limits without contacting the EIC.

Use this information to verify trains have passed the location before occupying or fouling the track or using the authority as a method of protection. Document the train ID, direction, milepost location and time the train crew member was contacted on the authority form.

Do not permit any employees, including Multiple Work Groups, to use authority issued behind trains unless all employees and equipment are in view of the EIC of the authority at the location where they will occupy the track.

Before permitting a multiple work group in view of the EIC to use an authority issued behind trains, the EIC of the authority must determine all trains listed on the authority have passed the location where the Multiple Work Group will occupy or foul the track, or use the authority as a method of protection.

When an authority is issued voiding a previous authority and identifying additional trains to be followed, movement must stop until direct radio contact is established to ascertain the MP location of the additional trains. Direct radio contact is not required when employees are occupying the track with authority behind trains and additional authority is received behind the same trains.

### 6.2.2 Electronic Display of Authority

**A. Authority Displayed on Electronic Device**

Employees may receive authority with a BNSF approved electronic device (e.g. laptop, tablet or other electronic device).

A printed copy of the authority is not required when using an approved electronic device.

Do not make a hand-written copy of authority received on an electronic device.

**B. Device Malfunction**

If authority received with an electronic device is not viewable due to device malfunction:

- Before fouling the track, the authority may not be used to foul or occupy the track.

or

- After occupying the track, on-track movement must stop.

The authority may not be used or on-track movement may not resume until:

- The device returns to normal operation and the granted authority text becomes electronically viewable,

or

- Train dispatcher or control operator is contacted and a written copy of the authority is obtained.

Loss of communication, such as intermittent data connection, is not a device malfunction.

## 6.3 Track Occupancy

### 6.3.1 Track Authorization

The following authorize MW on Main Tracks:

- Rule 6.14 (Restricted Limits)
- Rule 9.15 (Track Permit)
- Rule 10.3 (Track and Time)
- Rule 14.0 (Track Warrant)
- Rule 15.2 (Protection by Track Bulletin Form B)
- Rule 17.0 (Foul Time)

The following authorize MW on controlled sidings and other tracks where CTC is in effect:

- Rule 10.3 (Track and Time)
- Rule 15.2 (Protection by Track Bulletin Form B)

**A. Confirmation of Limits before Granting Authority**

After verbally requesting authority:

1. When limits can be granted as requested:
   a. The train dispatcher or control operator must restate the limits to the requesting employee for confirmation.

b. The requesting employee must verify the limits restated by the train dispatcher or control operator are correct.

c. The train dispatcher or control operator will issue the authority with no change in the confirmed limits.

2. When limits cannot be granted as requested:

a. The train dispatcher or control operator must state limits that can be granted, and ask the employee if stated limits are usable.

b. If the changed limits are usable, the requesting employee must repeat the changed limits to the train dispatcher or control operator to verify understanding before the authority is issued.

If the authority issued is different than that discussed with the train dispatcher or control operator, the employee must not repeat the authority until a confirmation of the limits requested is identical to the issued authority.

**B. Before Occupying or Fouling Track**

The employee in charge must ensure that equipment and employees do not occupy or foul the track until authority is received. An employee requesting authority must be MWOR qualified and must tell the train dispatcher or control operator where the track will be initially occupied, fouled or the authority used as a method of protection.

When part of a work group, the EIC must have at least one other employee in the work group, MWOR qualified if available, read, verbally confirm, and understand the authority before equipment or employees foul the track.

MW employees must have information concerning any track bulletin Form B in effect that may overlap their authority before occupying the authority. After 12 hours have elapsed from the time Form B information was initially obtained, employees must verify if any additional Form B that may overlap their authority has been issued.

When receiving "joint" authority, contact each train and employee listed on the authority and determine the location of any working limits before occupying the overlapping portion of the authority.

If MW employees are unable to obtain authority and it is necessary to foul or occupy a Main Track, controlled siding or any track where CTC is in effect, flag protection must be established in both directions.

**C. Authority Limits**

When an authority includes only a portion of a CTC control point or Manual Interlocking, field signs (e.g. Track and Time Point, Release Point, etc.) may exist at the insulated joints to provide an identifiable reference for the authority limits. If no signal or field sign defines the authority limits, display a red flag between the work location and the insulated joint. The red flag must be displayed between the rails.

**D. Multiple Work Groups**

When two or more work groups use the same authority the EIC of the authority must have a Job Safety Briefing with each work group before allowing them to use the authority and must document the following on the "Multiple Work Groups Using the Same Authority" form:

1. Authority number
2. Name of each work group using the authority
3. Time acknowledgement received
4. Time authority limits are cleared

When multiple work groups use the same authority, all work groups will use the same working limits as the EIC of the authority.

**E. Working Limits**

1. Working limits are considered to be established at the limits of authority when an authority is not "joint".
2. When a "joint" authority does not overlap another authority, working limits are considered to be established at the limits of the authority.
3. When "joint" authorities overlap, and working limits are established within the overlapping portion of the authorities, red flags must be displayed to identify the working limits. The EIC of each overlapping authority must know the following when working limits are established in the overlapping portion of "joint" authorities:
   a. Working limits
   b. Name of the EIC of the working limits
4. When working limits overlap, designate only one employee as EIC of the overlapping working limits.
5. When an authority overlaps the limits of a Track Bulletin Form B, contact the EIC of the Form B and obtain permission before entering the Form B limits. Make all movements within the Form B limits under the direction of the EIC of the Form B. Do not establish additional Working Limits within the limits of a Track Bulletin Form B.

**F. Reporting Clear/ Releasing Authority**

The EIC of an authority must verify that all employees and equipment using the authority are clear of the limits before contacting the train dispatcher or control operator to report clear or release a portion of the authority. When verbally reporting clear the EIC must inform the train dispatcher/control operator that all employees and equipment using the authority are clear of the track. The EIC must recieve confirmation of this information from the dispatcher/control operator.

Track and Time, Track Permits, Track Warrants and Foul Time must be reported clear to the train dispatcher or control operator before time expires.

The EIC must request additional time before time expires. If the EIC cannot clear the limits of the authority before the expiration time, the authority is extended until the train dispatcher or control operator is contacted and the authority reported clear.

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### 6.3.2 Protection on Other Than Main Track (Inaccessible Track Protection)

The employee in charge must ensure that equipment and employees do not occupy or foul the track until protection is established. Where an employee is assigned the responsibility for yard movements (yardmaster, assistant trainmaster, etc.), the EIC must notify them of the location and work to be done. Employees must comply with instructions of the employee responsible for yard movements.

To render working limits inaccessible to trains, engines, on-track equipment, and railroad cars on a track other than a Main Track, controlled siding, or other track where CTC is in effect:

(a) Line facing point switches to prevent access to the track. Switches must be effectively spiked, clamped, or locked with an effective locking device. Apply a unique tag to the operating handle or hasp of hand operated switches.

(b) Place a red flag as outlined in Rule 5.4.7 (Display of Red Flag). Lock a derail capable of preventing access to the track where work will occur in derailing position near the red flag with an effective locking device. Apply a unique tag to the derail to prevent access. The red flag and derail must be placed a minimum of 150 feet in advance of the work location if the track speed is 10 MPH or less. If necessary, where the track speed does not exceed 5 MPH, the minimum distance in advance of the work location may be reduced to 50 feet.

Use high speed rated portable derails where the track speed is greater than 10 MPH but not greater than 20 MPH. Place the high speed portable derail a minimum of 500 feet in advance of the work location.

Where facing point switches and/or derails are not available or practical to render working limits inaccessible, use one or a combination of the following:

(c) Establish working limits on a Main Track, controlled siding or other track where CTC is in effect to prevent access to the track where inaccessible track protection is required.

(d) Discontinuity in the rail may be used to prevent movement into working limits. Place red flags to identify the working limits. When discontinuity is no longer present another method of on-track safety must be used.

Exception: A flagman capable of holding all trains, engines and on-track equipment clear of the working limits may be used in situations where options (a) through (d) above cannot be used effectively. Kicking of cars must be prohibited by written local instructions (e.g. Division General Notice, Timetable, etc.), or temporarily suspended, on track(s) to be protected by a flagman. To temporarily suspend kicking operations before using a flagman, the EIC must conduct a Job Safety Briefing with the employee responsible for yard movements on the tracks to be protected (e.g. yardmaster, trainmaster, switch crew, etc.) and document the time that kicking of cars is suspended and time work is completed and kicking operations may resume.

In locations where remote control switches or derails (such as those in a hump yard) are operated by a control operator or other designated employee, employees must establish protection as follows:

- The employee requesting protection must notify the employee controlling the switches or derails that provide access to the track where the work will occur.
- After being notified, the switch controller must line any remote control switch or derail to prevent movement to the affected track and apply a locking or blocking device to the control for that switch or derail.
- The switch controller must then notify the employee that protection is provided. Protection will be maintained until the switch controller is advised that work is complete and protection is no longer required.

### Protection Within Car Shop, Repair or Engine Servicing Areas

Before establishing working limits, the roadway worker in charge must conduct a job safety briefing with the mechanical employee in charge of the Car Shop, Repair or Engine Servicing Area. When locomotives, cars or motorized on-track equipment are on the track where working limits will be established, the roadway worker in charge and the mechanical employee in charge must jointly establish safeguards to protect the working limits against other movements. The roadway worker in charge must notify the mechanical employee in charge when work is completed and working limits have been cleared.

Railroad Workmen may utilize Blue Signal protection within Car Shop, Repair or Engine Servicing Areas to perform incidental duties foul of the track such as sweeping or washing work areas, changing light bulbs, etc. Employees not meeting the MWOR 5.13 definition of "Workmen" may not use Blue Signal protection as a method of on-track safety.

### Protection Within Intermodal Hub Facility

Before establishing working limits, the roadway worker in charge must conduct a job safety briefing with the intermodal ramp coordinator. When locomotives, cars or motorized on-track equipment are on the track where working limits will be established, the roadway worker in charge and the designated intermodal employee in charge must jointly establish safeguards to protect the working limits against other movements. The roadway worker in charge must notify the intermodal employee in charge when work is completed and working limits have been cleared.

### Protection on Other Than Main Track with Train or Engine

When work is performed that does not require the employees to be in front or behind the train or engine, employees may establish protection by flagging the train or engine to a stop. Employees may then give the crew specific instructions to make all movements under the direction of the MW EIC as outlined in the System Work Train Policy in the System Special Instructions.

When work is performed in front of or behind a train or engine, employees may establish protection in one direction by flagging the train to a stop. Employees may then give the crew specific instructions to make all movements under the direction of the MW EIC. Protection must also be established in the other direction to prevent any unannounced movements onto the track segment being protected. When cars coupled to an engine are between roadway workers and the engine, the air brakes on the cars must be cut in and charged. The crew of the train or engine must not leave the locomotive unattended or go off duty unless communication occurs with the EIC and the EIC establishes an alternate means of on-track safety.

### Snow Removal and Weed Spraying on tracks governed by MWOR 6.28

On-track maintenance machines may perform weed spraying and snow removal without establishing a method of on-track safety under the following conditions:

- All on-track movements in the affected area must be made at restricted speed, not exceeding 20 MPH.
- All on-track movements in the affected area must be equipped with a railroad radio and monitor the assigned radio channel
- All on-track movements in the affected area must be informed of such operations
- Humping or kicking of cars is temporarily prohibited on tracks requested by the EIC
- Employees assigned to work with weed spray or snow removal equipment may position switches or derails that can be operated without fouling the track, however may not perform any other task which would otherwise require a method of on-track safety
- On-track maintenance machines used for weed spraying and snow removal must be equipped with the following
  - Rotating beacon
  - Headlights
  - Working lights
  - Brake lights
  - Rearward viewing device (back up camera, rearview mirror, etc.)

  If any of these items cannot be utilized, a method of on-track safety must be established.

### 6.3.3 Visual Detection of Trains - Lone Workers / Lookouts

Roadway workers may perform minor work or a routine inspection using Visual Detection of Trains (lone workers and lookouts) as a method of on-track safety when all of the following conditions are met:

- The work will not affect the movement of trains or engines.
- Maximum authorized timetable speed is used to determine minimum separation distance.
- Natural or artificial light, weather and other physical conditions provide sufficient, unobstructed sight distance from the work location to detect approaching trains, engines or other on-track equipment movements.
  - Separation distance is the value provided in the Statement of On-Track Safety representing the nearest permissible location of an approaching movement at which roadway workers must be positioned in the pre-determined place of safety.
  - Sight distance is the range of visibility needed to detect approaching movements and move to the predetermined place of safety before that movement reaches the minimum separation distance.
- The ability to detect approaching on-track movements is not impaired by background noise, workwear, etc.
- The lone worker or all members of a work group using a lookout are able to move to the predetermined place of safety before the approaching movement reaches the minimum separation distance indicated on the Statement of On-Track Safety.

Visual detection of trains is prohibited when observation of approaching movements is based solely upon headlights, ditch lights or markers, such as during conditions of insufficient visibility as affected by darkness or inclement weather.

Lone workers and lookouts are required to complete a Job Safety Briefing and the Statement of On-Track Safety before using Visual Detection of Trains. If conditions change, cease work to determine if Visual Detection of Trains can continue to be used and if a new Statement of On-Track Safety must be completed. A separate Statement of On-Track Safety must be completed for each work location. The completed Statement of On-Track Safety must remain in the lone worker or lookout's possession while using Visual Detection of Trains. When no longer in use draw an X across the form.

Lone workers and Lookouts must be trained and rules qualified.

**Lone Workers (Individual Train Detection)**

A Lone Worker must consider:

- Any adjacent tracks, including equipment on such tracks, and how they may affect sight distance as conditions change
- Predetermined place of safety to be used when approaching on-track movements are detected.
- Time needed for the Lone Worker to move from the work location to the predetermined place of safety, accounting for pathway, tools, and other conditions.

When a Lone Worker identifies an approaching on-track movement they must position themselves in the predetermined place of safety before the movement reaches the minimum separation distance as provided on the Statement of On-Track Safety.

Individual train detection is prohibited when:

- Power operated tools or roadway maintenance machines are in use within hearing distance.
- Work must be performed within the limits of a control point, manual interlocking, remote controlled power switch (RCPS), or a remotely controlled hump yard facility. Automatic interlockings are not control points.

**Lookouts (Train Approach Warning)**

Lookouts must wear a BNSF approved ANSI Class II lime green vest. A BNSF designated lookout vest may only be worn by a roadway worker while performing the duties of a Lookout.

The Lookout must address the following items in a Job Safety Briefing with the entire work group and all members of the work group must agree on them before any member of the work group fouls the track:

- Any adjacent tracks, including equipment on such tracks, and how they may affect sight distance as conditions change
- All possible routes providing approaching movements access to the work location due to multiple tracks, such as crossovers, junctions, etc.
- Predetermined place of safety to be used when approaching on-track movements are detected.
- Method of warning to be used, for example a whistle, air horn, or tap on the shoulder. The method must:
  - be distinctive, clear and unquestionable
  - not require members of the work group to be looking in any particular direction
  - be recognizable and easily detected regardless of noise or work distractions.

  The lookout must be equipped with the tool to be used and demonstrate the method of warning in the Job Safety Briefing.
- Time needed for the work group to receive warning and move from the work location to the predetermined place of safety, accounting for pathway, tools, and other conditions.
- Maximum authorized timetable speed.
- Minimum separation distance from the work location as provided by the Statement of On-Track Safety
- Necessary sight distance beyond the minimum separation distance to allow the work group time to move to the predetermined place of safety before the approaching movement reaches the minimum separation distance

At the conclusion of the Job Safety Briefing, each member of the work group must initial the Statement of On-Track Safety completed by the lookout to confirm their participation and understanding of the Job Safety Briefing.

Employees who depend upon a lookout for on-track safety must remain in a position that allows them to receive warnings communicated by the lookout. When the lookout gives warning of an approaching on-track movement all members of the work group must immediately cease work and move to the predetermined place of safety.

A Lookout must devote their full attention to detecting approaching on-track movements, providing warning to the members of their work group, and may not engage in any unassociated task. Multiple lookouts may not be used to provide on-track safety for the same work group simultaneously.

## Statement of On-Track Safety

### STATEMENT OF ON-TRACK SAFETY

A lone worker using individual train detection or a lookout using train approach warning to establish on-track safety must complete this form before fouling a track.

Name of Lone Worker/Lookout: _____

Date:_____Subdivision:_____

Work Location:_____

Place of Safety:_____Method of Warning:_____

Lone Worker/Lookout must have sufficient sight distance to identify an approaching train and provide warning to the work group (as applicable), allowing time necessary for all individuals to be positioned in the place of safety when the approaching train reaches the minimum separation distance.

In the table below, place an X in the box adjacent to the maximum authorized timetable speed of trains at the location specified above to determine minimum separation distance.

| Maximum Authorized Timetable Speed in MPH | Minimum Separation Distance Must be positioned in place of safety when approaching train arrives at this distance from work location. | | Maximum Authorized Timetable Speed in MPH | Minimum Separation Distance Must be positioned in place of safety when approaching train arrives at this distance from work location. | |
|---|---|---|---|---|---|
| | X | Feet | | X | Feet |
| 5 | | 110 | 50 | | 1,100 |
| 10 | | 220 | 55 | | 1,210 |
| 15 | | 330 | 60 | | 1,320 |
| 20 | | 440 | 65 | | 1,430 |
| 25 | | 550 | 70 | | 1,540 |
| 30 | | 660 | 75 | | 1,650 |
| 35 | | 770 | 80 | | 1,760 |
| 40 | | 880 | 85 | | 1,870 |
| 45 | | 990 | 90 | | 1,980 |

When the maximum authorized timetable speed is not shown on the form, use the next higher speed.

Time Form Completed:_____

When utilizing a Lookout, each member of the work group must initial below to confirm participation/understanding of the Job Safety Briefing before fouling the track:

___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Draw an "X" across the form when no longer in use.

### 6.3.4 Train Coordination

Train Coordination provides for men and equipment to use a train's authority to establish working limits for track maintenance. The employee must contact the train's engineer to request use of Train Coordination. To establish working limits:

- The train must be in view and stopped.
- The employee in charge of working limits will communicate with the engineer who will notify other crew members that working limits are to be established.
- The engineer will make movements only as permitted by the employee in charge until the working limits have been released to the engineer.
- The train will not release its authority within the limits until those working limits have been released by the employee in charge.

**Establish Working Limits**

Working limits may be established within a train's authority limits as follows:

**A. TWC Territory**

1. With a train having authority to move in either direction that is not joint.

   or

2. With a train having authority to move in one direction only, working limits must not be established:
   - Behind the train.
   - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

**B. Rule 9.15 (Track Permit)**

With a train having the only track permit authority within the limits.

**C. Rule 9.14 (Current of Traffic)**

With a train having authority to move with the current of traffic, working limits must not be established:

- Behind the train.
- More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

**D. CTC Territory**

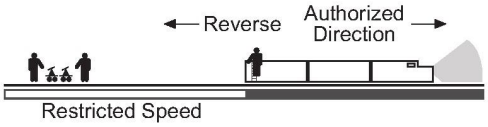
1. With a train having track and time authority that is not joint.

   or

2. With a train having authority to move in one direction only, working limits must not be established:
   - Behind the train.
   - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

# 6.4 Reverse Movements

Trains may make reverse movements on any Main Track, controlled siding or on any track where a block system is in effect at restricted speed and only within the limits the train has authority to occupy the track.




*[Diagram A.]*

## 6.4.1 Permission for Reverse Movements

Trains must obtain permission from the train dispatcher or control operator before making a reverse movement, unless the movement is within the same signaled block.

When a train is advised that working limits have been established behind their train, permission must be obtained from the employee in charge to make any reverse movements, including within the same signaled block.

# 6.5 Protecting Leading End of On-Track Movements

When view is restricted in the direction of movement preventing the on-track equipment operator from determining movement can be made safely (e.g., while backing, shoving, etc.), an employee must take an easily seen position on the leading end of the movement or be ahead of the movement to provide protection.

When protection is required, on-track equipment must not be moved until the equipment operator knows who is protecting the movement and how protection will be provided.

Before giving a signal or radio instruction to initiate movement, the employee providing protection must ensure switches are properly lined and derails are properly positioned for the intended movement, and no hazards or obstructions exist that will affect safety of the movement.

The employee providing protection shall not engage in any task unrelated to the movement.

When using hand signals:

- A job briefing must first occur to ensure a clear understanding of the signals
- The employee giving hand signals must remain in clear view of the equipment operator
- The equipment operator must immediately stop the movement if the employee providing signals or the light being used for signals disappears from view.

When using radio communications:

- A job briefing must first occur to ensure a clear understanding of the directions to be used as forward or backward movement of the on-track equipment.
- The equipment operator must respond to specific instructions given for each movement.
- Radio communications must specify the direction and distance and must be acknowledged when distance specified is more than 300 feet.
- The equipment operator must not act on any hand signals other than a signal to stop.

| |
|---|
| Movement must be stopped within half the distance specified unless additional instructions are received. |

When cars or engines are shoved on a Main Track or controlled siding, movement must not exceed 20 MPH.

When engaged in snow plow operations:

- One common authority may be used by both MW employees and the train crew when all employees are on the equipment,
- Maximum timetable speed applies unless a higher speed is authorized by the employee in charge.
- Employees are relieved from providing visual protection for snow plow being shoved.

### 6.5.1 Remote Control Movements

Remote control movements are considered "shoving" movements, except when the remote control operator controlling the movement is riding the leading engine in the direction of movement. Before initiating movement, the remote control operator or a crew member must be in position to visually observe the direction the equipment moves.

**Relief of Providing Protection**

The remote control operator is relieved from the requirement to stop within half the range of vision for movements with engine on leading end when:

1. The remote control zone has been activated.
2. Switches/derails are known to be properly lined.
3. Tracks within the zone are known to be clear of other trains, engines, railroad cars, and men and equipment fouling track.

This process must be repeated each time the remote control zone is activated.

## 6.7 Remote Control Zone (RCZ)

**A. Entering Remote Control Zone**

Before entering a RCZ, all employees that are not part of the remote control crew must determine whether the RCZ is activated. Employees may receive this information from the remote control operator, other authorized employee, or special instructions.

When the RCZ is activated, tracks within the RCZ must not be fouled with equipment, occupied, or switches operated until the RCZ has been deactivated.

Lone workers using individual train detection or work groups utilizing a lookout may perform minor work and routine inspections within an active RCZ but may not operate a switch.

**B. Transfer of an Active Remote Control Zone**

An active remote control zone may be transferred to other remote control operators. A job briefing must be conducted each time the zone is transferred between remote control operators and, if applicable, other authorized employee.

**C. Deactivating Remote Control Zone**

When the remote control operator ends the tour of duty, the remote control zone must be deactivated except the remote control zone may remain active if:

- Transferred.

  or

- Special instructions specify the hours the remote control zone is active.

## 6.8 Stopping Clear for Meeting or Passing

When stopping in the clear to be met by a train and the length of track allows, on-track equipment must stop 400 feet from the signal or the clearance point of the facing point switch.

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## 6.11 Mandatory Directive

Mandatory directives are written, printed or displayed authorities or speed restrictions issued by the train dispatcher or control operator.

Mandatory directives are:

- Track warrants
- Track bulletins
- Track and time
- Track permits
- Foul time

Mandatory directives that have been fulfilled or canceled shall be marked in accordance with applicable operating rules and retained for the duration of that tour of duty.

"VOID" must be indicated on mandatory directives which are made void. Where multiple mandatory directives are recorded on a single form, "VOID" must be indicated on each portion of the mandatory directive form that is reported clear/released.

## 6.13 Yard Limits

Within yard limits, trains or engines are authorized to use the Main Track not protecting against other trains or engines.

All train and engine movements entering or moving within yard limits must be made at restricted speed unless operating under a block signal indication that is more favorable than Approach.

### 6.13.1 On-Track Equipment Movements Through Yard Limits

Use one of the following when moving through yard limits:

- Track and time within CTC
- Track permit within Rule 9.15
- Track bulletin Form B per Rule 15.2

### 6.13.2 Maintenance in Yard Limits

To perform maintenance work on a Main Track within yard limits use one of the following:

- Track and time within CTC
- Track permit within Rule 9.15
- Track bulletin Form B per Rule 15.2
- Establish flag protection in accordance with Rule 6.19

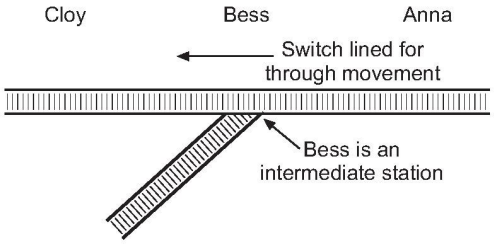
## 6.14 Restricted Limits

Between designated points specified by signs and in the special instructions, trains, engines and on-track equipment may use the Main Track not protecting against other trains, engines and on-track equipment. All movement of trains and engines must be at restricted speed.

Men and equipment may perform maintenance in restricted limits under the provisions of Rule 6.19 (Flag Protection) or Rule 15.2 (Protection by Track Bulletin Form B).

## 6.17 Switches at Junctions

The normal position for a junction switch is for through movement on the Main Track where the junction is an intermediate station.




*[Diagram A.]*

## 6.19 Flag Protection

A flagman must not engage in any task not associated with flagging duties.

### A. Emergency Flag Protection

When flag protection is used to protect on-track equipment, employees or track conditions in an emergency situation, flagmen must immediately go at least the distance prescribed by the timetable or other instructions for that territory and protect all possible access to the restriction. When reaching the correct distance, flagmen must remain there until a train is stopped or flag protection is no longer necessary.

Flagmen must:

- Be rules qualified.
- Be sent in both directions to provide protection, unless there is a current of traffic and the train dispatcher has relieved the employee of flagging against the current of traffic. When relieved of flagging against the current of traffic, the flagman must notify the train dispatcher when he or she is clear of the track.
- Never rely on others for information about approaching trains.
- Never estimate the nature, speed or probable time of the next approaching train.

Each individual flagman should carry a minimum of:

- Six red fusees.
- By day, a red flag.
- By night, a white light.

If only one flagman is available, the flagman must immediately provide protection in the direction from which the first train is expected. Then they should provide protection in the opposite direction.

**B. Use of a Flagman for Protection on Tracks where Trains or Engines are Required to Stop within One-Half the Range of Vision**

Where trains or engines are required to move at restricted speed or under the provisions of Rule 6.28 (Movement on Other Than Main Track), flag protection may be provided by a single flagman at the location to be protected. The flagman must remain at the location to be protected to watch for approaching movements. When a movement approaches from either direction, the flagman must go toward the approaching movement signaling stop with:

- A red flag by day,
- A white light or fusee by night.

An employee functioning as a flagman for any purpose (emergency or otherwise) must not engage in any task not associated with flagging duties.

## 6.19.1 Protection in Restricted Limits or Non-Signaled Yard Limits by Lining Switch

Flag protection may be established within Restricted Limits or non-signaled Yard Limits by lining and locking all facing point switches to prevent direct access to the protected track segment, including all crossover switches. When conditions permit, notify the train dispatcher and/or yardmaster of your intention to employ Rule 6.19.1 before lining the switches.

After determining there are no movements of trains, engines or on-track equipment on the portion of track to be protected, follow these steps for each switch to be lined and locked:

1. Reverse the switch.
2. Spike, clamp or lock the switch with an effective locking device or remain at the switch while protection is required.
3. Display a red flag between the rails of the Main Track at the switch.
4. When flag protection is no longer required, remove the flags and restore the switches to their normal position.

A Main Track authority and/or protection may be used to establish working limits to prevent movement into the protected track segment. This may be used in combination with a facing point switch that is lined to provide protection from the opposite direction.

## 6.19.2 Protection of On-Track Equipment

Do not depend on on-track equipment (including equipment with track shunts), other than engines or cars, to actuate block signals, interlocking signals, or highway crossing signals or to be protected by such signals. Provide flag protection when required.

## 6.19.3 Acknowledgment of Flagging

When flagged, the engineer must acknowledge stop signals promptly. The flagman must continue giving stop signals until the engineer acknowledges them and reacts to them. After stopping, the engineer must be told why the train was flagged and act accordingly.

## 6.19.4 Fouling Double Track

In double track or other areas where a current of traffic is in effect, flag protection must be provided against movements against the current of traffic, unless the train dispatcher advises that no movements have been or will be authorized. Employees who receive this advice must notify the train dispatcher when protection is no longer required.

### 6.19.5 Protection in ABS by Lining Switch

When employees or on-track equipment are within ABS limits and require flag protection, the protection may be provided by lining and locking Main Track switches (facing or trailing point switches) against movement at or beyond the point where the train or engine will stop movement or clear the Main Track. When conditions permit, notify the train dispatcher of your intention to employ Rule 6.19.5 before lining the switch.

If the switch is located within a block other than the one occupied, do not make movements under this protection until 5 minutes after the switch has been lined. Also, make sure no train or engine is between the switch and the train or engine being protected or is within or closely approaching the block where the switch is located.

Employees and on-track equipment in ABS limits may be protected by lining and locking Main Track switches. When providing this type of protection, follow these steps for each switch to be lined and locked:

1. Reverse the switch.
2. Remain at the switch for 5 minutes to ensure a train or engine is not approaching.

   Note: If a train or engine approaches:

   a. Immediately restore the switch to normal position.

   b. After the train or engine is no longer a factor, reverse the switch again.

   c. Remain at the switch for another 5 minutes to ensure a train or engine is not within the limits.
3. To prevent movement from another track, lock the switch with an effective locking device or remain at the switch while protection is required.
4. Place a red flag at the switch and at the other end of the working limits.

## 6.20 Protection of Equipment Left on Main Track

MW employees that receive permission from the train dispatcher to leave equipment on the Main Track or a controlled siding do not need to provide protection for the equipment if the train dispatcher gives verbal relief.

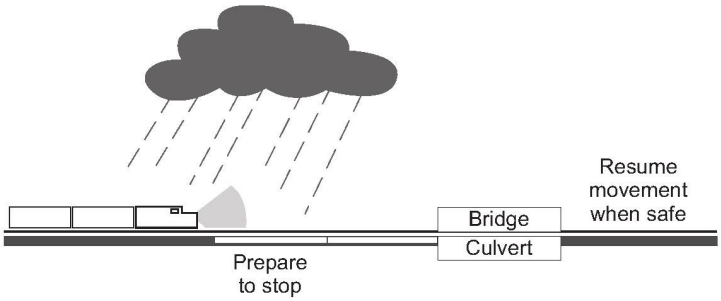
The train dispatcher may request the MW employees to report clear of their authority when the equipment is stored or tied down on the Main Track or controlled siding. The train dispatcher must provide protection for the equipment.

All crews that use the Main Track at that point must be notified of the equipment location and must move at restricted speed when approaching the location.

## 6.21 Precautions Against Unusual Conditions

Protect trains, engines and on-track equipment against any known condition that may interfere with their safety. Advise the train dispatcher of such conditions by the first available means of communication.

In unusually heavy rain, storm, or high water, on-track equipment must approach bridges, culverts, and other potentially hazardous points prepared to stop. If they cannot proceed safely, they must stop until it is safe to resume movement.




*[Diagram A.]*

### 6.21.2 Water Above Rail

Do not operate trains and engines over tracks submerged in water until the track has been inspected and verified as safe.

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, a mechanical department supervisor must authorize the movement.

## 6.24 Movement on Double Track

On double track, trains must keep to the right unless otherwise instructed.

## 6.26 Use of Multiple Main Tracks

Unless otherwise indicated in individual subdivision special instructions, multiple Main Tracks will be designated as follows:

- When using Main Tracks in a northward or eastward timetable direction, they will be numbered from left to right, beginning with Main 1.
- When using Main Tracks in a southward or westward timetable direction, they will be numbered from right to left, beginning with Main 1.

## 6.27 Movement at Restricted Speed

When required to move at restricted speed, movement must be made at a speed that allows stopping within half the range of vision short of:

- Train.
- Engine.
- Railroad car.
- Men and equipment fouling the track.
- Stop signal.

  or

- Derail or switch lined improperly.

When a train or engine is required to move at restricted speed, the crew must keep a lookout for broken rail and not exceed 20 MPH.

Comply with these requirements until the leading wheels reach a point where movement at restricted speed is no longer required.

## 6.28 Movement on Other Than Main Track

Except when moving on a Main Track or on a track where a block system is in effect, trains, engines and on-track equipment must move at a speed that allows them to stop within half the range of vision short of:

- Train.
- Engine.
- Railroad car.
- Men and equipment fouling the track.
- Stop signal.

  or

- Derail or switch lined improperly.

### 6.28.3 Cars or Equipment Left on Siding

Avoid leaving cars or equipment on sidings unless authorized by the train dispatcher, except in an emergency. In this case, notify the train dispatcher immediately.

Do not perform maintenance on sidings, unless approved by the train dispatcher, except in an emergency. In case of an emergency, notify the train dispatcher immediately.

### 6.28.4 Storing Equipment on Other Than Main Track

When on-track equipment is stored on other than a Main Track or controlled siding, all switches that provide direct access to the track must be:

- Lined against movement.
- Spiked, clamped or locked with an effective locking device.
- Properly tagged.

When unable to line a switch away, place a red flag and derail to prevent movement onto the track protected and protect on-track equipment as outlined in Rule 15.4 (Protection When Tracks Removed from Service). Lock derails with an effective locking device and notify the train dispatcher or yardmaster.

When tying-up on-track equipment, observe the following requirements:

- Set brakes and secure booms or other extensions to prevent fouling adjacent tracks
- For machines with rotating cabs, engage the house lock (drop pin) to prevent movement
- Lower devices attached to booms, such as clam shells or magnets so they rest on the ground or the bottom of the car
- Ensure that the equipment is properly enclosed to prevent theft or vandalism. If necessary, notify railroad police to provide protection of company equipment.

## 6.29 Inspecting Trains

### 6.29.1 Inspecting Passing Trains

Employees, except those permitted to continue working while a train is passing on an adjacent controlled track, must inspect passing trains.

Employees may remain in equipment when inspecting passing trains.

If dismounting equipment, do so on the side opposite an approaching train.

Do not cross adjacent tracks solely for the purpose of inspecting a passing train.

If any of the following conditions are detected, notify crew members on the passing train by any available means:

- Overheated journals
- Sticking brakes
- Sliding wheels
- Wheels not properly positioned on the rail
- Dragging equipment
- Insecure contents
- Signs of smoke or fire
- Headlight or marker improperly displayed
- Any other dangerous condition

Move to a safe location to avoid being struck by objects that may fall or protrude from a passing train. Take articles that fall from cars to a secure area and report them to the supervisor and/or train dispatcher.

## 6.30 Receiving or Discharging Passengers

**Responsibilities of Approaching Movements**

When notified that a passenger train will be at a station, do not pass between station platform and a passenger train until assured that all passengers and employees have cleared the track between the passenger train and the station platform. Movement may then pass when preceded by an employee walking ahead of the movement.

**Other than Main Track Movements**

A movement must not pass between a passenger train and the station platform being used unless safeguards are provided.

# 6.32 Road Crossings

## 6.32.1 Providing Warning Over Road Crossings

When cars are shoved over road crossings at grade, an employee must be on the ground at the crossing to warn traffic until the crossing is occupied. Make any movement over the crossing only on the employee's signal.

Such warning is not required when it is clearly seen that no traffic is approaching or stopped at the crossing. Shoving movements must not exceed 15 MPH over crossing until occupied.

## 6.32.2 Automatic Crossing Devices

Under any of the following conditions, a movement must not foul a crossing equipped with automatic warning devices until the device has been operating long enough to provide warning and the crossing gates, if equipped, are fully lowered:

- Movement has stopped within 3,000 feet of the crossing.
- Movement is within 3,000 feet of the crossing and speed has increased by more than 5 MPH.
- Movement is closely following another movement.
- Movement is on other than the Main Track or siding.

  or

- Movement enters a Main Track or siding within 3,000 feet of the crossing.

Employees must observe all automatic warning devices and report any that are malfunctioning to the train dispatcher or proper authority by the first available means of communication. Notify all affected trains as soon as possible.

**Power Off Indicators**

When the power off indicators on the side of signal housings at highway crossings are flashing or not illuminated, immediately notify the Train Dispatcher.

**Flagger Responsibilities**

If assigned the duties of a flagger when automatic warning devices are malfunctioning, observe the following requirements:

- If protection can be provided for each direction of highway use, instruct the train to proceed at normal speed.
- When unable to provide protection for each direction of highway use, instruct the train to:
  - Proceed through the crossing at a speed not to exceed 15 MPH.
  - Resume normal speed after the lead engine is through the crossing.

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## 6.32.3 Providing Warning for Adjacent Tracks

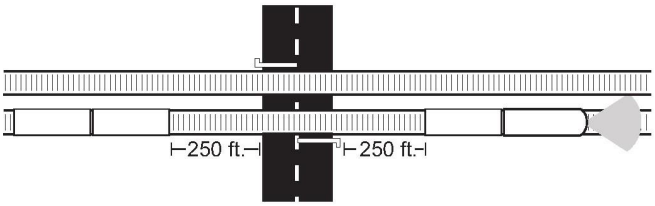
When practical, position an employee on the ground to warn traffic against movements approaching on adjacent tracks, under either of the following conditions:

- On-track equipment or cut of cars is parted closer than 250 feet from a road crossing.
- On-track equipment is stopped closer than 250 feet from a road crossing.

## 6.32.4 Clear of Crossings and Signal Circuits

Leave cars, engines, or equipment clear of road crossings and crossing signal circuits.

When practical, avoid leaving cars, engines, or equipment standing closer than 250 feet from the road crossing when there is an adjacent track.




*[Diagram A.]*

## 6.32.5 Unnecessary Activation of Crossing Warning Devices

Before performing track maintenance near grade crossings open to vehicular traffic that causes crossing warning devices to activate unnecessarily:

- Arrange for an authorized signal department employee to disable or control the devices while the maintenance is being performed, or;
- If an authorized signal department employee is unavailable to disable/control the devices, protect the crossing with properly equipped flagger(s) and notify the BNSF Signal Operations Center of the false activation.

If crossing warning devices are unintentionally activated due to track maintenance:

- Protect the crossing with properly equipped flagger(s) until relieved by a signal department employee, or the maintenance is completed and devices are no longer falsely activated. In these emergency situations flaggers may use a red/orange flag if a STOP/SLOW paddle is unavailable.
- Notify the BNSF Signal Operations Center of the false activation.

Engineering Instructions provide guidance for determining working distances from crossings and the use of long jumpers to avoid unnecessary activation of crossing warning devices.

Avoid lifting crossing warning device gate arms to allow vehicle traffic through crossings, except in emergencies.

Avoid unnecessary activation of crossing warning devices (lights, gates, bells) caused by leaving switches open or permitting equipment to stand within the controlling circuit. If this cannot be avoided, and if the warning devices are equipped for manual operation, manually operate the devices for movement of traffic. Restore devices to automatic operation before a train or engine occupies the crossing or before it leaves the crossing.

Turn off manually activated track shunts when on-track equipment is stopped within the approach to a grade crossing equipped with automatic crossing warning devices.

## 6.32.6 Blocking Public Crossings

When work is performed on or near a crossing protected by an automatic warning device, and if the work performed affects automatic warning device, provide protection.

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TOC Home

## 6.33 Familiar with Territory

Employees must be familiar with the territory they are operating on or be accompanied by an employee who is.

## 6.50 Movement of On-Track Equipment

On-track equipment must move at a speed that will allow stopping within half the range of vision short of:

- Train
- Engine
- Railroad car
- Men and equipment fouling the track
- Stop signal

  or

- Derail, movable point frog or switch lined improperly.

### 6.50.1 Maximum Authorized Speed

On-track equipment must not exceed the manufacturer's recommended speed or any of the following speeds, whichever is less:

| Type of Equipment | Speed |
|---|---|
| Hi-rail vehicles 15,000 GVWR or under | 45 MPH |
| Locomotive Cranes (with or without cars), Other on-track equipment | 30 MPH |
| Hi-rail vehicles over 15,000 GVWR, On-track equipment operating within Restricted Limits or Yard Limits without on-track safety established, On-track equipment operating in the affected area of snow removal or weed spraying with no method of on-track safety established | 25 MPH |
| On-track equipment towed by other on-track equipment | 20 MPH |

**Exception:** Speed of on-track equipment designed for high speed travel will be governed by the System Special Instructions.

**Working Limits**

All movements within working limits must be under the direction of the EIC.

- Do not exceed 20 MPH within established working limits on other than Main Track.
- Do not exceed 20 MPH within established working limits on a Main Track, controlled siding or other track where CTC is in effect unless otherwise instructed by the EIC.

When determining the proper speed, take into consideration the following:

- Track conditions, such as grade, curvature and rail condition
- Load
- Sight distance
- Visibility
- Other conditions that might adversely affect the safe operation of on-track equipment.

### 6.50.2 Approaching Road Crossings at Grade

On-track equipment with manually activated track shunts may use the track shunts only to assist with movements over road crossings at grade.

On-track equipment (including those with activated track shunts) must approach road crossings at grade prepared to stop and must yield the right of way to vehicular traffic. If necessary, warn vehicular traffic to protect on-track equipment movement. The use of horns at crossings by roadway machines and hi-rail equipment is optional at the discretion of the operator.

De-activate manual track shunts when on-track equipment is approximately 100 feet past the crossing.

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Do not use manually activated track shunts:

- At crossings identified in timetable subdivision special instructions.
- Within a control point or manual interlocking at either end of track and time limits, or when track and time limits are entirely within a control point or manual interlocking, unless the control operator has been notified the shunts will be used.

### 6.50.3 Equipment Components Clear

Before passing over crossings, switches, derails and frogs, be sure all equipment components will clear.

### 6.50.4 Hi-rail Vehicle Movement Over Spring Frogs, Self- Guarded Frogs, Lift Frogs, Flange-Bearing Diamonds and Switches

Do not move hi-rails through the spring side of spring rail frogs or the low speed routes of lift frogs or flange-bearing diamonds, or make a facing point move through self-guarded frogs, except as outlined below:

- The hi-rail must stop before moving through the spring-rail frog, the self-guarded frog, or the low speed routes of the lift frog or flange-bearing diamond.
- When available, an employee must remain on the ground to guard against derailment and direct the hi-rail operator through the spring side of the frog.

Spring switches must be lined and locked for the route to be used before moving through the switches.

Hi-rail operators must look to ensure that switches are properly lined for movement before passing through the switches. When operating a hi-rail over a power operated switch, power operated derail, self-guarded frog, or low speed routes through a lift frog or flange-bearing diamond, do not exceed 5 MPH. Additionally, hi-rails must reduce to one half of their maximum authorized speed when operating over all other hand operated switches and frogs.

When operating a hand operated switch for hi-rail movement, return and lock it in the normal position after the hi-rail has passed the switch. When the train dispatcher or control operator is unable to line a dual control switch for the desired route, hi-rail operators must first receive permission to operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches).

### 6.50.5 Hi-rail Limits Compliance System (HLCS)

The Hi-rail Limits Compliance System (HLCS) is a safety system designed to monitor the position of HLCS equipped on-track equipment.

On subdivisions where HLCS is in effect, all HLCS equipped on-track equipment fouling or occupying the track authorized by Track and Time, Track Warrant or Track Permit must be associated with the authority and the system must be activated, including within Form B limits. However, HLCS cannot be associated with a Track Bulletin Form B. The HLCS thumbwheel must be set to indicate the authorized track when the equipment is fouling that track.

On subdivisions where HLCS is in effect, a briefing between the EIC receiving Track and Time, Track Warrant or Track Permit authority and the control operator/train dispatcher must occur before:

- Initial authority is obtained each calendar day (during the Confirmation of Limits Briefing that occurs just before receiving authority)
- First authority is obtained following control operator / train dispatcher shift change
- Permitting additional HLCS equipped on-track equipment to foul or occupy the track, including those of multiple work groups

- First authority is obtained after moving from one control operator / train dispatcher district to another

During the briefing the EIC must include:

- HLCS identification numbers of all HLCS equipped on-track equipment which will foul or occupy the track using the authority
- Notification of all non-operational HLCS equipped on-track equipment (by HLCS identification number) which will foul or occupy the track using the authority

  or;

- Information that no HLCS equipped on-track equipment will foul or occupy the track using the authority

Electronic requests of authority via approved electronic devices (e.g., Smart Mobile Client) which include all the required HLCS information satisfy the HLCS briefing requirements.

HLCS identification numbers of all equipment of the work group that will foul or occupy the track must be listed on the authority form of the EIC.

HLCS identification numbers of all multiple work group's equipment that will foul or occupy the track using the authority of the EIC must be listed on the "Multiple Work Group Using the Same Authority Form" next to the name.

The control operator / train dispatcher must associate all identification numbers of HLCS equipped on-track equipment provided in the briefing with the applicable authority.

**Required Visual Display Unit (VDU) Test**

The equipment operator must test the LED displays and audible tones of the VDU as soon as practical during each work assignment requiring the HLCS to be activated. To perform this test the equipment must be:

- Communicating with an HLCS capable base station (NET light illuminated)
- Positioned greater than 1.1 miles from either end of authority limits to which the system has been associated
- Stopped when not positioned on track

Press the VDU test button once and allow one minute for the system to complete the test cycle.

If the VDU fails the functional test of LED displays and audible tones or any other problems are experienced with HLCS (e.g. tracking issues, radio problems, system is non-operational, etc.), contact the TSOC desk and select the HLCS option to report the system as defective and open a trouble ticket during the work assignment the problem is identified.

**Optional HLCS Equipment Position Test**

After receiving authority and before fouling or occupying the track, the equipment operator may perform the position test to verify the equipment is located within authorized limits. To perform this test:

- Notify control operator / train dispatcher of the intent to perform the HLCS equipment position test
- Position the HLCS equipped equipment within 15 feet of the track for which authority has been provided
- Position the VDU thumb wheel to indicate the track for which authority has been provided
- Activate the HLCS by engaging the steering wheel lock or placing the toggle switch in the on position to simulate that the equipment is on the track

Note: This position test can be conducted only when equipment is off the track and will verify only that the equipment is positioned within the authorized limits. This test does not verify that the equipment is on the correct track.

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**VDU - EXCEED Indication Procedures**

When equipment is outside authority limits, but in immediate proximity to the limits and no movement is evident:

- Move equipment into authority limits
- Contact the control operator / train dispatcher and be governed by their instructions
- Report circumstances to your supervisor

When equipment is within authority limits:

- Check the thumb wheel for proper position
- Contact the control operator / train dispatcher and be governed by their instructions

## 6.51 Maintaining a Safe Braking Distance

On-track equipment operators are responsible for maintaining a safe braking distance between their on-track equipment and other on-track equipment, trains and engines.

On-track equipment operators must:

- Ensure that on-track equipment remains at least 300 feet behind a train or engine except when it has been determined in a Job Safety Briefing that the train or engine is stopped and will not move.
- Communicate with roadway workers who are foul of track before getting closer than 25 feet to them
- Ascertain before backing equipment that a backup alarm is activated and/or the appropriate whistle signal has been sounded and that the distance to be traveled is clear of workers and on-track equipment.
- Except in Bunching Mode, use radio, red flag or hand signals to notify the operator of the following on-track equipment when slowing or stopping. If the following on-track equipment operator does not acknowledge the radio, red flag or hand signals, stop, dismount and proceed, while remaining clear of the track, toward the following on-track equipment giving stop signals.

Follow these procedures when parking/storing on-track equipment:

- Secure all brakes, booms, locks and hooks.
- Dismount the equipment on the field side of the track away from traffic.
- If the track is between two live tracks, dismount on the side designated in the Job Safety Briefing.

**Travel Mode:** Travel mode applies to on-track equipment moving to and from a work and/or tie-up location.

While in travel mode:

- Ensure that on-track equipment remains at least 300 feet behind other on-track equipment.

**Work Mode:** Work mode applies to on-track equipment stopped or moving slowly in the performance of maintenance activities.

While in work mode:

- Maintain at least 50 feet between on-track equipment
- It is the responsibility of all on-track equipment operators to maintain a safe distance between their equipment and all employees and other equipment within their work zones.

**Controlled Movement Mode:** When environmental conditions are consistent with safe travel on the rail, on-track equipment may travel for short distances only as necessary for movement over crossings at grade, diamonds, movable structures and control points

A Job Safety Briefing must be conducted with all on-track equipment operators involved and the EIC that includes at minimum:

- The specific task
- The conditions under which the task will be done
- How the task will proceed

While in Controlled Movement:

- On-track equipment may be positioned no less than 50 feet apart
- Movement of on-track equipment must not exceed a walking pace.

This operation may also be used when beginning or ending travel mode at the tie-up location.

**Transitioning Mode:** Operators are not required to maintain 300 feet of separation between on-track equipment when transitioning between Travel Mode, Work Mode and Controlled Movement mode.

While in Transitioning mode:

- A minimum of 50 feet of separation must be maintained

**Bunching Mode:** On-track equipment may be "bunched" when stopping/parking, re-railing, towing, or switching a cart between two pieces of on-track equipment.

While in Bunching mode:

- Conduct a Job Safety Briefing, with the Employee in Charge, to discuss when and where the bunching mode will occur.
- All employees must remain clear of the track until the entire movement has stopped, unless otherwise instructed by the employee in charge.
- After stopping, the lead on-track equipment operator must do the following:
  - Dismount the equipment. Assume a position that is visible to a following on-track equipment operator and anyone who could step into the path of the next approaching equipment.
  - Ensure all other employees exit the equipment and remain clear
  - Use a red flag and hand signals to communicate to following on-track equipment.
  - Each successive operator must follow this procedure to spot the next piece of on-track equipment.

Bunching mode must be used when on-track equipment must perform a specific, single task that requires less than 50 feet of separation while in work mode. When the task is complete notify the Employee in Charge.

## 6.52 Spacing of Equipment

When on-track or off-track equipment is used, roadway workers and machine operators must maintain safe spacing to prevent machines from contacting other machines or roadway workers.

It is the responsibility of all equipment operators to maintain a safe distance between their equipment and other employees and equipment.

**Work Zones around Machines (On-Track)**

- A work zone extends from a point 25 feet in front of a machine to a point 25 feet behind a machine unless a different understanding is established in a job briefing. The work zone on each side of a machine will be designated in the job briefing.
- Roadway workers must not enter a machine's work zone without first communicating with the operator to establish safe work procedures.
- If a machine is approaching roadway workers who are foul of the track, the operator must communicate with the roadway workers before getting closer than 25 feet to them.

**Work Zones around Machines (Off-Track)**

- A work zone extends in a 25-foot radius around a machine unless a different understanding is established in a job briefing.
- Roadway workers must not enter a machine's work zone without first communicating with the operator to establish safe work procedures.
- If a machine is approaching roadway workers, the operator must communicate with the roadway workers before getting closer than 25 feet to them.

Maintain at least 300 feet between on-track equipment when in travel mode and 50 feet between on-track equipment when in working mode.

- When machines must be spaced closer than required because of special circumstances such as when the length of the tie-up location permits; a piece of Roadway equipment has to be re-railed or moved (towed); a cart that must be switched between two pieces of on-track equipment, etc. the machine operators involved, any affected Roadway workers and the employee in charge must have a thorough Job Safety Briefing including;
  - The specific task
  - The conditions under which the task will be done
  - How the task will proceed including requiring an employee on the ground giving hand signals with a red flag to guide the movement.
- Allow no Roadway Workers between machines until all movements on adjacent tracks have been stopped at least 50 feet from the work location

## 6.53 Getting On and Off Equipment

Do not get on or off moving equipment.

In emergencies employees may get off moving equipment.

Exception: Employees may get on or off the following equipment when moving at less than 1 MPH in work mode:

- TLM
- High Speed Undercutter
- Continuous Action Tamper
- Ballast Distribution Systems 100 & 200
- Shoulder ballast cleaners
- Rail Heaters.

## 6.54 Display of Lights

If equipped with lights, on-track equipment will display a white light to the front and a red light to the rear.

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## 6.55 Handling Emergency Situations

When there is an emergency, employees must not attempt to remove on-track equipment at the risk of their own safety.

## 6.56 Replacing Displaced Signals and Signs

Employees operating on-track or off-track equipment must replace signals such as flags, fixed signals and signs if they are displaced or disturbed. Refer to Engineering Instruction for Asset Tracking to determine correct placement of fixed signals and signs.

## 6.57 Manual Interlockings

Employees may obtain track and time, foul time or be governed by the instructions of the control operator to proceed through or perform maintenance within the limits of a manual interlocking. Employees must contact the control operator before occupying the limits of a manual interlocking and they must advise the control operator when the manual interlocking limits have been cleared.

## 6.58 Automatic Interlockings

**Movement through Automatic Interlocking Limits**

Automatic interlockings may be equipped with a maintenance of way release box. At locations so equipped, comply with the instructions in the maintenance of way release box before entering the limits of the interlocking.

At locations not equipped with a maintenance of way release box, comply with the following:

If on-track equipment shunts the track and the automatic interlocking displays a proceed indication:

- Stop before passing the signal.
- If the signal continues to display a proceed indication, proceed if there is no conflicting movement.

If the on-track equipment shunts the track and the automatic interlocking displays a red or dark aspect:

- Stop before passing the signal.
- Remain at the signal while the employee in charge or an employee qualified on these rules operates the time release according to the instructions posted in the release box.

  If, after operating the time release, the signal displays a proceed indication, on-track equipment may proceed through the interlocking if there is no conflicting movement. If the signal displaying a proceed indication changes to an indication requiring a stop, stop at once.

  If, after operating the time release, the signal does not clear, on-track equipment must not proceed through the interlocking until an employee ensures that there are no conflicting movements.

When more than one piece of on-track equipment that shunts the track is involved in the movement, each piece of on-track equipment must apply this rule separately.

If the on-track equipment does not shunt the track at an automatic interlocking:

- Stop before passing the signal.
- Move through the automatic interlocking only after determining that there are no conflicting movements. If necessary, an employee must go to the crossing and protect the movement.

A signalman may authorize movement through an automatic interlocking by providing proper protection on all routes.

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### Working within Automatic Interlocking Limits

On-Track Safety must be provided while working within the limits of an automatic interlocking by:

- Obtaining authority or establishing protection on all routes into and out of the interlocking limits. A MW key release may be used, according to the instructions posted inside the release box, to provide protection against movements on the conflicting routes only.

  or

- Obtaining protection within the limits of the interlocking from a signalman who will ensure that signals on all routes into the interlocking limits display a STOP indication.

## 6.59 Movable Bridges, Railroad Crossings and Gates

### Movable Bridges

On-track equipment must stop at least 50 feet from the nearest end of a movable bridge span and not proceed until it has been determined that there is no conflicting movement.

### Railroad Crossings

At railroad crossings not protected by gates, on-track equipment must stop and not move over the crossing until it is known that there are no conflicting movements.

### Railroad Crossings Equipped with Gates

When a railroad crossing is equipped with a gate, and when the gate is lined against the route to be used, on-track equipment must stop at least 50 feet before the gate and line the gate against the conflicting route. Where required, gates must be restored to normal position after the on-track equipment has passed the crossing.

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# 7.0 Switching

## 7.1 Switching Safely and Efficiently

While switching, employees must work safely and efficiently and avoid damage to contents of cars, equipment, structures, or other property.

Do not leave cars or on-track equipment standing where it will foul equipment on adjacent tracks or cause injury to employees riding on the side of a car, engine or on-track equipment.

On tracks where clearance point is indicated, leave cars and on-track equipment beyond the clearance point.

If the clearance point is not indicated or visible, determine the clearance point by standing outside the rail of adjacent track and extend arm towards the equipment (cars, engines or on-track equipment). When unable to touch the equipment, leave equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.

## 7.4 Precautions for Coupling or Moving Cars or On-Track Equipment

Before coupling to or moving cars or on-track equipment, verify that the cars or on-track equipment are properly secured and can be coupled and moved safely.

Make couplings at a speed of not more than 4 MPH. Stretch the slack to ensure that all couplings are made.

## 7.5 Testing Hand Brakes

Employees must know how to operate the type of brakes they are using. When hand brakes must control or prevent car or on-track equipment movement, test the brakes to ensure that they are operating properly before using them.

## 7.6 Securing Cars or On-Track Equipment

Do not depend on air brakes to hold cars or on-track equipment in place when left unattended. Ensure that equipment left unattended is properly secured and that sufficient hand brakes are applied to prevent movement. If hand brakes are not adequate, block the wheels.

Do not release the hand brakes until the air brake system is fully charged.

When cars or on-track equipment are moved from any track, apply enough hand brakes to prevent any remaining cars from moving.

## 7.7 Kicking, Dropping or Gravity Movements of Cars

When positioning cars, do not:

- Uncouple cars from moving self-propelled equipment
- Permit cars to move under their own momentum by releasing brakes or uncoupling the cars from other equipment.

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## 7.8 Coupling or Moving Cars on Tracks Where Cars are Being Loaded or Unloaded

Before coupling to or moving cars on tracks where cars are being loaded or unloaded, employees must be sure that all of the following have been removed or cleared:

- Persons in, on, or about cars.
- Platforms.
- Boards.
- Tank car couplings and connections.
- Conveyors.
- Loading or unloading spouts and similar appliances or connections.
- Vehicles.
- Other obstructions.

In addition:

- Be careful to avoid damage to freight of partly loaded cars.
- Do not handle cars that are improperly or unevenly loaded if load could shift or fall from the car, or if the car could derail or overturn.
- Return any car placed for loading or unloading to the location it was found if it has not been released for movement.
- Do not pull empty cars from an unloading facility until any major accumulation of debris is removed.
- Ensure plug-type and swinging doors on cars are properly closed or secured.

## 7.10 Movement Through Gates or Doorways

Before moving cars or on-track equipment through gates, doorways, or similar openings, stop to ensure that the gates, doorways, or openings are completely open and secure. When overhead or side clearances are close, make sure movement is safe.

## 7.11 Charging Necessary Air Brakes

Do not handle cars without charging the air brake system, unless the cars can be handled safely and stopped within the required distance. If necessary, couple the air hoses and charge the brake systems on a sufficient number of cars to control movement.

## 7.12 Movements Into Spur Tracks

When shoving cars into a spur track, control movement to prevent damage at the end of the track, and do the following:

- Stop movement 150 feet from the end of the track.
- Apply hand brakes, when necessary, to control slack.
- Have an employee precede any further movement when it can be done safely.
- Move only on the employee's signal.

# 8.0 Switches

## 8.1 Hand Operation of Switches

Spring or dual control switches operated by hand are considered hand operated switches, and all rules governing hand operated switches apply.

## 8.2 Position of Switches

The employee operating the switch or derail is responsible for the position of the switch or derail in use. Movement must not foul an adjacent track until the hand operated switch or derail is properly lined.

Do not operate switch that is tagged. If the switch is spiked, do not remove the spike unless authorized by the same craft or group that placed it.

Employees operating switches and derails must make sure:

- The switches and derails are properly lined for the intended route
- The points fit properly and the target, if so equipped, corresponds with the switch's position
- When the operating lever is equipped with a latch, they do not step on the latch to release the lever except when operating the switch
- After locking a switch or derail, they test the lock to ensure it is secured
- The switch or derail is not operated while equipment is fouling, standing on, or moving over the switch or derail
- When moving over a switch, the switch remains lined for the movement until the equipment has moved beyond the fouling point of the adjacent track.

When practical, employees must see that the switches and derails near on-track equipment are lined properly.

Except in CTC territory or within a manual interlocking, the employee in charge must complete the form entitled Position of Switches/Derails when any of the following are hand operated:

- Main Track switch
- Main Track switch point lock
- Derail protecting access to a Main Track.

When required, record the following information on the form:

- Name and location of the switch, switch point lock or derail operated
- Time the switch, switch point lock or derail is initially operated
- Time the switch, switch point lock or derail is finally restored to the correct position.

This record must be retained for 2 days after the tour of duty.

In non-signaled TWC or Double Track ABS Territory, when a Main Track switch is operated for any reason, on track equipment shall:

- Stop short of switch until activity is completed when possible.
- When activity is completed, if authority allows, make a facing point movement over the switch to ensure switch is lined properly for the Main Track.
- If authority does not allow for a facing point movement over the switch, make a walking inspection of the switch points to ensure proper fit and route.

When a Main Track switch is operated for any reason and on-track equipment is not being used in non-signaled TWC or Double Track ABS Territory, a walking inspection of the switch points must be made to ensure proper fit and route.

## 8.3 Main Track Switches

The normal position of a Main Track switch is for Main Track movement, and it must be lined and locked in that position. At points where double track begins, the normal position of a spring switch is for movement with the current of traffic.

However, the Main Track switch may be left open:

- Within Restricted Limits, as outlined in Rule 6.19.1 (Protection in Restricted Limits by Lining Switch).
- Within ABS limits, as outlined in Rule 6.19.5 (Protection in ABS by Lining Switch).
- When temporarily lined for immediate movement.

  or

- Within TWC territory, when authorized by track warrant. Track warrant protection must be provided for this condition. The switch must not be considered restored to normal position until the train dispatcher is notified by an employee at that location.

On Main Track switches (if equipped), the target will be red and perpendicular to the track if the switch is lined in other than its normal position.

Before reporting clear of a track warrant, track and time or track permit, Main Track switches must be lined and secured in the normal position.

Do not open hand operated Main Track switches, except as instructed by the employee in charge. The employee in charge should avoid transferring authority or responsibility to hand operate Main Track switches whenever possible. When it is necessary to transfer such authority or responsibility, the employee in charge must ensure that the switch is lined and secured in normal position before releasing Main Track authority.

The position of the switch must be determined by the employee in charge by making a visual inspection or by communicating with the employee operating the switch. When communicating the position of the switch, the information must be acknowledged and repeated by the employee in charge.

An employee restoring a hand operated Main Track switch to the normal position must remain at the switch location (in view of the switch) until the switch position briefing has been conducted with the employee in charge.

Employees who operate Main Track switches using Visual Detection of Trains must observe the position of the switch and ensure that the switch is lined and secured in the normal position before leaving the area.

## 8.5 Clearing Main Track Before Restoring Switch

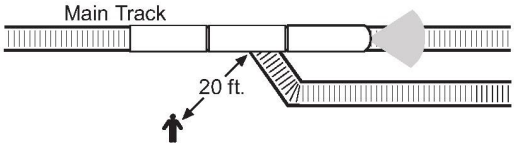
Do not return a Main Track switch to the normal position until movement is clear of the Main Track.

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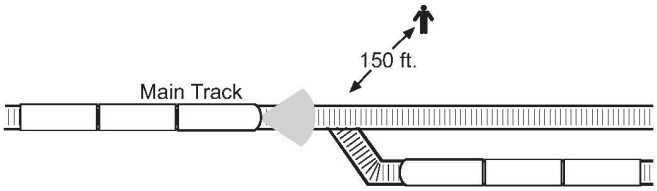
## 8.7 Clear of Main Track Switches

Except in switching movements, when a train, engine, or on-track equipment is approaching or passing on a Main Track, employees must not go nearer than 20 feet to any Main Track switch.




*[Diagram A.]*

When a train, engine or on-track equipment that will be met or passed is on a siding or other track, the employee attending the switch must not be nearer than 150 feet to the switch when the train is closely approaching.




*[Diagram B.]*

## 8.8 Switches Equipped with Locks, Hooks, or Latches

When not in use, switches must be locked, hooked, or latched if so equipped. Before making movements in either direction over these switches, make sure that the switch is latched or secured by placing the lock or hook in the hasp. However, when making train movements in facing point direction, lock the switches equipped with a lock.

Replace any missing or defective switch locks. If they cannot be replaced, report the condition at once to the train dispatcher, yardmaster, or supervisor in charge, and spike the switch if possible.

## 8.9 Movement Over Spring Switches

Spring switches are identified by the letters S or SS, special targets, signs, and/or lights.

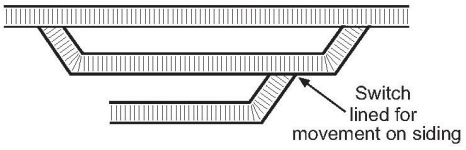
A spring switch that is spiked must be protected.

## 8.10 Switch Point Indicator

| Aspect | Indication |
|---|---|
| Green..... | Switch points fit properly in normal position. |
| Yellow..... | Switch points fit properly in reverse position. |
| Red or Dark..... | Stop and inspect switch. |

## 8.11 Switches in Sidings

The normal position of switches connecting any track, except the Main Track, to a siding is lined and locked or secured for movement on the siding.




*[Diagram A.]*

## 8.12 Hand Operated Crossover Switches

The normal position of crossover switches is for other than crossover movement. The crossover switches must be left lined in normal position, except when they are in use for crossover movements. Both switches of a crossover shall be properly lined before equipment begins a crossover movement. A crossover movement shall be completed before either switch is restored to normal position, except when one crew is using both tracks connected by the crossover during continuous switching operations.

Where Rule 6.28 (Movement on Other than Main Track) governs or when utilizing Rule 6.19.1 (Protection in Restricted Limits or Non-Signaled Yard Limits by Lining Switch), crossover switches may be left out of correspondence while providing blue signal or inaccessible track protection. When protection is no longer required the crossover switches connected to a Main Track or siding must be left lined for other than crossover movement. Crossover switches not connected to a Main Track or siding must be left in a corresponding position.

In signaled territory, crossover switches may be out of correspondence while performing maintenance, testing or inspection.

### 8.12.1 Independently Controlled Switches (ICS)

Independently Controlled Switches are dual control switches of a crossover which, under certain conditions prescribed by the rules, may be operated independently. At locations identified in the timetable as having ICS, MW employees may request control operator permission to operate one end of a crossover for maintenance or testing purposes only.

When MT authority includes only one end of a crossover identified as ICS in the timetable, MW employees must not permit trains, engines and on-track equipment to occupy that crossover (including the points of the switch when lined for crossover movement).

Notify the control operator when a hand operated ICS has been returned to power.

## 8.13 Scale Track Switches

When scales are not in use, line switches for dead rails where provided.

## 8.14 Conflicting Movements Approaching Switch

When conflicting movement is closely approaching a switch, the track must not be fouled or the switch operated.

Crossover switches, other than independently controlled switches with control operator's permission, must not be unlocked or lined for crossover movement when another movement is approaching or passing over either switch.

Exception:

Signal department employees may independently perform FRA signal switch tests for non-ICS equipped crossover switches upgraded per Signal Instruction Manual, part TP-103C, on the dual control switch of the crossover not affected by approaching movements.

When utilizing this procedure, complete the following job safety briefings with the control operator.

1. After receiving track authority for the switch and before applying a jumper/plug coupler:
   - Request switch blocks on both crossover switches and identify the specific switch where the jumper/plug coupler will be applied.
   - Receive confirmation the switch blocks have been applied.
2. After the jumper/plug coupler has been removed:
   - Advise the control operator the jumper/plug coupler has been removed.
   - Receive confirmation of understanding the jumper/plug coupler has been removed.

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## 8.16 Damaged or Defective Switches

Report a switch that is damaged or defective to the train dispatcher, yardmaster, or supervisor in charge.

When necessary spike or clamp the switch and properly tag the switch. If the switch cannot be made safe provide protection at once.

## 8.18 Variable Switches

On-track equipment must not trail through a variable switch unless the switch is lined for such movement.

## 8.19 Automatic Switches

The location of automatic switches will be designated in the timetable. Unless the switch is in normal position when operating on a Main Track, employee must stop and hand operate the automatic switches before moving over them.

To operate an automatic switch by hand, do the following:

- Unlock the switch lock.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until the entire movement has passed over the switch.

When the switch is in the POWER position, the switch will automatically return to its normal position.

When on-track equipment is operating on a siding, the equipment must be stopped before it fouls an adjacent track or passes an overlap sign, if equipped, and automatic switch must be hand operated. The switch must not be returned to POWER position until all on-track equipment has passed over the switch.

When automatic switches are operated by hand, all rules governing hand operated switches apply.

## 8.20 Derail Location and Position

Employees must know the location of all fixed derails.

Do not make a movement over a derail in derailing position.

Sidings having hand thrown derails will have derail locked in the non-derailing position, except when engines or cars are left unattended on siding. On auxiliary tracks other than siding, except when derails are placed in non-derailing position to permit movement, make sure they are always in derailing position regardless of whether cars are on the track they are protecting. Lock all derails equipped with a lock.

Derails dedicated for use in conjunction with Rule 5.12 (Protection of Occupied Outfit Cars), Rule 5.13 (Blue Signal Protection of Workman), and roadway worker protection must be in the derailing position only when their use is required for such protection. When their use is not required for their protection:

- Remove portable derails

  or

- Lock fixed derails in non-derailing position with an effective locking device.

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# 9.0 Block System Rules

## 9.5 Track or Signal Appliances Damaged or Under Repair

### 9.5.2 Protection If Signal Appliance or Track is Damaged

If a signal or signal appliance functions improperly or the track is damaged, signals that govern movements on affected routes must display a Stop indication. No movements on such routes may be permitted until track and signal appliances are examined and movement can occur safely.

### 9.5.3 Protection During Repairs

Within CTC limits or within manual interlocking limits (unless track bulletin Form B is in effect), when a switch, movable point frog, derail, or signal is under repair or is disconnected, or when the track is obstructed or removed from service, display Stop indications for all affected routes. In addition, block or mark any controls to prevent their operation.

Maintenance forces must contact the control operator before beginning repairs, disconnecting equipment, obstructing the track, or removing the track from service. Switches, movable point frogs, and derails must be spiked or secured in the required position if any movement over them occurs before repairs are complete.

## 9.13 When Instructed to Operate Dual Control Switches by Hand

If the control operator cannot line the dual control switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the control operator must instruct the employee to operate the switch by hand.

Before passing over the switch, the movement must stop and the employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches). After the entire movement has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator.

### 9.13.1 Hand Operation of Dual Control Switches

An employee must get permission from the control operator to operate a dual control switch by hand. Operate the switch as follows:

- Unlock the switch lock.
- Place the selector lever in the HAND position or remove the hand crank from the holder.
- Operate the hand throw lever until the switch points are seen to move when the lever is operated, even if the switch is lined for the intended route.
- Line the switch for the intended route, or insert the crank on the shaft and turn the crank as far as it will turn until the switch is in the desired position. Remove the crank from the shaft, but do not return it to the crank holder.
- Return the switch to power by restoring the selector lever to the POWER or MOTOR position and lock. Or, return the crank to the holder and secure it with the switch lock. Notify the control operator after power to the switch is restored.

## 9.14 Movement with the Current of Traffic

On tracks designated in the timetable, trains will run with the current of traffic, if the train dispatcher gives verbal authorization or a controlled signal indicates proceed.

## 9.15 Track Permits

On tracks designated in the timetable, a track permit will authorize a train, on-track equipment, or employee to occupy the Main Track or tracks between specific points. The track permit must be issued by a designated control operator under the direction of the train dispatcher. Within these limits, movements may be made in either direction without flag protection.

Limits designated by a switch extend only to the signal governing movement over the switch unless otherwise designated.

### 9.15.1 Issuing Track Permits

The track permit may only be issued when:

- Limits are clear.
- Limits are occupied by the train, on-track equipment or employee that will receive the track permit.
- Limits are occupied by a train, on-track equipment or employee holding a track permit.

  or

- All trains moving on signal indication without a track permit have passed the location where the track will be fouled.

The track permit limits must be protected by controlled signals. The designated control operator must know the following before issuing a track permit:

- Each controlled signal protecting the limits displays a Stop indication.
- Marking or blocking devices prevent displaying signals for movement into the limits.
- The designated control operator and each control operator who controls signals to protect the limits understand the limits, have provided protection, and have recorded the track permit on the prescribed form.

**Track Permit Wording**

The employee requesting a track permit will state his or her name, occupation and location.

Track permits will be granted in the words, “Track permit authority (number), granted on (track), between (point) and (point), (time) until (time).”

The employee requesting a track permit must repeat the permit and receive acknowledgment before acting upon it.

Track permit authority must be recorded on and repeated from form provided for that purpose.

**More than One Track Permit**

If more than one track permit is in effect at any time within the same limits, all affected trains or employees must be notified.

Trains must move at restricted speed within these limits.

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### 9.15.2 Clearing Track Permits

Marking or blocking devices must not be removed until the track permit has been released to the control operator. Other movements must not be authorized into the limits unless also granted a track permit.

Employees reporting clear of track permit authority must state:

- Their name or other identification.
- Track permit number being released.
- Limits being released.
- Position of hand operated Main Track switches.

## 9.18 Electrically Locked Switches and Derails

Special instructions or instructions posted near the switch will govern the operation of switches and derails equipped with electric locks.

Do not open the case door or unlock an electrically locked switch or derail within manual interlocking or CTC limits without:

- Authority on the track to which the switch or derail provides direct access,

  or

- Permission from the control operator or train dispatcher.

**Emergency Release**

If the electric lock includes an emergency release, do not break the seal on the release or operate the release without permission from the control operator or train dispatcher. However, when communication has failed, the seal may be broken and/or the release operated:

- To permit a train or on-track equipment to leave the Main Track.

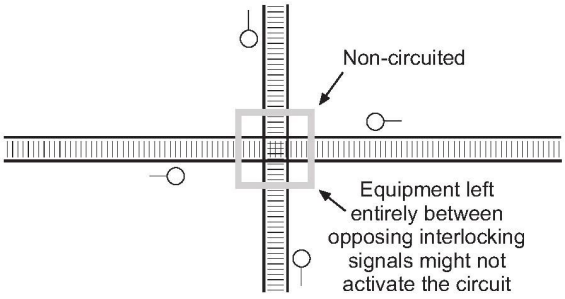
  or

- To permit a train or on-track equipment that has authority to enter the Main Track. Train or on-track equipment must not enter the Main Track until 5 minutes after the seal is broken and/or the release operated.

Notify the control operator or train dispatcher when the seal has been broken and/or the emergency release operated.

## 9.19 Leaving Equipment in Interlockings

Engines, cars, or on-track equipment must not be detached and left standing entirely between the opposing interlocking signals that govern movements at a railroad crossing at grade.



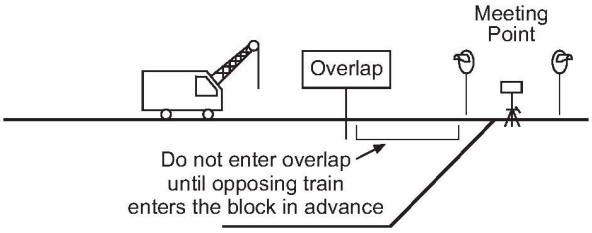

*[Diagram A.]*

## 9.20 Clear Track Circuits

A train, engine, car, or on-track equipment left standing on sidings or other tracks must be clear of insulated joints at clearance points.

## 9.21 Overlap Circuits

Overlaps may be identified by overlap signs. On-track equipment on the Main Track at a meeting point must not pass an overlap sign location or open a switch within the overlap until the opposing train has entered the block.



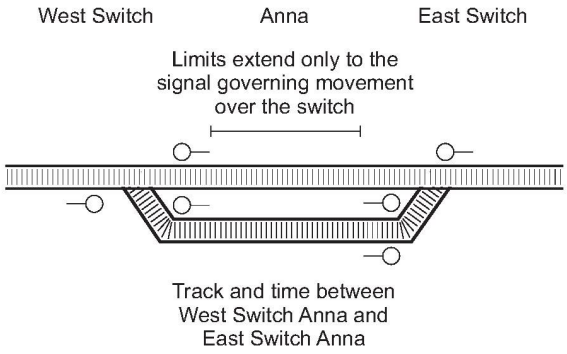

*[Diagram A.]*

# 10.0 Rules Applicable Only in Centralized Traffic Control (CTC)

## 10.3 Track and Time

The control operator may authorize men and equipment to occupy a track or tracks within specified limits for a certain time period. Authority must include track designation, track limits, and time limit. Men and equipment may use the track in either direction within the specified limits, until the limits are reported clear.

Limits designated by a switch extend only to the absolute signal governing movement over the switch unless otherwise designated.




*[Diagram A.]*

**Track and time does not authorize maintenance of way employees and on-track equipment to occupy or foul the Main Track within automatic interlocking limits.**

**Requesting Track and Time**

An employee requesting track and time must provide:

- Employee's name
- Occupation
- Location

When the requested limits are entirely within a control point, or include a control point at either end of the limits, advise the control operator whether or not any equipment or work activity will shunt the track within the control points.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing the authority, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator "That is correct," the employee must not occupy or foul the track. The employee requesting track and time must contact the control operator as soon as possible and inform the control operator that the track and time was not received.

**Reporting Clear of Track and Time**

An employee reporting clear of track and time must provide:
- Employee's name and the name of the employee the authority was issued to if different
- Track and Time number
- Authority limits

### 10.3.2 Protection of Men and Equipment Following a Train

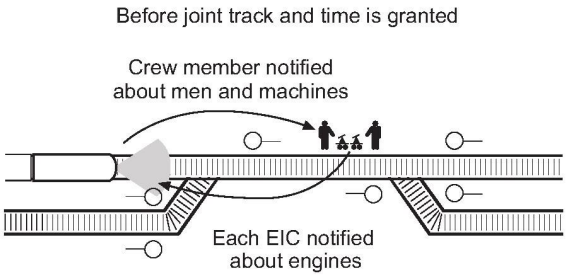
Employees may be issued track and time limits to follow a train or trains that have not been granted track and time as follows:

"Behind (train)."

### 10.3.3 Joint Track and Time

Before track and time is granted for on-track equipment or employees in the same limits with a train, each employee in charge and a crew member of each train must be notified of each other.

Trains must move at restricted speed within joint track and time limits.




*[Diagram A.]*

When track and time is granted to protect maintenance or repair work, trains must not be allowed into the working limits unless the trains and EIC of the work understand the conditions and movements that will be made.

If a track is not safe for trains to move at a speed of at least 20 MPH, employees must protect the track with red flags as outlined in Rule 5.4.7 (Display of Red Flag).

### 10.3.4 Record Track and Time

When receiving track and time verbally, the employee will copy the authority granted on the form provided for this purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with “That is correct.”

When receiving track and time using a railroad supplied electronic device designed to request, receive, release or report clear of authority (e.g. Smart Mobile Client) a viewable electronic form of the authority granted is displayed by the device. Employees must use the electronic form to confirm authority limits.

Note: The electronic device graphical display of territory is not to be used for confirmation of authority limits.

### 10.3.5 Using Track and Time Authority

Except as provided in Rule 10.3.3 (Joint Track and Time) track and time authority may be granted to an employee only after all trains moving within the limits have passed the location where the track is to be first occupied.

When using track and time authority, know the following:

- When the limits are designated by a control point and the authority includes “SWITCH NO,” the limits extend only to the signal governing movement through the control point. However, when the track and time authority includes “SWITCH YES,” the limits will include that switch or switches.
- When the limits are designated by a switch, the limits extend only to the signal governing movement over the switch.

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# 11.0 On-Track Safety

## 11.1 On-Track Safety Program

The purpose of this section is to prevent accidents and injuries that result from engines, locomotives, and on-track equipment striking roadway workers and machines. The BNSF MWOR serves as the BNSF On-Track Safety Manual.

In addition to on-track safety information found in this chapter, refer to chapters 6 and 12 for information specific to methods of establishing on-track safety, including visual detection of trains (Lone Workers and Lookouts).

BNSF uses operations testing, described in the Operations Testing Reference Guide and Supplements, to monitor compliance with the on-track safety manual.

On-track safety training is required each calendar year for all Roadway Workers.

Employees must be MWOR qualified before performing duties as an:

- Employee in charge
- Lone worker
- Lookout
- Flagman
- Escort
- Independent machine operator
- Subgroup coordinator working with large-scale maintenance and construction crews

MWOR qualified employees must requalify each calendar year.

## 11.2 Requirements for Operating Roadway Machines

**General Requirements**

Before operating a roadway machine:

- Receive training according to MWOR 11.1
- Be informed of the safety procedures that apply to persons working near your machine
- Inform the employee in charge that you fully understand the safety procedures

**Machine-Specific Requirements**

Follow these machine-specific requirements:

- Keep the operator's manual with the machine if the machine is large enough to carry the manual.
- Be familiar with the information in the operator's manual before you operate the machine.
- Follow the manual's instructions for safe operation.

**Qualification Requirements**

To be qualified to operate a roadway machine, you must be trained and certified as competent to operate that machine. This training may be accomplished through:

- Peer instruction on the job

  or

- A combination of classroom training and peer training.

A new machine operator or a relief machine operator who has not operated the type of equipment to which he or she will be assigned within the past year must be certified competent by a Work Equipment Supervisor or Roadmaster before operating the machine, except during supervised training.

After a new or relief operator receives approval to begin operating the machine, the certifying individual will observe the operator to ensure that he or she is competent to operate the machine.

## 11.3 Fouling the Track

Fouling the track means the placement of an individual or an item of equipment, including material being handled by equipment, in such proximity to a track that the individual, equipment or material handled by equipment could be struck by a moving train or on-track equipment, or in any case is within four feet of the nearest rail.

Each roadway worker is responsible for determining that on-track safety is provided before fouling any track, except when fouling the track is incidental to the performance of duties.

**Incidental Fouling**

When a roadway worker fouls a track incidental to the performance of duties, such as when walking across or adjacent to a track on which authority or protection has not been provided, each worker must:

1. Assume individual responsibility to make the move safely.
2. Foul the track only after determining that it is safe to do so.
3. Not carry tools or material that restrict motion, sight, hearing or prevent rapid movement away from an approaching train or other on-track equipment while being carried.
4. Move directly and promptly to a position clear of the track.

## 11.4 Job Safety Briefings

Conduct a job safety briefing before any roadway worker or equipment fouls a track. A job safety briefing is not complete until each roadway worker is verbally informed of the method of on-track safety that will be applied and the procedures that will be followed. A job safety briefing may not be conducted via text or electronic messaging.

**Roadway Work Groups**

In the job safety briefing, discuss information related to on-track safety with roadway workers who will foul the track.

In addition to other safety issues, minimum on-track safety information must include:

- Designation of the employee in charge
- Method of on-track safety being applied
- Track limits and time limits of authority
- A risk assessment to identify any track that could be fouled
- Determination of any adjacent tracks
- Determination of any adjacent controlled tracks

- Operational controls of movements on adjacent tracks, if any
- Procedure to arrange for on-track safety on adjacent tracks, if necessary
- Means of providing a warning when a lookout is used
- Designated place of safety where roadway workers will clear for trains, which may be between the rails on a track within established working limits and during which time no movements are permitted by the EIC
- Identification of any roadway maintenance machines in the work group that will foul the track
- Designated work zones around machines
- Safe working and traveling distances between machines
- Nature of the work to be performed and the characteristics of the work location

Conduct follow-up job safety briefings:

- When the working conditions or procedures change,
- When the method of on-track safety is changed, extended, or about to be released,
- To designate a substitute employee in charge before the employee in charge becomes inaccessible and unable to communicate with their work group (e.g., departs work site for an extended period.)

**Lone Workers**

At the beginning of each shift, each lone worker must participate in a job safety briefing with his or her supervisor or other designated employee. The job safety briefing will include the lone worker's planned itinerary and the procedures that will be applied to establish on-track safety.

Lone workers who cannot contact their supervisor or designated employee must verify the method of on-track safety with:

The train dispatcher, if communication with the dispatcher is necessary to establish on-track safety (Track and Time, Track Warrant, Track Permit, Track Bulletin Form B).

or

One of the following, if communication with the train dispatcher is not necessary to establish on-track safety (inaccessible track, individual train detection):

- For signal employees, the Signal Call Center Desk
- For telecommunications employees, the Telecommunications Network Operations Center
- For all other employees, the Network Operations Center (NOC) Maintenance Desk

When all communication channels are disabled, conduct the job safety briefing as soon as possible after communications are restored.

## 11.5 On-Track Safety Procedures in Effect

Management and individual roadway workers share the responsibility for ensuring that proper on-track safety procedures are followed when workers are fouling track.

**Responsibilities of Management**

BNSF management must:

- Provide initial and recurring on-track safety training to all roadway workers once each calendar year.
- Guarantee each employee the right to challenge in good faith whether the on-track safety procedures to be applied at that work location comply with the MWOR.
- Follow the procedure outlined in MWOR 11.6 to promptly and fairly resolve challenges to on-track safety procedures.

### Responsibilities of Individual Roadway Workers

Individual roadway workers must:

- Follow BNSF's on-track safety rules and procedures.
- Avoid fouling a track except when necessary to perform their duties.
- Wear enhanced visibility workwear when on or near the track as prescribed in the MW Safety Rule book.
- Determine that on-track safety is being provided before fouling a track.
- Refuse any directive to violate an on-track safety rule.
- Notify the employee in charge when making a good faith determination that on-track safety procedures to be applied at the work location do not comply with the MWOR.

## 11.6 Empowerment and Good Faith Challenge Processes

### Empowerment

All employees are empowered and required to refuse to violate any rule within these rules. They must inform the employee in charge if they believe that a rule will be violated. This must be done before the work begins.

### Resolving Challenges to On-Track Safety Procedures

All roadway workers are guaranteed the right to challenge in good faith whether the on-track safety procedures applied at their work location comply with the MWOR and to remain clear of the track until resolved.

When making a challenge in good faith, inform the employee in charge before the on-track safety rules are misapplied, if possible. Otherwise, inform the employee in charge before fouling the track.

A challenge is resolved as follows:

1. The challenging individual informs the employee in charge that he or she does not believe the method of on-track safety at the work location complies with the MWOR.

   Note: Individuals will not be subject to retribution or punishment for making a challenge in good faith.

2. The employee in charge reviews the on-track safety procedures with the challenging individual to determine if proper procedures have been or will be applied.

3. If the challenging individual is still not convinced that the on-track safety procedures comply with the MWOR, the employee in charge contacts the next level Supervisor. The Supervisor reviews the on-track safety procedures and determines if the procedures are being properly applied.

4. After that review, if the challenging individual still is not convinced that the on-track safety procedures comply with the MWOR, the employee in charge and the next level Supervisor contact the General Director Rules in Fort Worth, Texas or a designee. The person contacted reviews the on-track safety procedures and determines if the procedures are being applied properly.

   - If the determination is that the on-track safety procedures are not being applied properly, the employee in charge modifies the procedures as required.

     or

   - If the determination is that the on-track safety procedures are being applied properly, the challenge is considered resolved, and the employee in charge will instruct the challenging individual to perform his or her assigned duties.

     Note: Challenges that progress to the next level Supervisor are documented by that Supervisor. The section head of the work group reviews this documentation within 1 month of the challenge. A union representative is invited to participate in this review.

**Resolving Challenges Related to Shoving Movements, Leaving Equipment Foul of an Adjacent Track, or Handling of Hand Operated Switches or Fixed Derails**

A. Right to Challenge

Federal Regulations have provisions that allow an employee the right to challenge a directive which, based upon the employee's good faith determination, would violate a railroad operating rule relating to:

- Shoving movements.
- Leaving equipment foul of an adjacent track.

or

- Handling of hand operated switches or fixed derails.

B. Good Faith Challenge Procedure

1. An employee may inform a supervisor issuing a directive that a good faith determination has been made that the directive would violate a railroad operating rule relating to:
   - Shoving movements.
   - Leaving equipment foul of an adjacent track.

     or
   - Handling of hand operated switches or fixed derails.
2. The supervisor will not require the employee to comply with the directive until the challenge is resolved. The supervisor may:
   - Require the challenging employee to perform other tasks not related to the challenge until the challenge is resolved.

     or
   - Direct an employee, other than the challenging employee, to perform the challenged task before the challenge is resolved. Employee so directed will be informed of the challenge, and determine that the challenged task does not violate the rules.

C. Resolving Good Faith Challenge

1. A challenge may be resolved by one of the following:
   - The supervisor's acceptance of the employee's request.
   - An employee's acceptance of the directive.
   - An employee's agreement to a compromise solution acceptable to the person issuing the directive.
2. If the challenge cannot be resolved because the supervisor issuing the directive has determined that the employee's challenge has not been made in good faith or there is no alternative to the direct order, the railroad will:
   - Provide immediate review by at least one manager, which must not be conducted by the supervisor issuing the challenged directive or that supervisor's subordinate.
   - Resolve the challenge using the same options available for resolving the challenge as the initial supervisor.

3. If the manager making the final decision concludes that the challenged directive would not cause the employee to violate any requirement of the involved rules, the reviewing manager's decision shall be final and not subject to further immediate review.

   - The manager will inform the employee that Federal law may protect the employee from retaliation, if the employee's refusal to do the work is a lawful, good faith act.
   - The employee making the challenge will be afforded an opportunity to document, in writing or electronically, any protest to the manager making the final decision before the employee's tour of duty is complete. The employee will be afforded the opportunity to retain a copy of the protest.

D. Request for Review and Verification of Decision

Upon written request, at the time of the challenge, the employee has the right for further review by the "Designated Review Manager". Within 30 days after the expiration of the month during which the challenge occurred, the "Designated Review Manager" will verify the proper application of the rule in question. The verification decision shall be made in writing to the employee.

E. Employee Rights and Remedies

The Good Faith Challenge is not intended to abridge any rights or remedies available to the employee under a collective bargaining agreement or any Federal law.

# 12.0 Adjacent Track Operations

## 12.1 Occupying Space between Adjacent Tracks

When a train is passing on an adjacent controlled track, roadway workers on the ground must not occupy the space between those tracks.

### 12.1.1 Adjacent Tracks

Before fouling a track where there is an adjacent track subject to train or on-track equipment movement, review this rule as part of the job safety briefing.

When working on a track, establish on-track safety as necessary to protect against trains and on-track equipment passing on an adjacent track.

To determine if authority or protection is required on adjacent tracks, the employee in charge must consider factors such as:

- Any track that could be fouled
- Adjacent controlled tracks
- Roadway workers on the ground
- On-track equipment that will occupy the track
- Right-of-way conditions involved in reaching the designated place of safety
- Curvature of the track
- Sight distance
- Speed of passing trains or on-track equipment
- Spacing of roadway workers and equipment in the work group
- Background noise
- Risk of distraction
- Designated place of safety, which may be between the rails on a track within established working limits and during which time no movements are permitted by the EIC.

### 12.1.2 Fouling Adjacent Tracks

Do not foul adjacent tracks with roadway maintenance machines unless working limits have been established on the adjacent track. Before operating equipment where an adjacent track could be fouled by the equipment, including any component of the equipment or material handled by the equipment, working limits must be established on the adjacent track. Movements within the adjacent track working limits may only be permitted by the EIC.

Do not use a lookout to provide protection for equipment or material fouling an adjacent track.

### 12.1.3 On-Track Equipment

While performing machine maintenance or operating on-track equipment, operators will place standard signs reading “Danger - Live Track” across the entrance/exit on the adjacent track side of their machines if so equipped. Otherwise, another physical restraint must be placed to restrict access to that point. When the equipment is designed to enter/exit from either side, the employee in charge must instruct all personnel to use the field side when:

- Getting on or off the equipment
- Transferring tools or material
- Conversing with the occupants of the equipment

Where there are adjacent tracks on both sides of the equipment, the employee in charge must designate in the job safety briefing which side to use.

When equipment or material will foul the adjacent track, establish working limits on that adjacent track to prevent unannounced movement past the work area. Establish the working limits on a Main Track, controlled siding or other track where CTC is in effect using a Track Bulletin Form B when details of the project are known well enough in advance to meet the established timelines for requesting the Form B.

On-track equipment may be operated while a train is passing on an adjacent track if the equipment, while operating, will not foul the adjacent track. However, do not perform maintenance with on-track equipment while a train is passing on an adjacent controlled track except as provided by MWOR 12.2 or 12.3. When the conditions cannot be met:

- Stop the equipment.
- Secure the equipment against movement.
- Inspect the passing train.

## 12.2 Adjacent Controlled Track Protection

One or more roadway workers of a work group on the ground engaged in a common task with on-track, self-propelled equipment (excluding hi-rails or other self-propelled on-track equipment, not coupled to cars, used for inspection or correctional repair purposes) or coupled equipment must be protected from adjacent controlled track movements by:

1. Working limits established on the adjacent controlled track

   or

2. A lookout.

Work on a track must cease and roadway workers on the ground must move to a designated place of safety while a train or on-track equipment is passing on an adjacent controlled track unless working limits are established on the adjacent controlled track, and the EIC of the working limits instructs:

- Trains passing on the adjacent controlled track consisting entirely of passenger equipment not to exceed 40 MPH while passing the work location, or
- All other trains or on-track equipment moving on the adjacent controlled track not to exceed 25 MPH while passing the work location.

After the EIC permits a movement within working limits established on an adjacent controlled track, employees fouling the adjacent controlled track or working between the tracks must move to a designated place of safety. When conditions can be met, a lookout may be used to permit employees to continue to work fouling the adjacent controlled track or between the tracks until warning is received from the lookout.

While on the ground, no part of a roadway worker's body may extend beyond the rail of the occupied track nearest the movement on the adjacent controlled track while a train or on-track equipment is passing on an adjacent controlled track.

When roadway workers on the ground are required to cease work, the designated place of safety may be:

- Between the rails on a track within established working limits and during which time no movements are permitted by the EIC.
- The side of the occupied track opposite an adjacent controlled track.

### 12.2.1 Exceptions to Adjacent Controlled Track Protection

Adjacent controlled track protection is not required when all roadway workers of the work group on the ground are exclusively positioned on the side of the track where there is:

- No adjacent track
- One or more adjacent tracks, the closest of which has working limits established, and no movements are permitted within the working limits by the EIC
- An inter-track barrier separating roadway workers from the adjacent track

Adjacent controlled track protection is not required for one or more roadway workers on the ground when:

- Engaged in a common task with a hi-rail vehicle or other self-propelled on-track equipment, not coupled to rail cars, being used for inspection or correctional repairs. When multiple hi-rail vehicles or other self-propelled on-track equipment are being used for inspection or correctional repairs, the EIC must determine if adjacent controlled track protection is necessary.
- Performing machine maintenance or repairs on the side of machines that would effectively prevent the worker from fouling the adjacent controlled track.
- Performing machine maintenance or repairs to a machine within the perimeter of the machine and no part of the worker's body extends beyond the rail of the occupied track nearest the adjacent controlled track. A boom or other equipment extending beyond the body of a roadway maintenance machine or coupled equipment toward an adjacent controlled track is not considered to be within the perimeter of the machine or coupled equipment.

## 12.3 Performing Track Maintenance with Equipment

Production rail grinders or rail detectors may operate while a train or on-track equipment is passing on an adjacent controlled track.

Track maintenance may be performed with other on-track equipment as specified in Engineering Instructions for Roadway Equipment while a train or on-track equipment is passing on an adjacent controlled track when:

- Working limits are in effect on the adjacent controlled track, and
- The employee in charge of the working limits has instructed the passing train or on-track equipment to pass men and equipment at:
  - 25 MPH or less, or
  - 40 MPH or less for passenger trains.

Use a track bulletin Form B to establish working limits on adjacent controlled tracks when details of the project are known enough in advance to meet the established timelines for requesting the Form B.

When three or more adjacent controlled tracks are in service, and if the on-track equipment occupies a middle track, cease work when movement is passing on both adjacent controlled tracks at the same time.

**Roadway Workers on the Ground While Train or On-Track Equipment is Passing**

When a train or on-track equipment is passing on an adjacent controlled track and machines continue to work, no roadway worker may occupy the space within 25 feet on either end of a machine performing mainenance.

Exception - When machines are secured to prevent movement (i.e., locomotive crane driving piling) workers on the ground between the rails are permitted less than 25 feet from the machine when duties require as determined in the Job Safety Briefing.

# 12.4 Work is at Multiple Locations Over an Extended Distance

When a work group is working at multiple locations over an extended distance the employee in charge divides the workers into subgroups, each with a designated MWOR qualified individual who acts as a coordinator for that subgroup.

**EIC Notifies Subgroup Coordinators**

Before permitting a movement to enter working limits the employee in charge notifies the subgroup coordinators when a train or on-track equipment is approaching on an adjacent controlled track.

**Coordinator Warning Method**

- Identify the warning method in the job safety briefing. If the subgroup coordinator is not in a position to physically or verbally warn subgroup members use another method to ensure all subgroup members have been notified of the approaching train or on-track equipment.
- Use a distinctive, clear and unquestionable warning.
- Make sure that workers can detect the warning regardless of noise or work distractions.
- Do not require workers to look in a particular direction to receive warning.

**Coordinator's Warning of Approaching Train or On-Track Equipment**

1. Warn members of the subgroup as identified in the job safety briefing.
2. Ensure that all members of the subgroup have acknowledged an understanding that a train or on-track equipment is approaching.
3. Make immediate corrections when members of the subgroup are operating equipment that will foul the adjacent controlled track or are on the ground between the tracks with no provision for a lookout.
4. Notify employee in charge when all members of the subgroup are alerted.
5. Serve as a lookout for any members of the subgroup continuing to work on the ground between the tracks.

**Employee in Charge Permits Movement on Adjacent Controlled Track**

To allow work to continue, the employee in charge may permit a train or on-track equipment to pass on an adjacent track as follows:

- Use the subgroup coordinator form to positively confirm that all coordinators have reported that their subgroup members have ceased work between the tracks that are not protected by a lookout and stopped operating equipment that could foul the adjacent track.
- Instruct the train or on-track equipment to proceed at a speed not exceeding 25 MPH (40 MPH for passenger trains) while passing the work location.

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## 12.5 Resuming Work

When conditions require work to cease, work may resume when the trailing end of the train or on-track equipment on the adjacent controlled track has passed the work location.

If the train or on-track equipment stops before the trailing end has passed the work location, work may be performed after the EIC establishes an understanding with the engineer or on-track equipment operator that:

- Movement may not resume without permission from the EIC, and
- The EIC must be notified if the equipment will be left standing unattended.

The EIC may permit the engineer or on-track equipment operator to move only after all members of the work group have ceased working.

## 12.6 Standing Equipment on Adjacent Controlled Tracks

When conditions require adjacent controlled track protection on a track where unattended standing equipment is located and a track bulletin Form B is not in effect on that track use one of the following methods to ensure work ceases as necessary before the equipment moves, passing the work location:

- Obtain authority on the adjacent controlled track to require movement be made only as directed by the EIC of the working limits.
- Position a flagman at the controlling end of the equipment.
- Use a lookout for train approach warning if the lookout can be positioned far enough in advance of the controlling end of the equipment to provide the required sight and minimum separation distance specified on the “Statement of On-Track Safety”.

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# 13.0 Not Used

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# 14.0 Rules Applicable Only Within Track Warrant Control (TWC) Limits

## 14.1 Authority to Enter TWC Limits

Where designated by the timetable, a track warrant will authorize Main Track use under the direction of the train dispatcher or as prescribed by Rule 6.14 (Restricted Limits). Track warrant instructions must be followed where restricted limits are in effect.

Track warrants do not authorize Main Track occupancy for MW employees within Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits).

Within yard limits, MW employees and equipment may only perform maintenance as prescribed by Rule 6.13.2 (Maintenance in Yard Limits). When moving through yard limits, proceed as prescribed by Rule 6.13.1 (On-Track Equipment Movements through Yard Limits).

## 14.2 Designated Limits

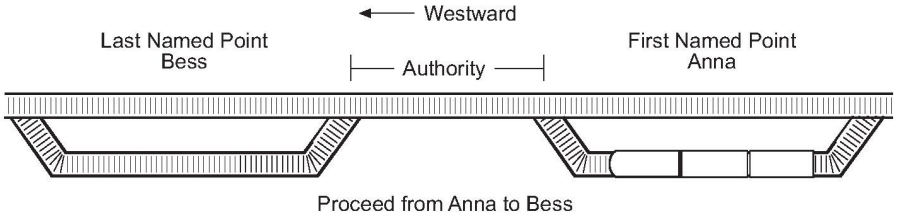
Track warrant limits must be designated by specifying track, where required, and specific locations such as switches, mileposts, or railroad identifiable points. However, station names may be used as follows:

**A. First Named Point**

When a station name designates the first named point, authority extends from and includes the last siding switch. Authority extends from the station sign if no siding exists.

**B. Last Named Point**

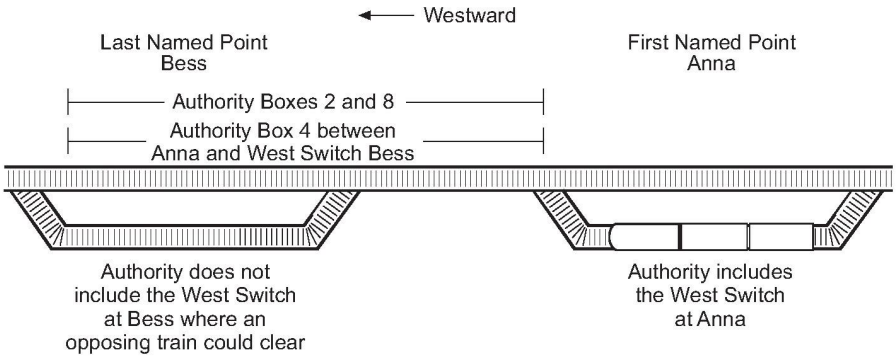
When a station name designates the last named point, authority extends to and includes the first siding switch. Authority extends to the station sign if no siding exists.




*[Diagram A.]*

## 14.3 Operating With Track Warrants

A track warrant authorizes a train, employee or equipment to occupy the Main Track within designated limits. However, a train, employee or equipment must not foul a switch at either end of the limits where an opposing train may use the same switch to clear the Main Track.




*[Diagram A.]*

The train, employee or equipment must move as follows:

1. Proceed from one point to another in the direction the track warrant specifies. When an employee informs the train dispatcher that the on-track equipment has passed a specific point, track warrant authority is considered void up to that point. When the train dispatcher instructs an employee to report passing a designated station or milepost, if the station has a siding, the report must be made after the on-track equipment passes over the last siding switch or milepost. If the designated station does not have a siding, the report must be made when the on-track equipment passes the station sign. Record the location of the specific point on the track warrant form.

   or

2. If authorized to "WORK BETWEEN" two specific points, a train, employee or equipment may move in either direction between those points without flag protection. When employee informs the train dispatcher that the authority is released between two specific points the authority is considered void between those points. This track release must begin at the outer limit of the authority. Record the location of the specific points on the track warrant form.

## 14.5 Protecting Men and Equipment

Men and equipment may receive a track warrant in the same manner as trains to occupy or perform maintenance on the Main Track without other protection.

A track warrant must not be issued to protect men and equipment within the same or overlapping limits with a train unless:

1. All trains are authorized to proceed in one direction only, and the track warrant specifies that men and equipment do not foul limits ahead of these trains.

   or

2. All trains authorized are notified of the men and equipment and have been instructed to move at restricted speed. Also, a track warrant must inform the employee in charge of men and equipment about trains. If the track is not safe for trains to move at a speed of at least 20 MPH, employees must protect the track with red flags according to Rule 5.4.7 (Display of Red Flag).

When authority is granted in the same limits with the train, all train movements must be made at restricted speed.

## 14.7 Reporting Main Track Switches Restored to Normal

Within TWC limits, when notified by track warrant that Main Track switches may be in the reverse position, if the Main Track switch is found to be in reverse position, restore the Main Track switch to the normal position and advise the train dispatcher.

## 14.8 Track Warrant Requests

An employee requesting a track warrant must state their name and occupation to the train dispatcher. The employee must inform the train dispatcher of the following:

- The subdivision.
- The location where the track will be entered.
- The limits to be occupied.
- Tracks to be used.

  and

- How much time is required.

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## 14.9 Copying Track Warrants

The employee in charge must have a copy of the track warrant issued and must read and understand it. The copy must show the date. The following must occur when a track warrant is transmitted verbally:

**A. Transmitting Track Warrants**

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating: "This warrant has (total number) boxes marked (Individual box numbers)."
2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.
3. The employee will repeat the information to the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating: "This warrant has (total number) boxes marked: (Individual box numbers)."
4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following: "Warrant (number) OK (time) (dispatcher initials)". The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher.

Note: The summary information in Items 1, 2 and 3 above will be exempt from pronouncing and spelling numbers as indicated in MWOR Rule 2.14.1.

**B. In Effect**

1. The track warrant is not in effect until the "OK" time is shown on it.
2. If the track warrant restricts movement or previously granted authority, it cannot be considered in effect by the train dispatcher until acknowledgment of the "OK" has been received.

Employees may relay track warrants.

**C. Receiving Track Warrants using Railroad Supplied Electronic Device**

When receiving a Track Warrant using a railroad supplied electronic device designed to request, receive, release or report clear of authority (e.g. Smart Mobile Client) a viewable electronic form of the authority granted is displayed by the device. Employees must use the electronic form to confirm authority limits.

Note: The electronic device graphical display of territory is not to be used for confirmation of authority limits.

## 14.10 Track Warrant in Effect

A track warrant is in effect until the employee in charge reports that men and equipment have cleared the limits, or the track warrant is made void.

## 14.11 Changing Track Warrants

Employees must not add to or alter a track warrant in any manner not prescribed by the rules.

When a track warrant must be changed, a new track warrant must be issued showing, "Track Warrant No. _____ is void" and the number of the track warrant being changed. When a track warrant of a previous date is voided, the date must be included. The previous track warrant will no longer be in effect.

## 14.12 Voiding Track Warrants

An employee must inform the train dispatcher when men and equipment have cleared the limits. Before reporting clear of a track warrant, voiding a track warrant or a releasing a portion of track warrant limits, hand operated Main Track switches within the authority limits must be restored to the normal position.

An employee releasing a portion of, or reporting clear of a track warrant must provide the following:

- Employee's name
- Track warrant number
- Authority limits
- Time the limits were cleared

When reporting clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, the employee will job brief with the train dispatcher about the position of Main Track switches and those switches operated are locked within the limits, referencing completion of the "Position of Switch/Derail" form or indicating no entries required.

When the employee in charge uses a hand operated switch to clear the Main Track and restores the switch to normal position, the employee in charge must remain at the switch location (in view of the switch) until the track warrant has been reported clear.

Employees must write "VOID" across each copy of the track warrant when reported clear of the limits or when the track warrant has been made void.

## 14.13 Mechanical Transmission of Track Warrants

Repetition is not required when track warrants are transmitted mechanically. The "OK" time will be given when the track warrant is issued. The space for the name of the copying employee may be left blank.

Track warrants that restrict the authority or movement of men and equipment must not be transmitted mechanically, unless the men and equipment being restricted will not leave the point without receiving the track warrant.

**Mechanical Issuance**

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom,
- Computer generated line on the bottom listing the items checked is missing,

  or

- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

# 15.0 Track Bulletin Rules

## 15.1 Track Bulletins

The train dispatcher will issue track bulletin restrictions as required. Track bulletins will contain information on all conditions that affect safe train or engine movement. Form A restrictions will be used for speed restrictions. Form B restrictions will be used as an authority for MW employees. Forms other than track bulletin restrictions Forms A and B may be used when necessary.

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

### 15.1.1 Track Bulletin Form B Request and Verification

Request a track bulletin Form B at least 12 hours in advance of the desired effective time. Use the electronic request process when practical. When not practical, a request for a track bulletin Form B may be made by providing the required information to the train dispatcher on the form entitled, “Request/ Verification of Track Bulletin Form B”.

Track bulletins that have been requested are not in effect until a copy of the track bulletin is received or the train dispatcher advises that all trains will be protected by track bulletin.

Verify with the train dispatcher that the Form B is in effect. Record or cross-check all of the information on the form entitled “Request/ Verification of Track Bulletin Form B” or with a copy of the Form B. The verification information must be retained until the track bulletin Form B has expired and track flags have been removed.

### 15.1.2 Control Operator Briefing

When track bulletin Form B restriction limits contain dual control switches the employee in charge of the Form B and the control operator will participate in a job safety briefing, including:

- What tracks will be occupied or fouled,
- Which, if any, of the dual control switches in the limits will be occupied or fouled,
- Routing requirements for movements within the limits.

Before using the Form B for authority or protection, the employee in charge must ascertain from the control operator that dual control switches are lined for the desired route and blocks have been applied to prevent operation of those switches within the Form B limits.

These blocks may be removed only under one of the following conditions:

- To reposition dual control switches as determined necessary in a subsequent job safety briefing between the employee in charge and the control operator for specific movement of trains or on-track equipment. The control operator must reapply the blocks and advise the employee in charge when the blocks have been reapplied.
- Form B is made void.
- Form B has expired.

## 15.2 Protection by Track Bulletin Form B

Display track flags as specified in Rule 5.4.3 (Display of Yellow-Red Flag) and Rule 5.4.7 (Display of Red Flag).

A train must not enter the limits unless instructed by the employee in charge. A train within the limits at the time the track bulletin Form B takes effect must not make further movement until instructed by the employee in charge.

A crew member must attempt to contact the employee in charge of a track bulletin Form B to avoid delay, giving the train's location and track being used. The employee in charge will use the following format to establish communication with the train:

Employee in charge of Track Bulletin No.____ (specifying line number when necessary) between MP____ and MP____ (specifying subdivision when necessary).

Trains within the limits, unless otherwise restricted, must move at the speeds specified by the employee in charge as stated in Item A (Instructions).

On-track equipment within the limits must not exceed 20 MPH unless otherwise instructed by the EIC.

**A. Instructions**

After communication with the train has been established, the employee in charge will use the following format to grant a train permission to proceed through the Form B limits:

- (Train ID) may enter limits (and pass the red flag) at MP____ and proceed at (one of the following), specifying route:
  - "Maximum Authorized Speed"
  - "Restricted Speed"
  - A speed specified by the employee in charge

An additional speed may be given to restrict a train's movement through a portion of the limits, by adding the following:

- Do not exceed ____MPH between/at MP____ and MP____ (or other location).

To require a train to stop at a designated location within the limits, add the following:

- Stop at MP____ (or other location) until additional instructions are received.

When men and equipment foul adjacent tracks, add the following:

- Men or equipment fouling (specify track).

**B. Repeat Instructions**

A crew member must repeat the above instructions, and the employee giving the instructions must acknowledge them before they can be followed.

Once instructions are received from employee in charge, if the track route changes from previous instructions received, contact employee in charge to determine that original instructions received are valid on new track route before proceeding on the new route. The movement must not change direction without permission from the employee in charge.

**C. Stop Column**

"Stop" must always be indicated in the stop column. Trains and employees must not enter the limits unless instructed by the employee in charge.

A red flag must be displayed at the beginning of the limits and at Main Track junctions within the limits. *See System Special Instructions track flagging examples.*

On-track equipment or a train within the limits at the time the track bulletin Form B takes effect, must not make further movement until instructed by employee in charge.

**D. Entering Within Limits**

Before entering the track governed by the track bulletin Form B from any location other than at the beginning of the Form B limits, obtain permission from the employee in charge.

### 15.2.2 Time Limits Expire

If track bulletin Form B limits cannot be cleared before the expiration of time shown on Form B, obtain other authority from the train dispatcher to remain within the limits.

If the train dispatcher cannot be contacted, immediately provide protection as outlined in Rule 6.19 (Flag Protection).

## 15.4 Protection When Tracks Removed from Service

Before a track is removed from service, it must be protected.

A track bulletin may protect tracks removed from service by designating the track and naming the points at each end of the track. Trains must not use this track, unless the track bulletin states the name or title of an employee who may authorize use, and this person directs all movement.

When required, the train dispatcher must advise crews of alternate routes and switch positions.

The train dispatcher, yardmaster, or other designated employee must be notified when the track can be returned to service.

This rule does not relieve MW employees or on-track equipment of their responsibility of obtaining authority or establishing protection as prescribed by Rules 6.3.1 and 6.3.2.

## 15.5 Protection When Tracks Blocked with Equipment

Notify the train dispatcher when Main Tracks, sidings, or other tracks that are normally clear are blocked with equipment and cannot be cleared.

When the Main Track or controlled siding is blocked, provide protection as specified by Rule 6.20 (Protection of Equipment Left on Main Track).

## 15.6 Change of a Rule, General Order or Special Instruction

When authorized by the designated manager, a track bulletin may be used to issue, change, or cancel general orders, special instructions, or rules.

General orders or special instructions cancelled by track bulletins must not be reinstated. The track bulletin must remain in effect until the general order that contains the change is posted.

## 15.9 Mechanical Transmission of Track Bulletins

Repetition is not required when track bulletins are transmitted mechanically. The “OK” time will be given when the track bulletin is issued.

Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

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# 16.0 Not Used

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# 17.0 Rules Applicable in Foul Time

## 17.1 Foul Time

On-track equipment or employees may occupy a manual interlocking or control point within the specified limits and time periods verbally authorized by the train dispatcher or control operator.

## 17.2 Requesting Foul Time

Employees requesting foul time must:

1. State their name, occupation, and exact location.
2. Specify the control point or manual interlocking to be occupied, including track or route if necessary.
3. Repeat the foul time granted back to the train dispatcher or control operator.
4. The train dispatcher or control operator must apply blocking devices to the traffic control system to prevent authorizing any other movement into the foul time limits.

Foul time is not in effect until the "OK" time is received. Copy the information on a track and time form.

Employees must take special care when requesting, copying and repeating foul time authority. Do not enter information, other than your name, date and subdivision, on the form until transmitted by the train dispatcher or control operator.

## 17.3 Using Foul Time

Foul time may be granted to an employee only after all trains moving within the limits have passed the control point or manual interlocking to be occupied. When using foul time, know the following:

1. Track may be used in either direction within the control point or manual interlocking without providing protection against either trains or other on-track equipment.
2. Foul time limits will include only the track in the direction switches are lined between absolute signals governing movement through the control point, unless specific authority is issued for the entire control point, or authority is specified for a particular route within the control point or interlocking.
3. Foul time also may be issued between specific switches or signals of a manual interlocking, if the train dispatcher or control operator can lock or block the switch or signal to prevent other movements into those limits.
4. Foul time may not be issued "joint."

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# 18.0 Not Used

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# Glossary

**Abbreviations**

Use only the following abbreviations:

ABS ..... Automatic Block Signal System
AMTK..... Amtrak
AS..... Absolute Signal
AUTH..... Authority
BRN..... Branch
C..... Center
C & E ..... Conductor and Engineer
CNT ..... Connection
COFC ..... Container on Flat Car
CONDR ..... Conductor
CP..... Control Point
CTC ..... Centralized Traffic Control
DISPR..... Dispatcher
DIST ..... District
DIV..... Division
DT..... Double Track
E ..... East
EBCS..... Eastbound Controlled Signal
EE..... East End
ENG..... Engine
ENGR ..... Engineer
ESS ..... East Siding Switch
EWD ..... Eastward
EXO..... East Crossover
FRT..... Freight
HER..... Head End Restriction
IM ..... Intermodal
JCT..... Junction
MAX..... Maximum
MMT ..... Multiple Main Track
MP ..... Milepost
MPH..... Miles Per Hour
MT ..... Main Track
MW ..... Maintenance of Way
N..... North
NA..... Not Applicable
NBCS..... Northbound Controlled Signal
NE..... North End
NO ..... Number
NSS ..... North Siding Switch
NWD..... Northward
NXO..... North Crossover
OK ..... Correct
OPR..... Operator
ORIG ..... Originating
PSGR ..... Passenger
RC ..... Radio Channel
RCO..... Remote Control Operator
RCZ ..... Remote Control Zone
RECD ..... Received
RE..... Region
RESTRN.... Restriction
RL..... Restricted Limits
RP..... Release Point
S ..... South
SBCS..... Southbound Controlled Signal
SDG..... Siding
SE..... South End
SS..... Station Sign
SSS ..... South Siding Switch
SUB ..... Subdivision
SUBDIV ..... Subdivision
SUPT..... Superintendent
SW..... Switch
SWD ..... Southward
SXO..... South Crossover
TFND..... Track Flags Not Displayed
TOFC..... Trailer on Flat Car
TRK ..... Track
TRN ..... Train
TWC ..... Track Warrant Control
W ..... West
WBCS..... Westbound Controlled Signal
WE..... West End
WSS ..... West Siding Switch
WWD ..... Westward
WXO..... West Crossover
XO ..... Crossover
YL ..... Yard Limits
YM ..... Yardmaster

Use the normal abbreviations for names of months.

**ABS**

See Automatic Block Signal System.

**Absolute Block**

A length of track that no train is permitted to enter while the track is occupied by another train.

**Absolute Signal**

A block or interlocking signal without a number plate, or designated by an A marker.

**Adjacent Controlled Track**

A track designated as a Main Track, controlled siding or any track where CTC is in effect with track center 19 feet or less from an adjacent track.

**Adjacent Tracks**

Two or more tracks with track centers spaced less than 25 feet apart.

**Automatic Block Signal System (ABS)**

A series of consecutive blocks governed by block signals, cab signals, or both. The signals are activated by a train or by certain conditions that affect the block use.

**Automatic Switch**

A switch that, when movement over the switch is complete, will automatically return to its normal position.

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**Block**
A length of track:

- between consecutive block signals.
- between a block signal and the end of block system limits.

  or

- in ATC limits the use of which is governed by cab signals and/or block signals.

**Block Signal**
A fixed signal at the entrance of a block that governs trains entering and using that block.

**Block System**
A block or series of consecutive blocks within ABS, ACS, CTC, or interlocking limits.

**Cars**
Railroad cars.

**Centralized Traffic Control (CTC)**
A block system that uses block signal indications to authorize train movements.

**Conductor**
Employee in charge of train or yard movement.

**Control Operator**
Employee assigned to operate a CTC or interlocking control machine or authorized to grant track permits.

**Control Point**
The location of absolute signals controlled by a control operator.

**Controlled Siding**
A siding within CTC or interlocking limits where a signal indication authorizes the siding's use. Rules applicable in CTC apply on these sidings.

**Controlled Signal**
An absolute signal controlled by a control operator.

**Correctional Repair**
One or more repairs of a minor nature, including, but not limited to, welding, spiking, anchoring, hand tamping, and joint bolt replacement, that are accomplished with hand tools or handheld, hand-supported, or hand-guided power tools. The term does not include machine spiking, machine tamping, or any similarly distracting repair.

**Correspondence of Crossover Switches**
Correspondence of crossover switches means both crossover switches are lined for the crossover or both are lined for the straight tracks.

**Crossings at Grade**
Crossings that intersect at the same level.

**Crossover**
A combination of two switches that connect two adjacent tracks.

**CTC**
See Centralized Traffic Control.

**Current of Traffic**
The movement of trains in one direction on a Main Track, as specified by the rules.

**Distant Signal**
A fixed signal outside a block system that governs the approach to a block signal, interlocking signal, or switch point indicator. A distant signal does not indicate conditions that affect track use between the distant signal and block or interlocking signals or between the distant signal and switch point indicator. A distant signal is identified by a D.

**Double Track**
Two Main Tracks where the current of traffic on one track is in a specified direction and in the opposite direction on the other.

**Dual Control Switch**
A power operated switch, movable point frog, or derail that can also be operated by hand.

**Effective Locking Device**
When used in relation to a manually operated switch or derail, a lock that can be locked or unlocked only by the craft or group of workers applying the lock.

**Electric Switch Lock**
An electrically controlled lock that restricts the use of a hand operated switch or derail.

**Electronic Device**
Any electrical device capable of conducting oral, written or visual communication including but not limited to telephone calls, text retrieval or entry, social media, accessing a web page, etc. (e.g. laptop, tablet, cellular telephone, hand-held or body-worn device, or other mobile device).

**Employee in Charge (EIC)**
A rules qualified MW employee who is assigned the duty of being responsible for the protection and direction of his/her self and his/her co-workers in any engineering work activity.

**Engine**
A unit propelled by any form of energy or more than one of these units operated from a single control. Engines are used in train or yard service. Rules that apply to engines also apply to cab control cars.

**Engineer**
Also includes student engineers, firemen, and hostlers (See also Remote Control Operators).

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**Equipment**
Railroad equipment.

**Escort**
An employee familiar with the territory and assigned by the employee in charge to assist the movement of equipment operated by employees, contractors, or other outside personnel unfamiliar with the territory.

**Fixed Signal**
A signal that is fixed to a location permanently and that indicates a condition affecting train movement.

**Flagger**
A person providing warning for highway or pedestrian traffic approaching malfunctioning crossing devices. Flaggers must wear enhanced visibility work wear and be equipped with a STOP/SLOW paddle. Flaggers must also be equipped with a red coned traffic baton flashlight at night.

**Flagman**
Any rules qualified employee providing flag protection. A flagman for any purpose (emergency or otherwise) must not be engaged in any task not associated with flagging duties.

**Foreman**
Employee in charge of work.

**Fouling Track**
The placement of an individual or an item of equipment, including material being handled by equipment, in such proximity to a track that the individual, equipment or material handled by equipment could be struck by a moving train or on-track equipment, or in any case is within four feet of the nearest rail.

**General Track Bulletin**
A notice containing track bulletin restrictions and other conditions affecting train movement.

**Inaccessible track**
Track where the entry of trains, engines, on-track equipment, and railroad cars is physically prevented. Used as a method to establish working limits on Other Than Main Track.

**Inter-track Barrier**
A continuous barrier of a permanent or semi-permanent nature that spans the entire work area, at least four feet in height and that is of sufficient strength to prevent a roadway worker from fouling the adjacent track.

**Interlocking**
Signal appliances that are interconnected so that each of their movements follows the other in a proper sequence. Interlockings may be operated manually or automatically.

**Interlocking Limits**
The tracks between outer opposing absolute signals of an interlocking.

**Interlocking Signals**
The fixed signals of an interlocking that govern trains using interlocking limits.

**Lone Worker**
A rules-qualified person not engaged in a common task with another person or group.

**Lookout**
A rules qualified employee assigned to warn roadway workers of approaching trains or on-track equipment.

**Machine Operators**
Operators of on- and off-track equipment.

**Main Track**
A track extending through yards and between stations that must not be occupied without authority or protection.

**Men**
Railroad employees.

**Men and Equipment**
A term referring to Engineering Department employees and their related equipment.

**Minor Work**
Work being performed which could not derail a train.

**Multiple Main Tracks**
Two or more Main Tracks that are used according to the timetable.

**Off-Track Equipment**
Machines that may be operated on the right-of-way foul of track. Off-track equipment includes tractors, scrapers, graders, cranes, trucks, and similar equipment.

**On-Track Equipment**
Machines that may be operated on the rails. On-track equipment includes motor cars, push cars, trailers, hi-rail vehicles, cranes, tampers, power jacks, ballast shapers, brooms, trucks, and similar equipment.

**Overlap Sign**
A sign that indicates the limits of a block.

**Pilot**
An employee assigned to a train to assist an engineer or conductor who is unfamiliar with the rules or the portion of railroad the train will operate on.

**Proceed Indication**
Any block signal indication that allows a train to proceed without stopping.

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**Radio**
As used in these rules, the term 'radio' also applies to wireless communication devices when used in radio operation.

**Remote Control Operator (RCO)**
Trainman operating Remote Control Locomotive (RCL) equipment.

**Remote Control Zone (RCZ)**
A portion of tracks within definite limits designated in the timetable special instructions.

**Reverse Movement**
A movement opposite the authorized direction.

**Roadway Worker**
Employee whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities or roadway maintenance machinery, on or near a track, and flagmen or lookouts.

**Siding**
A track connected to the Main Track and used for meeting or passing trains. Location of sidings are shown in the timetable.

**Signal Aspect**
The appearance of a fixed or cab signal.

**Signal Indication**
The action required by the signal aspect.

**Single Track**
A Main Track where trains are operated in both directions.

**Special Instructions**
Instructions contained in the timetable or other publication.

**Spring Switch**
A switch with a spring mechanism that returns the switch points to the original position after they are trailed through.

**Station**
A place designated by name in the timetable station column.

**Switch Point Indicator**
A light type indicator used during movement over certain switches to show that switch points fit properly.

**Timetable**
A publication with instructions on train, engine, or equipment movement. It also contains other essential information.

**Track Bulletin**
A notice of conditions affecting train movement.

**Track Occupancy Indicator**
An indicator that tells whether a length of track is occupied or not.

**Trackside Warning Detector**
A device that indicates conditions such as overheated journals, dragging equipment, excess dimensions, shifted loads, high water, or slides.

**Track Warrant Control (TWC)**
A method to authorize train movements or protect men or machines on a Main Track within specified limits in a territory designated by the timetable.

**Train**
One or more engines coupled, with or without cars, displaying a marker, and authorized to operate on a Main Track. A term that when used in connection with speed restrictions, flag protection, and the observance of all signals and signal rules also applies to engines.

**Train Coordination**
Working limits established by a roadway worker through the use of a train's authority on a Main Track or other track where specific authority is required from a control operator or train dispatcher.

**Trainmen**
Conductors, assistant conductors, brakemen, yard engine foremen, switchmen, and yard helpers.

**TWC**
See Track Warrant Control.

**Variable Switch**
A switch identified by a "V" or a bowl painted yellow. When trailed through, the switch points remain lined in the position they were forced.

**Working Limits**
A segment of track within definite boundaries on which movements may be made only as permitted by the employee in charge. Boundaries may be established using mileposts, station signs, timetable locations, or clearly identifiable points.

**Yard**
A system of tracks, other than Main Tracks and sidings, used for making up trains, storing cars, and other purposes.

**Yard Limits**
A portion of Main Track designated by yard limit signs and timetable special instructions or a track bulletin.

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## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

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**August 4, 2021:** 23.
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**October 1, 2021:** 54, 55, 56, 57.
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**January 1, 2022:** 15, 16, 17, 17a(added), 17b(added), 18, 19, 34, 35, 36, 41, 50.
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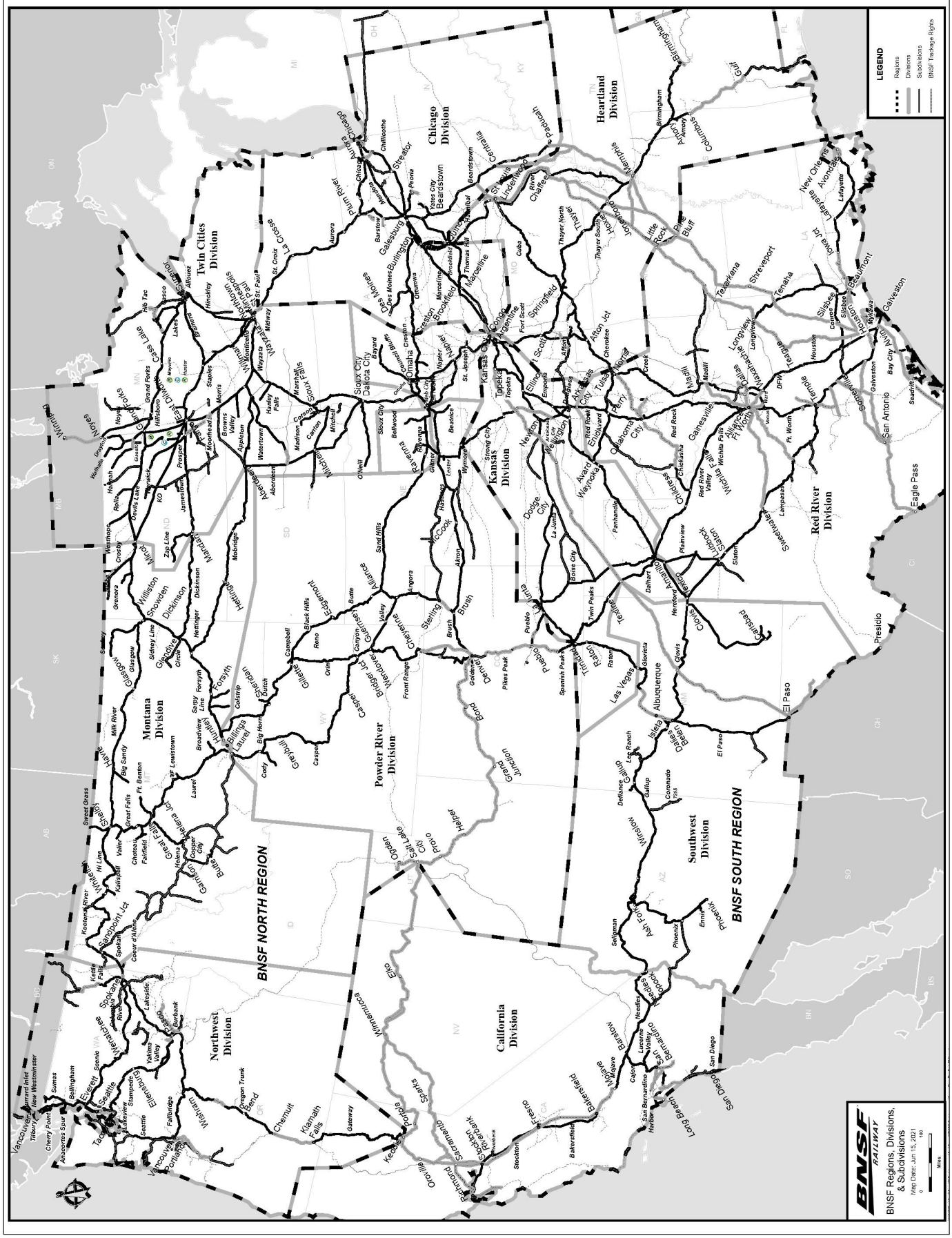
BNSF RAILWAY

# System Special Instructions

## All Subdivisions No. 2

In Effect at 0800
Central, Mountain and Pacific
Continental Time
**August 4, 2021**
(Including updates through
April 1, 2022)

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LEGEND
Regions
Divisions
Subdivisions
BNSF Trackage Rights
BNSF NORTH REGION
BNSF SOUTH REGION
Northwest Division
Montana Division
Twin Cities Division
Powder River Division
Chicago Division
Heartland Division
Kansas Division
Red River Division
Southwest Division
California Division
BNSF RAILWAY
BNSF Regions, Divisions, & Subdivisions
Map Date: Jun 15, 2021
Miles

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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In timetable individual subdivision special instructions, the number at the bottom of the station table column entitled "Miles to Next Station" denotes total miles on the subdivision.

## 1. Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars. Refer to 1(B) regarding maximum authorized speed of engines (locomotives).

Amtrak trains operating in Cascade service may observe Talgo speeds. The consist must be entirely Horizon and/ or Amfleet Single Level Passenger Equipment. If the PTC Onboard Consist does not reflect the correct train type, crews may modify their consist to "Tilt" Train Type.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

| | MPH |
|---|---|
| Freight trains under 100 TOB | 60 |
| Freight trains 100 TOB and over | 45 |
| Freight trains handling empty cars | 55 |
| Exception: Intermodal Equipment, see SSI 1(C) | |
| Empty coal trains (if train list indicates no speed restricted equipment) | 60 |
| Key trains | 50 |
| Solid consist of military equipment | 55 |
| Trains with welded rail loaded in open end gondolas | 45 |
| Non-signaled territory | 49 |
| Against the current of traffic | 49 |
| Through turnouts | 10 |
| Tracks governed by GCOR / MWOR 6.28 | 10 |
| Tracks governed by GCOR / MWOR 6.28 where timetable indicates a speed greater than 20 MPH | 20 HER |
| Within Mechanical Department limits | 5 |
| Movements on or off turntables and droptables | 1 |

Foreign railroad locomotives - Speed restrictions posted inside the locomotive cab of foreign railroad locomotives which are less than that listed above only apply when locomotive is utilized as a lead, controlling locomotive.

| Equipment | Main | Branch |
|---|---|---|
| Side dump ballast cars, BNSF car kind YHA and YHH, loaded | 45 | 45 |
| AMTK 1400-1569 (material handling cars) | 60 | 60 |
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 | 45 | 45 |
| Boeing cars, loaded, BNSF 800100-800135, MTTX 978384, 978576, 978596, 978644, 978649, 978660, 978781, 979162, 980855, 981187, 981218 | 45 | 45 |
| Clay cars, RARW 3801-4199 | 45 | 45 |
| Flatcars, empty, NP 580400-580739 | 50 | 50 |
| Flatcars, empty, bulkhead wallboard: BN 616475-616674, CS 616375-616474 DJTX 9300-9398, SOU 115250-115274 | 45 | 45 |
| Flatcars, empty, bulkhead, Picked up enroute and not on conductor's wheel report or work order | 45 | 45 |
| Flatcars, empty or loaded, OTTX 93561, 97852, 97861, 97914, 97920 | 45 | 45 |
| Flatcars, loaded with track panels, ATSF 190298, 209144, 209149 | 35 | 35 |
| Gondolas, empty, KCS 801011-802930, CR 576026-579245 | 45 | 45 |
| Gondolas, empty, Picked up enroute and not on conductor's wheel report or work order | 50 | 50 |
| Gondolas, empty or loaded, PC 598500-598999 CR 598500-598990, SP 345000-345699 | 45 | 45 |
| Herzog clip cars, HZGX 153, 154, 155 | 50 | 50 |
| Herzog MPM Machines, designated to be placed next ahead of caboose or at rear of cabooseless trains. | 55 | 55 |
| Hopper cars, covered, empty, (unless no speed restriction is indicated by train documentation) ASGX 1-50, BCAX 50-149, CGLX 4200-4249, CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904, CRDX 20100-20199, CRDX 20200-20209, CRDX 20300-20324, CRDX 20525-20724, CSXT 242000-242299, DME 29000-29324, DJLX 97300-97319, FLOX 3200-3241, FLOX 983400-983414, GACX 3000-3139, GACX 3150-3196, GACX 3202-3359, GACX 3486-3510, GACX 7959-8008, GCCX 55000-55099, LCEX 801-820, LCEX 824-898, NAHX 21000-21054, NAHX 29700-29867, NAHX 320000-320399, NCUX 20001-20050, NCUX 20106-20130, NRLX 32500-32605, NRLX 32706-32725, NVCX 9500-9619, NS 294220-294319, RGCX 650-899, RGCX 902-1067, RGCX 1069-1142, RGCX 1183-1222, SDWX 9700-9919, SDWX 10000-10333, SDWX 11000, SHPX 432118-432137, SHPX 432057-432116, WW 7001-7300 | 45 | 45 |
| Hopper cars, empty, WFAX 84654-84700 TUGX 36001-36125 | 45 | 45 |

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| Equipment | Main | Branch |
|---|---|---|
| Loram, 400 and 300 series and Harsco rail grinder, traveling (not in work mode) as a train on its own power with a conductor or engineer pilot | 50 | 50 |
| Loram, 400 series and Harsco rail grinder, when controlling movement from the rear control cab in the lead. | 50 | 50 |
| Loram, 300 series rail grinder, when controlling movement from rear control cab in the lead | 40 | 40 |
| Refer to manufacturer's maximum operating speeds when operating on descending grades. | | |
| Loram, LMIX 409, 410, 412, 414, 415, 417, KMUX 110, 750<br>Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars.<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 50 | 45 |
| Loram, LMIX 203, 204<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 55 | 55 |
| Ore cars, empty, 35 ft., OLB 1000-1099 | 50 | 50 |
| Ore cars, loaded, 35 ft., OLB 1000-1099 | 45 | 45 |
| P811, BNSF 922999 | 50 | 50 |
| Plasser machines,PACX 293, 2630, 2645, 3024,4656, 4657, 4774, 4775 | 45 | 45 |
| Plasser THS 2000, tie gang consist | 30 | 30 |
| Plasser 08 & 09 Tampers, PTS 61, 62 & 90 Stabilizers, BDS 100 & 200 Ballast machines, MFS40 & 60 cars and ULS3000 conveyor cars (traveling in a train or under own power with a conductor or engineer pilot) | 50 | 50 |
| Ribbon rail cars, empty | 45 | 45 |
| Ribbon rail cars, loaded | 35 | 25 |
| Ribbon rail loading and unloading cars | 45 | 45 |
| Roadrailer equipment (empty or loaded) | 60 | 60 |
| Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader handled in trains | 30 | 25 |
| Exception: Locomotive cranes/pile drivers with booms removed and secured to a leads car with the counterweight properly secured to the locomotive crane/pile drive car body, billed as empty car. | 45 | 25 |
| Exception: Jordan spreader, BNSF 939800 - 939804 | 50 | 50 |
| Trains and engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.<br>Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by roadmaster or covered by specific instructions. | | |

| Equipment | Main | Branch |
|---|---|---|
| Scale test cars<br>Exception: cars listed below have a minimum gross weight of 100,000 lbs. and may move in any position in the train and at maximum authorized speed for which the train is qualified. BN 979020-979024, BN 979026, BNSF 979019, FGWX 100000-700000, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, WWBX 199917-199919 | 35 | 25 |
| Schnabel type cars, empty. Cars must be handled on or near the rear of trains not exceeding 100 cars in length, must not be handled in trains requiring pusher service and must not be humped or switched with motive power detached | 45 | 45 |
| Exception: GEGX 21154, GEGX 21155, GEX 80000, GEX 80002, MAMX 1001 | 40 | 40 |
| Exception: KRL 3600, KRL 3601, GEX 80003, HEPX 200, PTDX 202 | 25 | 25 |
| Tank cars, ACFX 17451-17495, NATX 10841-10865 | 45 | 45 |
| Tank cars, DVLX 4001-4190, UTLX 76517, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736-76738, 76742-76745, 76747, 76748, 76750, 76751, 78256-78269, 78272, 78274, 78278, 78281, 78285, 78287-78293, 78326, 78328-78333, 78336-78340, 78343, 78344, 78347, 78348, 78350. 78353 | 40 | 40 |
| Tank cars, empty, CORX | 50 | 50 |
| Tank cars, loaded, CELX 6400-6455, 10400-10443 (must not be handled nearer than 6 cars from locomotive when loaded) | 45 | 45 |
| Wedge plow or dozer, hauled in tow | 35 | 25 |

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH and 21 MPH can cause derailments due to harmonic rocking of cars. Where specified by timetable individual subdivision special instructions or general order, the following restrictions apply when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains consisting entirely of empty equipment, which cannot maintain a minimum speed of 21 MPH, must reduce speed to 13 MPH or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Passenger Trains/Engines**

| | MPH |
|---|---|
| Amtrak | 90* |
| Metrolink | 90* |
| Metra | 79* |
| Sounder (Sound Transit) | 79* |
| Northstar | 79* |
| All other classes | 70 |

Exception:
When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, maximum speed is 45 MPH.

* Engine without cars must not exceed 70 MPH.

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**1(C). Multiplatform Equipment**

**Intermodal Equipment**

| TSS Car Kind Codes | Car Description | Units or Segments | Axle Count | Control Valves and/or Car Count | Trailers=T Containers=C Either=T/C |
|---|---|---|---|---|---|
| Articulated cars | | | | | |
| QY | Doublestack | 5 | 12 | 3 | C |
| QV | Doublestack | 3 | 8 | 2 | T/C |
| QM | Spine Car | 3 | 8 | 2 | T/C |
| QC | Spine Car | 3 | 8 | 2 | T |
| QO | Spine Car | 5 | 12 | 3 | T/C |
| Q5 | Spine Car | 5 | 12 | 3 | C |
| QE | Spine Car | 5 | 12 | 3 | T |
| FM | Twin Flat | 2 | 6 | 2 | C |
| M2D M3D M2F M3F | Automax | 2 | 6 | 2 | |
| Non-Articulated Cars | | | | | |
| QW | Doublestack | 3 | 12 | 3 | T/C |
| QX | Doublestack | 4 | 16 | 4 | T/C |
| QT | Doublestack | 5 | 20 | 5 | C |
| QB QD | Twin Flats | 2 | 8 | 2 | T |
| QL | Twin Flats | 2 | 8 | 2 | T/C |
| Single Unit Intermodal Cars | | | | | |
| QU | Doublestack | 1 | 4 | 1 | T/C |
| QK | Doublestack | 1 | 4 | 1 | T/C |

**Car Kind Codes for Intermodal Equipment**

In addition to the intermodal equipment listed above, all car kind codes beginning with the letter M, P or Q are considered intermodal equipment. On cars shown above, only the first two characters are required to identify car type, with the exception of those identifying Automax cars. However, train lists may use more than two characters to identify a given car type.

**Definitions of Multiple-Unit Equipment**

*Articulated*—Refers to cars with multiple units (segments) that are connected with articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**

Tons per operative brake on cars above is determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.

(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.

(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**

In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Cabooses and any car loaded with container chassis are considered loads for the purpose of the rule.

Exception: Intermodal equipment with empty units/platforms are restricted to 55 MPH only if not equipped with constant contact side bearings (CCSB). BNSF train documentation now provides guidance on this empty unit restriction as it applies to the intermodal cars listed above. When handling all intermodal equipment, train documentation will provide one of three messages as follows:

1. Train does not contain any intermodal equipment with empty units without CCSB.
2. Train is restricted to 55 MPH due to intermodal equipment with empty units without CCSB.
3. Train may be restricted to 55 MPH due to possibility of intermodal equipment having empty units without CCSB - Inspect to Verify.

In the event message 3 above is on train documentation, if train is otherwise authorized to exceed 55 MPH, a visual inspection must be made to determine the loaded status of units/platforms on car(s) listed. The inspection results must be noted on train list for relieving crews' guidance on train's maximum authorized speed.

When adding intermodal equipment enroute, train documentation may not have been generated. When this occurs, consider such car(s) to be restricted to 55 MPH if any units/platforms are empty. Subsequent train lists produced for crews after a pick up enroute will provide speed information on cars based on if CCSB-equipped.

This does not apply to trains that are otherwise restricted to 55 MPH or less such as when handling cars not listed above that are empty, other equipment speed restrictions, fuel conservation speed limits, etc.

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

Cajon Sub..... MP 56.6 to MP 80, all tracks
Raton Sub ..... MP 639 to MP 660
Glorieta Sub ..... MP 775 to MP 810
Glorieta Sub ..... MP 818 to MP 842
Pikes Peak Sub ..... MP 52 to MP 66
Hi Line Sub..... MP 1151 to MP 1166, both tracks
Midway Sub..... MP 0.5 to MP 2, both tracks
Phoenix Sub ..... MP 381.0 to MP 402.0
St. Paul Sub ..... MP 430 to MP 5, both tracks
Scenic Sub ..... MP 1694.5 to MP 1731.3
Stampede Sub..... MP 41.0 to MP 58.5
San Diego Sub ..... MP 250 to MP 255 (NCTC)
Gateway Sub..... MP 178.0 to MP 188.0

**On UP Railroad:**

Mojave Sub ..... MP 331.3 to MP 381.3
Moffat Tunnel Sub ..... MP 19 to MP 50
Moffat Tunnel Sub ..... MP 58.1 to MP 61.7
Provo Sub..... MP 630.5 to MP 638.1
Provo Sub..... MP 652 to MP 682
Roseville Sub ..... MP 115 to MP 170
Roseville Sub ..... MP 195 to MP 210

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## 2(B). Locomotive Data Tables

| DC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| SW1 | 4 | 0 | 600 | 99 |
| SW10 | 4 | 0 | 1,000 | 125 |
| NW10 | 4 | 0 | 1,200 | 126 |
| SW12 | 4 | 0 | 1,200 | 125 |
| SW15 | 4 | 0 | 1,500 | 131 |
| MK1200G | 4 | 0 | 1,200 | 125 |
| SWBL-W | 4 | 0 | 1,500 | 131 |
| GP7 | 4 | 0 | 1,500 | 125 |
| GP9 | 4 | 4* | 1,750 | 130 |
| GP9B | 4 | 0 | 1,750 | 124 |
| GP10 | 4 | 0 | 1,800 | 130 |
| GP15, GP15-1 | 4 | 0 | 1,500 | 129 |
| GP18 | 4 | 0 | 1,800 | 124 |
| GP20 | 4 | 4BT | 2,000 | 131 |
| GP28 M/P | 4 | 4BF | 1,800 | 130 |
| GP30 | 4 | 4BT | 2,500 | 131 |
| GP35 | 4 | 4BT | 2,500 | 133 |
| GP38,GP38-2 | 4 | 4ET | 2,000 | 143 |
| GP39, GP39-2 | 4 | 4EF# | 2,300 | 135 |
| GP40 M,E,-2 | 4 | 4BF | 3,000 | 139 |
| GP40X | 4 | 4BF | 3,000 | 139 |
| GP50 | 4 | 4EF | 3,600 | 138 |
| GP53, GP53L | 4 | 4EF | 3,000 | 136 |
| GP60M | 5+ | 5EF+ | 3,800 | 137 |
| GP60B | 5+ | 5EF+ | 3,800 | 135 |
| B23-7 | 4 | 4EF | 2,300 | 134 |
| B30-7A | 4 | 4BF | 3,000 | 138 |
| B36-B-7 | 6+ | 4EF | 3,600 | 140 |
| B-39-8 | 6+ | 5EF+ | 3,900 | 140 |
| B-40-8 | 6+ | 5EF+ | 4,000 | 142 |
| SD7 | 6 | 5BF+ | 1,500 | 157 |
| SD9 | 6 | 5 * | 1,750 | 184 |
| SD18 | 6 | 0 | 1,800 | 175 |
| SD35 | 6 | 5 * # | 2,500 | 195 |
| SD38-2 | 6 | 6 * # | 2,000 | 184 |
| SC38P | 6 | 6BF | 2,000 | 196 |
| TEBC6 | 6 | 6B | 2,000 | 194 |
| SD39 | 6 | 6EF | 2,500 | 195 |
| SD40, SD40-2 | 6 | 6EF * # | 3,000 | 196 |
| SD45, SD45-2 | 6 | 6ET | 3,600 | 198 |
| SD50 | 6 | 6EF | 3,600 | 194 |
| SD60, SD60M | 7+ | 8EF+ | 3,800 | 201 |
| SD70M | 7+ | 9EF+ | 4,000 | 200 |
| SD75M | 7+ | 9EF+ | 4,300 | 197 |
| C30-7 | 6 | 6EF# | 3,000 | 209 |
| SF30C | 6 | 6EF | 3,000 | 160 |
| C36-7 | 6 | 6EF | 3,600 | 197 |
| C40-8 | 7+ | 8EF+ | 4,135 | 197 |
| C44-9W | 8+ | 8EF+ | 4,400 | 196/210 |
| ES44DC | 8+ | 8EF+ | 4,400 | 210 |

| AC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| **C44AC[1] AC4400CW[1] AC4400EV[1] CW44AC[1]** | 8+ | 10EF+ | 4,400 | 210 |
| 1TM c/o | 8+ | 8EF+ | | |
| 2TM c/o | 6 | 6EF | | |
| 3TM c/o | 4 | 5EF | | |
| 4TM c/o | 3 | 3EF | | |
| 5TM c/o | 2 | 2EF | | |
| **C60[1] C60AC[1]** | 8+ | 12EF+ | 6,000 | 210 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **ES44AC[1]** | 8+ | 10EF+ | 4,400 | 208 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **SD70MAC** | 8+ | 8EF | 4,000 | 208 |
| 1 Truck c/o | 4 | 5EF | | |
| **SD70ACE** | 8+ | 10EF+ | 4,300 | 208 |
| 1TM c/o | 6 | 6EF | | |
| **SD70ACE4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD70ACT4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD80MAC** | 8+ | 10EF | 5,000 | 210 |
| 1 Truck c/o | 5+ | 5EF | | |
| **SD90/43MAC** | 8+ | 10EF | 4,300 | 208 |
| 1 Truck c/o | 4 | 6EF | | |
| **SD90MAC** | 8+ | 11EF | 6,000 | 208 |
| 1 Truck c/o | 6 | 6EF | | |
| **ES44C4[1] AC44C4M[1]** | 8+ | 8EF+ | 4,400 | 208 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **ET44C4[1]** | 8+ | 8EF+ | 4,400 | 214 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |

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Note: Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.

| | |
|---|---|
| + | Power or dynamic brake axle rating exceeds actual axles |
| ¹ | GE/EMD Locomotives (C44AC, C60AC, SD70ACT4, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives. |
| % | PTC Equipped |
| * | May not be equipped with dynamic brakes |
| # | May be equipped with standard range dynamic brakes |
| E | Extended dynamic brake range |
| B | Basic dynamic brake range |
| F | Flat dynamic brake system |
| T | Tapered dynamic brake system |

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in timetable individual subdivision special instructions.

| |
|---|
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 |
| Dozers |
| Empty ribbon rail cars (if moving with no train list or if identified as “Rear End Only” on train list) |
| Herzog clip cars: HZGX 153, 154, 155 |
| Herzog MPM:<br>HZGX 164, 165, 167, 174, 1740, 176, 1760, 178, 1780, 179, 1790, 180, 1800<br>HZGX 189, 1890, 18900, 192, 1920, 19200, 193, 1930, 19300, 194, 1940, 19400, 195, 1950, 19500, 199, 1990, 19900, 200, 2000, 20000, 205, 2050, 20500, 206, 2060, 20600, 207, 2070, 20700 |
| Jordan spreaders |
| Locomotive cranes |
| Loram, LMIX 203, 204, 409, 410, 412, 414, 415, 417, KMUX 110, 750 |
| Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars |
| Outfit cars (Exception: Univans may be placed anywhere in the train.) |
| P811, BNSF 922999 |
| Pile drivers |
| Plasser machines, PACX 293, 2630, 2645, 3024, 4656, 4657, 4774, 4775 |
| Plasser THS 2000, tie gang consist |
| Rear end only cars |
| Ribbon rail loading and unloading cars |
| Rotary snowplows |
| Wedge plows |

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

Locomotive cranes/pile drivers, wrecking derricks or similar equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by Roadmaster or covered by specific instructions. This equipment must not be humped, cut off in motion or struck by any car moving under its own momentum.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Hand brakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant).
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the timetable individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks as outlined in SSI Item 5.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines (including foreign line cars) having:

- elevated hoses for dump door air line, or
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level),

must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

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**3(D). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(E). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locking devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

A. If the adjacent track is a Main Track, controlled siding or other track where CTC is in effect, authority must be obtained as prescribed by MWOR 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR 6.19 to control movement by the work area.
B. If the adjacent track is a track governed by GCOR/MWOR 6.28 (i.e. yard, industry track, etc.), movement must not be permitted to pass air dump cars which are being charged or being unloaded.

**3(F). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

A. Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
B. Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
C. Cars with defective couplers may be transported to repair facilities behind caboose.
D. A crew transport train consisting of no more than two cabooses positioned between two locomotives may be operated during inclement weather conditions. The lead locomotive must be the controlling locomotive, with trailing locomotive isolated.

**3(G). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 MPH through other than Main Track turnouts.

**3(H). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(I). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid-drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**3(J). Herzog Articulated Equipment**

Herzog articulated equipment (all-purpose machines) are restricted as rear end only because drawbar connection between Herzog locomotive and cars does not have vertical restraint.

Switching Restrictions: All Herzog equipment must not be humped or handled with other freight cars during switching operations. This equipment must be cut off or set over so that remaining cars can be switched.

**3(K). Herzog Rail Unloading Machine**

A Herzog Rail Unloading Machine (RUM) may be coupled to a work train for rail unloading purposes only. The train must remain stationary while the RUM couples to the train in self-propelled mode. The following restrictions apply to trains with a Herzog RUM coupled to the train:

- All train movements may be made only at the direction of a qualified Herzog RUM operator accompanying the equipment.
- Maximum speed with Herzog RUM on trailing end of the movement is 15 MPH.
- Maximum speed with Herzog RUM on leading end of the movement is 10 MPH.

**3(L). Handling Roadway Equipment Equipped with Couplers and Air Hoses by Trains or Engines**

To prevent equipment damage, the following restrictions apply when handling Roadway Equipment equipped with rail car couplers and air hoses during train or switching movements:

- All air hoses must be coupled and air brakes cut in.
- An Engineering employee must be present when switching this equipment, including shoving movements.
- When moving between work locations all P811, UC01, UC03, UC08, UC09, UC10 and SC29-35 machines, and the flat cars transporting supporting equipment accompanying these machines, must be handled in a dedicated unit train or a dedicated work train. No additional rail cars may be handled in these trains.
- The heaviest machine may be placed as the rear car of a train only as directed by an Engineering employee.
- Maximum allowable speed while transporting in a train is 50 MPH.

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**4. Geometry Test Car Instructions**

Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, 93 and NXGX 390 (NxGen Car) must move in train by themselves. Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, and 93 are not required to have an ETD at the rear of the car when the car is occupied.

Work Orders for trains handling unmanned geometry test cars BNSF 90, 91, 92, and 93 will include instructions advising the conductor to call the Geometry Car Desk at 817-352-4559.

BNSF 808306, BNSF 808382, BNSF 808387, BNSF 808426, BNSF 808655 and BNSF 808683 are buffer cars assigned to Geometry Car service. When operating in a Geometry Car Consist, these buffer cars are considered to be passenger train equipment with a maximum authorized speed of 70 MPH.

Trains handling test cars AAR 112, BNSF 82 and BNSF 83 behind the locomotive consist may operate without further restricting the train from the maximum authorized speed designated in timetable individual subdivision special instructions. GCOR 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR 5.12 or 5.13. These cars are considered to be occupied at all times.

**FRA Track Geometry Inspection Cars**

The Federal Railroad Administration (FRA) Office of Railroad Safety-Automated Track Inspection Program (ATIP) manages a fleet of geometry test cars that measure track geometry for compliance with the Federal Track Safety Standards. FRA geometry cars are pulled behind a railroad-owned locomotive and staffed with FRA employees and contractors.

**FRA Geometry Car Operation**

1. Each train dispatcher and train crew will be governed by these instructions.
2. Before ATIP testing commences, the FRA representative (assisted by the test car director) is responsible for overall safety and will:
   a. Conduct a face-to-face job safety briefing with the train crew and all occupants of the test car concerning onboard safety appliances and standard operating procedures.
   b. Be aware of and discuss the operational and safety conditions, and on-track protection procedures, which may change throughout the course of the ATIP test; and update the job safety briefing accordingly.
3. The FRA representative will communicate directly with the railroad to ensure all operating rules, special instructions, and safety rules in effect on the test route are understood and correctly applied.
4. Trains consisting entirely of FRA geometry cars are restricted to BNSF timetable passenger train speeds, and must not exceed the following maximum equipment speeds: DOTX 216, 125 MPH; DOTX 217, 219, 220 and 221, 90 MPH; and DOTX 218, 80 MPH.
5. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew. The FRA Geometry Car operator relies on the train crew to identify relevant railroad physical characteristics, movement authority limits and authorized speeds.

**FRA Geometry Car Protection**

1. Neither FRA nor contractor employees will operate a railroad switch or derail, and will rely upon a railroad employee to perform that function. After receiving authority for placement from the appropriate railroad representative, protective devices owned by FRA, i.e., signs, derails, and locking devices, will be applied by an FRA representative.
2. FRA geometry cars must not be relocated or coupled to other rolling equipment without permission of FRA. At the request of FRA or the railroad, the following additional protective measures must be used:
   a. Within a locomotive servicing area or car shop area, the railroad's Blue Signal Protection rules and procedures will govern.
   b. When FRA geometry cars are unoccupied, FRA may request additional protection, such as posted guards, provided by the railroad and reimbursed by FRA.
   c. Where provided, a remotely controlled switch, providing entrance to the track occupied by FRA geometry cars, will be aligned against movement to that track. Blocking devices applied by the control operator will be placed on the switch and signal controls to prevent undesirable access.
   d. A manually operated switch will be aligned against movement to a track occupied by the FRA geometry car, and secured with an effective locking device, exclusive to FRA. In addition, the switch stand's operating mechanism will be equipped with an FRA-provided, visible, all-weather display tag, warning any users: "OUT OF SERVICE - DO NOT OPERATE."
   e. If a switch-locking device cannot be provided, as described above, FRA-provided portable derails will be used as an alternative to restrict access in either direction. In addition to the portable derails, the placement of warning signs will be displayed, indicating the presence of FRA geometry cars. The warning signs will be affixed or adjacent to the derail. FRA-provided derails will not be placed nearer than 150 feet from each end of the geometry cars, except where appropriate.
   f. If an FRA geometry car is standing alone, in addition to applying the hand brake, one wheel will be securely chocked to prevent movement.
   g. Either on a Main Track or other than Main Track, before anyone goes on, under, or between FRA track geometry cars, the locomotive engineer will apply the independent brake on the locomotive, remove the locomotive reverser, and open the field generator switch. The individual requiring protection will place a "Do Not Operate" tag on the locomotive control stand at a location where it is readily visible to the locomotive engineer or operator at the controls of that locomotive. The "Do Not Operate" tag may only be removed by the person who placed it on the locomotive control stand. Additionally, if adjacent tracks are, or will be, fouled by the individual going on, under, or between the FRA track geometry car, appropriate adjacent track protection must be afforded before going on, under, or between the car.

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**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- For hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E).
- For tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E).

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601399) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

The actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to locomotive cranes, ribbon rail cars or specialized work equipment.

Item 1(B) of the individual subdivision special instructions may include loaded railcar weight references, in which case the actual car weight may exceed the maximum by up to one ton due to weighing tolerances.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

**Table 5.**

**Car Restrictions**

| Line No. | No/ Axles and/ or Car Length | Typical Car Types & Partial Listing of Representative Car Number Series | **Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H**<br>Indicated weight limits are applicable to either single car or multiple car movements except for:<br>"143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements.<br>"P," which denotes that this type of car is permitted without special autohrization.<br>"NP," which denotes that this type of car is not permitted without special authorization. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E | F | G | H |
| 1 | 4 axles & length less than 35'0" | Hopper | 89 | NP | 89 | NP | NP | NP | NP | NP |
| 2 | 4 axles & length 35'0" to 36'11" | Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179 | 134 | 117 | 134 | 117 | 110 | 110 | 110 | 110 |
| | | | A | B | C | D | E | F | G | H |
| 3 | 4 axles & length 37'0" to 38'11" | Hopper, tank cars ATSF 82056-82990, 176900-177861 | 141 | 123 | 141 | 123 | 117 | 117 | 117 | 117 |
| 4 | 4 axles & length 39'0" to 40'11" | Hopper, tank cars BN 435500-435999 | 143 | 131.5 | 143 | 131.5 | 123 | 123 | 123 | 123 |
| 5 | 4 axles & length 41'0" to 42'11" | Hopper, tank cars BN 476000-476019 | 143 | 143 | 143 | 143 | 134 | 134 | 134 | 131.5 |
| 6 | 4 axles & length 43'0" to 44'10" | Hopper, tank cars | 143 | 143 | 143 | 143 | 136 | 136 | 134 | 131.5 |
| 7 | 4 axles & length 44'11" to 49'5" | Hopper, gondola, tank cars BN 686000-686054 COILCAR | 143 | 143 | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 8 | 4 axles & length greater than or equal to 49'6" | Hoppers, flats, gondolas, tank cars | 143X | 143X | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 9 | 6 axles | ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 LMIX 403, 409, 410, 412, 414, 418, NS 185541-185542 | 197 | 197 | 197 | 197 | 197 | 197 | 185 | NP |
| 10 | 6 axles | DODX 39810-39832, KRL 600430 | 197 | 197 | 185 | 185 | 185 | 178 | 175 | NP |
| 11 | 6 axles | Others | 185 | 185 | 170 | 170 | 170 | 165 | 160 | NP |
| 12 | 8 axles & length greater than or equal to 80'0" | ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021 | 263 | 263 | 263 | 263 | 263 | 235 | 235 | NP |
| 13 | 8 axles & length greater than or equal to 55'0" and less than 80'0" | | 263 | 255 | 263 | 255 | 235 | 235 | 235 | NP |
| 14 | 8 axles & length less than 55'0" | ATSF 90020-90023 | 220 | 195 | 220 | 195 | 180 | 180 | 180 | NP |
| 15 | | Articulated Intermodal | P | P | P | P | P | NP | NP | NP |

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**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Any foreign line carrier operating on BNSF that sets out equipment must notify the BNSF train dispatcher and the BNSF Mechanical Help Desk at the earliest opportunity and provide the following information:

- Equipment being set out including the engine/car number.
- Location where equipment was set out.
- Reason equipment was set out (e.g. flat spots, broken brake rigging, hot bearing, etc.).
- Commodity if a car contains a hazardous material, including but not limited to, Inhalation Hazard car(s).
- Any other pertinent information.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were performed enroute.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the proper track NUMBERS where they report work. Refer to the TRKLIST command in TSS for track numbers at a station or on a subdivision.

**Unit Trains (C, E, G, J, U, and X)**

Unit Trains at origin must report a "Pick Up" event and unit trains at destination must report a "Set Out" event using VTR.

- Report "Set Out" time through the VTR when the set out work is complete at the industry track, trains crews are clear of the equipment and the customer can begin processing the train, or when the unit train is handed off to the facility operator.
- Report "Pick Up" time through the VTR when the train begins departure from the industry track, departing the customer facility.

Train Work Order Package includes the following documents:

- Train list and profile.
- FRA 215.9 Mechanical Defective Cars List (if applicable).
- Hazardous manifest (if train contains hazardous materials).
- Work order for each station.
- Track list of each track to be worked.
- Supplemental Work Order Form.

The following reporting codes will be used to report work performed:

| Reporting Codes | | |
|---|---|---|
| Reporting Instructions for Scheduled/Unscheduled Work | | |
| Code | | |
| CC | CARRIERS CONVENIENCE | (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number. |
| DD | CARS DELIVERED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| IP | INTRA-PLANT SWITCH | (Code, date, time, zone/track/spot) |
| MO | MOVE | (Code, date, time, station name, zone/ track/spot). Use only to reposition a placed car to correct customer inventory. |
| ND | NOT DONE | (When ND code is used, enter ND explanation code or a full written explanation.) |
| OF | CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD | (Code, date, time, station name, zone/ track, name of road and person's name refusing cars) |
| PK | PICKUP | (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order. |
| PU | PULL | (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time, station, zone/ track where cars were left.) |
| RR | CARS RECEIVED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| RS | RESPOT | (Code, date, time, zone/track spot) |
| SO | SETOUT | (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/ number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD. |
| SP | SPOT | (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number. |
| TU | CARS TURNED ON WYE OR TURNTABLE | (Code, date, time, station name, zone/ track/spot) |

**Not Done Reasons - Potential Charge to Customer**

Car Can't Be Pulled - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

Car Can't Be Spotted - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

**Not Done Reasons - Not Chargeable to Customer**

Operation Reason

- Bad Order Car
- Done in Other Direction
- Tonnage Restrictions or Loco Problems
- Instructed to do Other than Scheduled Industry Work
- Not Switched into Train - Unavailable
- Hrs of Service Expired or Short on Time
- Weather Conditions
- Not Granted Mainline Time by Dispatcher
- Other Operating Exception

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**Reporting Methods**

*Radio*—With the exception of trains using the Work Order Reporting system or when reporting work trains, Voice Train Reporting using the MRAS/PBX system is the preferred method of reporting work. Conductors and engine foremen are expected to report as soon as possible after work is performed at each station. If Voice Train Reporting (VTR) or Work Order Reporting System (WORS) is used to report, it is not necessary to call Customer Support.

*Telephone or Cellular Phones*—Telephone or cellular phones assigned to conductors and engine foremen may be used when MRAS/PBX or radio communication is unavailable or radio is congested in order to provide timely reporting in the field.

*Electronic Device*—Computer reporting will not require any written documentation to be forwarded.

Conductors and engine foremen are required to call their designated Customer Support Specialist anytime there are questions or problems with work order information or work to be performed during their tour of duty.

**Work Order Codes**

There are three types of work order codes that appear on work orders: Request Codes, Status Codes and Hold Codes.

| Request Codes | | |
|---|---|---|
| **Code** | **Displays Work to Be Performed** | |
| **IP** | **INTRA-PLANT SWITCH** | Customer request to move a car originally spotted correctly to another spot or track within the industry. Cars are commonly moved per this request to complete loading, for inspection, etc. This switch is chargeable to the customer. |
| **PK** | **PICKUP** | Cars available to be picked up by train, local, road switcher at station. |
| **PU** | **PULL** | Customer request to move a car from an industry track to another track or scheduled destination. |
| **RS** | **RESPOT** | This switch is not chargeable to the customer and should be used only when correcting a railroad error. Customer request to move a car to a different track or spot within the industry after being placed incorrectly. |
| **SO** | **SETOUT** | Cars scheduled to be set out by train, local, road switcher at station. |
| **SP** | **SPOT** | Customer request to spot car for loading/unloading. |
| **TU** | **CARS TURNED ON WYE OR TURNTABLE** | Request to turn a car previously spotted and re-spot. |

| Status Codes | | |
|---|---|---|
| **Displays Current Status of Cars (Does not require any work to be performed)** | | |
| **Code** | | |
| **CP** | **CP** | Constructive placement. (Condition between carrier and customer.) |
| **DD** | **CARS DELIVERED IN INTERCHANGE** | Displays cars scheduled for interchange delivery to a connecting road. |
| **OF** | **CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD** | Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars. |
| **PL** | **PLACED** | Car on spot. (Displays car status and not a request.) |

| Hold Codes | |
|---|---|
| **Carrier/Customer Instructions Have Not Been Provided** | |
| **Scheduled Train Field** | |
| **HOLD ED** | Car to be held for equipment distribution. |
| **HOLD EH** | Car is to be held for embargo. |
| **HOLD HL** | Car is HIWIDE and has not been scheduled to a train. |
| **HOLD LS** | Car is on floating lease being held for customer order. |
| **HOLD ME** | Car is to be held for mechanical inspection. |
| **HOLD MT** | Car not scheduled for outbound train. |
| **HOLD NI** | Car has no instructions for spotting. |
| **HOLD OT** | Car is to be held for local order. |
| **HOLD WH** | Car is to be held for weighing. |
| **HOLD HF** | Car has no measurements/clearances. |
| **SCHI Code Field** | |
| **DO** * | Written delivery order. DO NOT SPOT. |
| **NC** * | Non-credit customer. DO NOT SPOT. |
| **SO** * | Car billed shipper's order. DO NOT SPOT. |
| **ZNTKSP Field** | |
| **00 00 00*** | DO NOT SPOT |

* Do not spot cars with '00 00 00' in the ZNTKSP field or cars with NC, DO or SO in the SCHI field.
(Cars may be pulled or picked up and moved to a location for further disposition when these codes are displayed.)

Work order documents will display work order codes as outlined by customer or carrier for specific instructions to conductors or engine foremen. They will be located in the Special Car Handling Instructions (SCHI) column or in the Scheduled Train column.

**Hours of Service**

Conductors or engine foremen should plan ahead and report scheduled and unscheduled work before hours of service expire. Conductors and engine foremen who relieve crews whose hours of service have expired will be responsible for reporting work performed during their tour of duty. If a crew's hours of service expire and they are unable to report scheduled or unscheduled work, the information must be passed on to the relieving conductor, engine foreman or supervisor who will be responsible to report work for the previous job.

**Pick Up in Block**

When picking up cars, enroute, trains must pick up in block unless otherwise advised by train dispatcher or in conflict with current train makeup instructions.

**7. Dimensional and Special Shipment Restrictions**

All employees involved in handling dimensional or special shipments must be familiar with and are governed by these instructions.

Dimensional loads on BNSF are defined as wider than 11' and/or higher than 17' ATR and/or longer than the length of the car.

Transportation Supervisors: See Management Instruction regarding advance notification requirements for dimensional shipments routed on UPRR or within the state of California.

a. Any dimensional and/or oversize car or special shipment must be accompanied by one of the following: message included with train's work order, track bulletin or message issued by BNSF Clearance Bureau.

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b. Before a dimensional shipment can be assigned to a train the supervisor in charge of train or yard crews (Terminal Manager, Trainmaster, Assistant Trainmaster, Yardmaster, etc.) at that location, or the conductor or yard foreman where no supervisor of train or yard crews is on-duty, must review and verify the dimensional clearance bulletin to ensure shipment is clear over the designated route of travel. After the review is complete the shipment may be assigned to the train appropriately. Issues regarding scheduling and/or train set, please contact Service Scheduling at 817-867-2000. Any issues regarding additional clearance segments and/or a lack of clearance, please contact the Dimensional Clearance Team for assistance at high.wide@bnsf.com.

c. Before a dimensional shipment can be moved in the yard, train or yard crews handling the dimensional shipment must ensure there is adequate clearance on adjacent tracks for safe movement. Clearance bulletins issued by the High Wide Team only protect BNSF main lines.

d. Before a dimensional or special shipment can be moved in a train the supervisor in charge of train crews (Trainmaster, Assistant Trainmaster, Yardmaster) at that location, or the conductor where no supervisor of train crews is on-duty, must obtain permission from the train dispatcher. This does not relieve conductor from complying with GCOR 1.47. When yard supervisors are notified of expected arrival of wide cars, precautions must be taken to safeguard employees in yard.

e. Before a dimensional shipment is picked up on line, conductor must obtain permission from the train dispatcher. When dimensional or special shipment is set out on line, conductor must promptly notify the train dispatcher.

f. Train dispatcher must issue appropriate track warrant, track bulletin or message when dimensional shipment restricts opposing train and confirm message received.

g. Train with dimensional shipment must not pass or be passed by a train in the same direction unless authorized by the train dispatcher or proper safeguards taken.

h. To provide for close observation enroute, all dimensional shipments must be placed in a block next to the lead locomotive consist, or due to the following exceptions as near the lead locomotive consist as possible:

1. Dimensional shipments, including idler cars moving with dimensional shipments, must be placed in compliance with minimum weight requirements outlined in train makeup rules.
2. On trains destined to or operating in the state of California, and train room permits, dimensional shipments must be no closer than the 6th car or platform from the lead locomotive consist. Dimensional shipments placed in train to comply with these requirements are also considered in compliance when enroute from the state of California.
3. Trains received from foreign railroads with dimensional shipment placement other than described above, may proceed to a location specified by train dispatcher to correct the condition.
4. When dimensional shipment is a shiftable load, GCOR 1.37 applies.

Boeing dimensional shipments, identified as having contents ACFTEQ on the train list, must be placed ahead of other dimensional shipments. Trains with one or more dimensional Boeing shipments with contents ACFTEQ, are limited to a combination not to exceed 10 loads and/or empties.

The following idler cars do not count towards the 10 car combination limitation:

| | | |
|---|---|---|
| MTTX 978773 | TTMX 80662 | XTTX 146316 |
| TBCX 737002 to TBCX 737042 | TTMX 80681 | XTTX 146319 |
| TBCX 737067 to TBCX 737084 | TTMX 80857 | XTTX 146322 |
| TTMX 80139 | XTTX 146251 to XTTX 146254 | XTTX 146323 |
| TTMX 80300 | XTTX 146262 | XTTX 146337 |
| TTMX 80635 | XTTX 146264 to XTTX 146267 | XTTX 146339 |
| TTMX 80657 | XTTX 146276 | |

These are specialized Boeing Service idler cars weighing 45 tons or more and may be billed loaded or empty, depending on destination. Trains handling all empty dimensional Boeing cars with contents ACFTEQ are limited to maximum of 25.

Note: In the application of the above, articulated autoveyors (car kinds M2F and M3F) are not considered dimensional shipments. (See Item 46)

No more than five uncovered assembled airplane fuselages may be transported in a train without approval from Boeing.

Airplane fuselages transported in trains from Wichita to Renton must be turned as soon as possible to move nose first in the direction of train travel unless otherwise approved by Boeing.

i. Employees are prohibited from riding excessive dimension cars. This restriction does not apply to:
- Auto-Max cars (car types M2F and M3F)
- Boeing cars - XTTX 146220, XTTX 146232, XTTX 146304, XTTX 146311, XTTX 146298, XTTX 137353

j. Train crews handling dimensional and/or oversize car or special shipment car(s) approaching locations controlled by the train dispatcher and where these car(s) are restricted should communicate with the train dispatcher and jointly determine if a meet or pass of any other equipment at the restricting location(s) can be accomplished safely.

k. When the dimensional message indicates “Stop, Proceed on Hand Signals” at a specific location, the following will apply:
- Stop the train before passing the location specified.
- Check the dimensional load for shifted contents.
- If safe to proceed without damage to shipment or property, move beyond the specified location on instructions from an employee(s) closely observing the shipment, not exceeding 5 MPH until the dimensional shipment clears the location specified.
- If employee(s) is unable to continue observing the shipment closely due to train makeup, topography, etc., movement may continue, not exceeding 5 MPH until the dimensional shipment clears the location specified.

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## 8. Trackside Warning Devices (TWD)

### 8(A). Description

Trackside warning devices (TWD) inspect passing trains for defects or monitor for unusual trackside conditions that could adversely affect the safe and efficient movement of trains. Examples of such devices include detection of the following conditions:

- Overheated journal bearings (hot bearing) (HBD)
- Dragging equipment (DED)
- High/Wide/Shifted load (SLD)
- High water
- Earth/Rock slide fence (Slide)

Individual subdivision special instructions identify the following:

- Detector location
- Detector type

Unless otherwise stated, protection will be hot journal and dragging equipment with bidirectional operation.

Exceptions will be shown as follows:

- Northward direction only (NWD)
- Southward direction only (SWD)
- Eastward direction only (EWD)
- Westward direction only (WWD)
- Dragging equipment only (DED)
- Shifted load only (SLD)
- Earth/Rock slide fence (Slide)
- Track Integrity Warning System (TIWS)
- Wheel Impact Load Detector (WILD)
- Detectors that protect bridges, tunnels or other structures
- Exception Reporting detector

### 8(B). Detector Radio Message

While passing over a detector, a pre-alarm message indicating "You have a defect" will be transmitted if a defect is detected. When this pre-alarm message is transmitted, immediately begin reducing speed in preparation to stop after the alarm message is transmitted, utilizing train handling methods that minimize in-train forces. Do not reduce speed below 20 MPH.

After a train has passed a detector, a radio message will be transmitted (unless the detector is defined as "Exception Reporting" in Item 5(B) of the individual division timetables). This radio transmission will provide alarm message details for defects noted during train passage such as "hot journal" detected, or non-alarm messages such as "no defects" or "integrity failure."

When the entire train has passed the detector and alarm message is transmitted, immediately stop the train utilizing train handling methods that minimize in-train forces.

The detector message is not complete until "Out" is transmitted.

**Train Approaching Detector**

Except in emergency, when approaching train is within 150 feet of a TWD, DO NOT make a radio transmission until the entire train has passed the TWD.

The train crew must have the radio set to the “in service” radio channel, for the Subdivision and location of the TWD, as shown in the timetable. The radio channel should not be changed until the entire train has passed by the TWD location and you have allowed time for the TWD to transmit any messages.

### 8(C). Detector Message and Train Crew Action

Use the following table to determine crew requirements when a detector message is received. If detector indicates more than one detector message or circumstance, comply with each train crew action shown. Radios at Exception Reporting detectors will only transmit a message when an alarm is present. Do not report a failure to transmit to the train dispatcher as is required with other types of detectors.

Note: 5(A) indicates detectors that protect bridges, tunnels or other structures. 5(B) indicates other TWD locations.

**Table No. 1 - 8(C) Non-Alarm Message**

| Type Detector | Non-Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | When detector announces “...no defects”, or when advised by signal maintainer or train dispatcher that there are no defects. | Proceed. | None |
| 5(A) | “Integrity Failure” | Stop the train consistent with good train handling. Perform a rolling inspection not exceeding 5 MPH on both sides of the train without entering or traversing protected structure. If unable to stop before a portion of the train has entered or traversed the protected structure, perform a walking inspection of that portion that is on or has already traversed the structure and perform a rolling inspection for the remainder of the train. | Report integrity failure to train dispatcher. |
| 5(A) | "Train Too Slow" with no alarm or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | None |

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| | | | |
|---|---|---|---|
| 5(B) | "Train Too Slow" or "Integrity Failure" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | Report "Integrity Failure" to the train dispatcher unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required. |

**Table No. 2 - 8(C) Alarm Message**

| Type Detector | Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(B) | "You have a defect, dragging equipment near axle XXX"<br>Or<br>"You have a defect, First wide load right/left side near axle XXX"<br>Or<br>"You have a defect, Shifted load right/left side near axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Stop immediately after post train alarm message is transmitted, or after the entire train has passed the detector if no post train alarm message is transmitted.<br>3. Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector post train alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) | "You have a defect, dragging equipment near axle XXX"<br>Or<br>"You have a defect, wide load right/left side near axle XXX"<br>Or<br>"You have a defect, shifted load right/left side near axle XXX". | 1. As soon as message "...you have a defect" is transmitted, provide warning to other trains and stop immediately.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>3. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>4. Report findings to the train dispatcher.<br>5. When the defective car(s) are set out or continue in train, notify the train dispatcher and mechanical help desk. | Detector post train alarm message may identify more than one defect. Inspect train for all reported defects before proceeding. If detector alarm message does not include axle designation, inspect both sides of entire train.<br>If train is stopped on top of the detector, a post train alarm message will be transmitted summarizing defect(s) detected followed by "Out".<br>Upon moving the train, defect detection will continue for the remainder of the consist. Additional defects may be identified and transmitted with invalid axle designation. Inspect both sides of the train from the last reported defect. |

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| | | | |
|---|---|---|---|
| 5(A) | "Hot journal right/ left side axle XXX". | 1. As soon as message "You have a defect" is transmitted, provide warning to other trains and stop immediately.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>3. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>4. Report findings to the train dispatcher.<br>5. When the defective car(s) are set out or continue in train, notify the train dispatcher and mechanical help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train.<br>If train is stopped on top of the detector, a post train alarm message will be transmitted summarizing defect(s) detected followed by "Out".<br>Upon moving the train, defect detection will continue for the remainder of the consist. Additional defects may be identified and transmitted with invalid axle designation. Inspect alarm side(s) of the train from the last reported defect(s). |

| | | | |
|---|---|---|---|
| 5(B) | “Hot journal right/ left side axle XXX” | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by “Out”. Stop immediately after the post train alarm message is transmitted or no alarm message is transmitted and the entire train has passed through the detector.<br>3. Contact NOC detector desk to initiate review of bearing profiles that caused alarm. If at any point before or during the inspection the NOC detector desk determines the stop to be invalid and releases the train, the inspection may be concluded.<br>Otherwise:<br>4. Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train<br>5. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector post train alarm message may identify more than one defect. Unless released by the NOC detector desk, inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

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| | | | |
|---|---|---|---|
| 5(A) or 5(B) | "Excessive Alarms" | 1. Inspect the indicated axle(s).<br>2. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>3. Inspect both sides of the remainder of the train from the last reported defect.<br>4. Report findings to the train dispatcher.<br>5. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Unless released by the NOC detector desk, inspect train for all reported defects before proceeding. |
| 5(A)<br>*Special condition, preparing to stop. | Post train alarm message with "Train Too Slow" is Transmitted. | If train slowed below 20 MPH while crossing the detector in preparation to stop, follow train crew actions for announced alarm message. | Report "Train Too Slow" with alarm to Train Dispatcher. |
| 5(A) or 5(B) | Post train alarm message with "Train Too Slow" is transmitted. | Inspect both sides of the entire train. | Report " Train Too Slow" with alarm to Train Dispatcher. |

**Table No. 3 - 8(C) Other Circumstances**

| Type Detector | Circumstance | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(B) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, proceed. | Report no message or incomplete message to train dispatcher. |
| 5(A) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of entire train. | Report no message or incomplete message to train dispatcher. |
| 5(B) - without recall code | No message<br>or<br>Incomplete message is transmitted. | Proceed | Report no message or incomplete message to train dispatcher. |
| 5(B) - Exception Reporting | No Message | Proceed | Do Not Report "No Message" to Train Dispatcher |
| 5(B) - with recall code Exception Reporting | Incomplete Message is Transmitted | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of train. | Report incomplete message to train dispatcher. |
| 5(B) - without recall code Exception Reporting | Incomplete Message is Transmitted | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train. | Report incomplete message to train dispatcher. |

Note: Detector message followed by the word "Out" indicates a complete message. Total axle count is not required for a complete message. If an alarm message is transmitted and it is not followed by the word "Out", the train will be governed by the Train Crew Action for that alarm message

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**8(D). Train Inspection**

When alarm message requires inspection, inspect the side of the train in the message. The reference to defect locations will be from HEAD END of train, and references to LEFT or RIGHT side are to engineer's left or right side in the direction of travel.

Determine the location of the indicated axle by physically counting axles from the HEAD END of the train, including locomotive axles. DO NOT depend on wheel report information for correct axle count. When alarm message requires, inspect indicated axle(s). If inspection does not reveal a defect, inspect 12 axles forward and 12 axles to the rear of the indicated axle. When this is necessary, inspect all 12 axles in each direction regardless of whether a defect is found before reaching the twelfth axle.

**Dragging Equipment/Shifted Load Inspection**

When a dragging equipment or shifted load alarm message is received, make a walking (trackside) inspection of the train until the inspection is complete or until an obstruction (bridge without a walkway or hazardous walking conditions) prevents further inspection. When obstruction prevents completion of inspection, move train at no more than 5 MPH to complete the inspection per GCOR 6.29.2. The train may proceed only after walking inspection confirms there is no dragging equipment or shifted load(s), defective car(s) are repaired or permission is received from the train dispatcher or manager to move the defective equipment.

**Overheated Equipment Inspection**

When an overheated equipment alarm is received, follow this procedure to inspect equipment:

- Crew member positioned on the ground must count axles.
- Move train at no more than 10 MPH until the indicated axle is near crew member or until inspection is complete.

When a train is stopped by a trackside warning device for hot journal, crew is to immediately contact train dispatcher who will relay the occurrence along with train identification and location to the NOC Detector Desk. The NOC Detector Desk will then contact the train and assist the crew with the process of inspection and identification of the suspect car. Train may not depart inspection location until NOC Detector Desk releases train from inspection and permission to depart is received from train dispatcher. The train crew must report the following to the NOC Detector Desk:

1. The axles were physically counted
2. A heat-indicating crayon or infrared device was used at the indicated axle,
   and
3. If inspection does not reveal a defect, that 12 axles forward and to the rear of the indicated axle have been inspected.

If a heat-indicating crayon or infrared device is not available, set out the indicated car.

After released by the NOC Detector Desk, contact the train dispatcher for permission to depart inspection location and to report train delay/detector stop information (i.e. axle readout, inspection result, car initial and number, journal number and size, set out location, crayon used, etc.). To contact the NOC Detector Desk, when using the 3 digit radio call-in code, use the 2 digits indicated in the timetable followed by a 5. If using the 1 digit radio call-in code, use 5.

**Freight Trains**

If no defect is found, train may continue, but crew members must closely observe indicated equipment for the next 25 miles or until inspection by hot bearing detector.

When a train actuates a wayside hot bearing detector before crew change location, the relieving crew will be advised of the equipment that activated the detector so that they can inspect the car and follow the above procedure if the equipment actuates a subsequent detector enroute.

When a freight train, other than a Key Train, is stopped by a trackside warning device and the indicated axle is on a loaded, placarded, non-intermodal car containing hazardous material, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

When a Key Train is stopped by a trackside warning device, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car (hazmat or not) must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car (hazmat or not) must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

**Passenger Trains**

If no defect is found after inspecting 12 axles forward and 12 axles to the rear of the indicated axle, inspect both sides of the entire train.

If no defect is found, train may continue, but crew must closely observe indicated equipment for the next 25 miles or until next inspection by hot bearing detector.

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**8(E). Testing Bearing Temperature**

Use a heat-indicating crayon or handheld infrared device to test bearing temperature. Test bearing temperature by stroking the heat indicating crayon on the bearing cup. A liquid smear will remain on an overheated bearing. (Determine if the bearing is hot by using a Dual Temp. 163 degree - 200 degree Fahrenheit, Mark All Thermal Melt, Millennium ordering reference no. 458304011.)

When ambient temperature is 32 degrees Fahrenheit or above, use a 200-degree Fahrenheit heat-indicating crayon to test bearing temperature.

When ambient temperature is below 32 degrees Fahrenheit, use a 163-degree Fahrenheit heat-indicating crayon to test bearing temperature.

Set out equipment with overheated bearings.

If it is safe to move equipment, set out car with an overheated bearing at a location accessible to repair personnel.

**Operating Infrared Device**

To measure a temperature, point at object and pull the trigger. Unit must be held approximately 1 – 1 ½ feet away from the journal or wheel to be measured. In order to be accurate, the target area must be at least twice as large as the spot size. Target must be free of grease or dirt. Steam, dust, smoke etc. can prevent accurate measurement by obstructing the unit's optics. Use the laser only for aiming.

CAUTION: Laser should never be pointed directly at eye or indirectly off reflective surfaces.

Point Non-Contact Thermometer (Infrared Device) at the bearing cup identified during train inspection and pull the trigger. Use laser for aiming the device. Record temperature displayed on the LCD. If temperature exceeds 180 degrees above ambient (outside) temperature, journal or wheel is considered hot and must be set out for repair. Ambient temperature may be determined by targeting any portion of the railroad car (except the wheel or journal) that has been exposed to outside air temperature. Avoid targeting the shiny surface of the wheel tread when measuring wheel for excessive temperature. Inaccurate readings will result from measuring polished or shiny surfaces. To measure wheel temperature, target the outside area of the wheel.

**Note:** When outside ambient temperature is significantly lower or higher than temperature where device is stored i.e., personal luggage or pocket, thermal shock may occur to the unit when removed from stored area. This may affect the ability of the LCD to give readout. In addition, accuracy of readout can be affected. If outside air temperature is less than 32 degrees Fahrenheit, it is recommended the device be kept in pocket until ready to target the wheel or journal to be inspected.

**8(F). Consecutive Alarm Messages**

If the same equipment is indicated by two successive hot bearing alarm messages, set out the indicated equipment. When a train actuates a wayside hot bearing detector before a crew change location, the crew being relieved will advise the relieving crew of the equipment that activated the detector. If the same equipment is indicated by the next detector with a hot bearing alarm message after departing the crew change location, set out the indicated equipment.

**8(G). Alarms Indicated on Locomotive or Caboose**

When unable to locate a defect indicated on a locomotive or caboose, notify the following:

- Connecting crew members
- Mechanical personnel
- Supervisor

Do not set out a caboose with a generator belt attached to the indicated axle unless a hot bearing, hot wheel or dragging equipment is found.

**8(H). Special Conditions**

When a hot bearing is found within 25 miles of a hot bearing or hot wheel trackside warning device, a crew member must notify the train dispatcher. The train dispatcher must notify the signal maintainer and request the TWD equipment be inspected.

When blowing or swirling snow conditions may prevent hot bearing detectors from making a proper inspection, crew members must reduce train speed to no more than 30 MPH while train is passing the detector to minimize this condition.

**8(I). High Water Detectors**

High water detectors have been placed under certain bridges and in areas where high water might occur.

A. When train is notified of high water by rotating red lights, radio message, signal indication or at a radio readout and no response is received, crew must not proceed over bridge or track until trackside examination by crew member or Engineering employee has been made to determine the following:
   - The track has not lost its normal alignment,
   - The track or bridge does not have sagging surface,
   - The shoulder ballast or ballast between the ties is not missing,
   - Water is not running between the ties, and
   - Water is not over the rail.

If inspection is made by an Engineering employee, the employee must be at the location and complete the inspection immediately before the train traverses the location. Follow up inspections must be made before each subsequent train move until the hazard is known to no longer exist. If determination cannot be made, contact train dispatcher for instructions before proceeding.

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B. Trains moving against the current of traffic must approach all locations protected by high water detectors prepared to stop unless:
- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- The shoulder ballast or ballast between the ties is not missing,
- Water is not running between the ties, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding. Note: When moving against the current of traffic and the location is protected by rotating red light or radio response, be governed by Item A above.

**8(J). Slide Detectors**

Slide detectors have been placed in certain areas where earth/rock slides might occur.

When a rock slide is indicated by rotating red light or radio message, trains must proceed at Restricted Speed AND be prepared to stop short of any obstruction through the entire slide detector area.

When train is stopped or moving at Restricted Speed because of signal indication governing movement through a slide detector, train must ALSO be prepared to stop short of any obstruction through the slide detector area.

Train dispatcher must be promptly notified if slide conditions are observed.

At locations equipped with Radio Readout type detectors, if no response is received, trains must proceed at Restricted Speed until track at this location is known to be clear of any obstruction. Train dispatcher must be promptly notified if slide conditions are observed.

**8(K). Warm Journal Detectors**

Warm Journal Detectors identify potential failure conditions in advance of actual failures using information provided only to the NOC Detector Desk, where the information is evaluated and necessary crew action is determined. When crew action is necessary, the NOC Detector Desk will coordinate through the chief dispatcher to have the train dispatcher issue required train crew action via radio. Train crews are then to contact the NOC Detector Desk and be governed by any additional instructions.

When notified by the dispatcher or NOC Detector Desk to take action relative to a "warm" bearing/journal, the train (including Key Trains or any train with hazardous material shipments) may be moved without additional restrictions to a convenient location to inspect or set out as directed.

Directed train crew action may include:

1. Perform a Set and Release of the Air Brakes:

   Perform a set and release of the air brakes (minimum of 10 psi brake pipe reduction) in an attempt to release any sticking brakes at the first convenient location consistent with good train handling. A "running release" may be performed if engineer determines conditions allow per ABTH Rule 103.3C. When a running set and release is necessary the NOC Detector Desk may contact the train crew directly with instructions.

2. Stop and Inspect a Specified Car:

   Stop and inspect specified car and be governed by instructions provided in each case by the NOC Detector Desk.

3. Set Out a Specified Car:

   Set out specified car at location as directed.

Instructions for potential failure conditions identified by the NOC Detector Desk do not supersede instructions for overheated/hot journals or defective equipment identified by other Trackside Warning Devices or visual inspections.

**8(L). Track Integrity Warning System (TIWS)**

The following TIWS instructions are in effect, unless otherwise specified in subdivision specific Timetable Special Instructions:

The Track Integrity Warning System checks the rail for continuity and alerts the Train Dispatcher to possible track occupancies or defects (e.g. broken rail) in non-signaled territory.

Subdivisions where TIWS is in effect are divided into a series of "zones" displayed by the Train Dispatcher's control system and identified in the field by Mile Post signs, Siding Switch signs, or a combination of these signs. Mile post signs identifying boundaries of a "Zone" may be displayed in tenths of a mile. Example: MP 926.3.

Track authority limits may be designated by MP signs representing "Zone" limits.

Alerts will be generated to the train dispatcher when occupancy is detected within a zone(s) not corresponding in proper sequence with an authority issued on that segment of track. Such alerts are referred to as "Track Integrity Down" (TID) and will be communicated by the Train Dispatcher to trains authorized within the zone(s).

Verbal instructions for "TID" may be provided to trains closely approaching the TIWS zone when an alert is received.

A new authority including "TID" information will be issued to trains not closely approaching an alerting zone. "Track Integrity Down" will be abbreviated as "TID". Following are examples of a "TID" communicated by Track Authority:

"TID MP 1011.3 to MP 1015.8" or "TID WSS Baker"

Trains receiving notification of "TID" must move at Restricted Speed within the designated zone limits and/or over a designated switch.

**8(M). Wheel Impact Load Detector (WILD)**

A Wheel Impact Load Detector (WILD) monitors passing trains for wheel defects which are categorized as Level 1 or Level 2. When a train passes over the detector, WILD installations equipped with field radio broadcast capability will transmit a radio message only when a defect has been identified, followed by the word "out". WILD installations with radio broadcast capability will be identified in the timetable.

**Level 1**

When a Level 1 defect is identified by a WILD with radio broadcast capability, a radio message will be transmitted indicating "you have (number of defects) defects", "Train (lead locomotive number)". After a brief pause, the detector will then broadcast details regarding right or left side, axle count from head end of the train and car number for the defect identified. Required train crew actions for Level 1 defects:

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- Record the information transmitted by the detector.
- Stop train and notify the train dispatcher of the delay due to required WILD Level 1 inspection.
- Inspect the axles identified for defects.
- If no defect is found, inspect 12 axles forward and 12 axles backward from the axles identified.
- Notify the dispatcher of the conditions found.
- Train may not depart from the inspection location until released by the detector desk and permission to depart is received from the train dispatcher.

If a defect message is incomplete or cannot be understood, enter the recall code. If message recall is unsuccessful, notify the train dispatcher and proceed with no restriction.

**Level 2**
Level 2 condition information is monitored by the detector desk and is used for predictive maintenance purposes only. The WILD will not transmit Level 2 detail by radio.

**9. Amtrak Instructions**

BNSF dispatchers must have General Track Bulletins (GTB) issued at least one hour before trains departure. If the Amtrak train crew does not have the GTBs 45 minutes before trains departure they must contact the dispatcher immediately. If unable to contact the dispatcher for GTBs 35 minutes before train departure, train crew must contact the BNSF Passenger Operations Team at 1-800-871-0902.

Dispatcher must be notified immediately when train does not maintain maximum authorized track speed.

Dispatcher must be notified immediately when crews experience rough track conditions stating limits and severity. This same information must be documented on the conductor delay report

No trash may be discarded on BNSF property.

**Station and Reporting Times**
Station work must be done in an expedient manner to avoid exceeding station dwell times. If station work is anticipated to exceed scheduled dwell time by more than 5 minutes, sufficient advance notice must be given to the dispatcher to eliminate or minimize train delays.

**Amtrak Trains Reporting Clear/Releasing Track Warrants**
Engineer and conductor are jointly responsible, through job safety briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant. When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Communication will use the following format:
  Crew member will state: "(Name), locomotive initial, number, (direction), reports clear of (mile post/location) (Provide switch briefing when required). Over."

  Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct. Over"?

  Crew member will state: "Job safety briefing between conductor (name) and engineer (name) confirm, that is correct. Over".

**Equipment**
Unless otherwise provided, equipment that cannot be safely operated at maximum speed must be set out at first available location unless train can arrive at final destination in less time than would be required to make the set out.

- Maximum speed for freight locomotives in Amtrak service is 70 MPH.
- Double stretch is required after pick up or set out of cars or locomotives.
- Required hand tools and supplies must be available on locomotive.
- Required switch keys must be in possession of Engineer and Conductor.
- Amtrak may not exchange or discharge passengers between trains except at stations.
- Amtrak may not exchange supplies between trains except at stations unless authorized by train dispatcher.
- Amtrak train garbage/refuse to be off loaded must be loaded into approved containers and only at stations that have assigned Amtrak employees or caretakers.
- Amtrak toilets must be discharged into appropriate containers. Dumping of toilets from Amtrak trains on BNSF right of way is prohibited.

**Head End Attendance**
The head end of all occupied passenger trains must not be left unattended for any reason while occupying Main Track or siding. At crew change locations the engineer's job safety briefing will take place in the locomotive cab or controlling compartment of cab control car. If the outbound crew is not on spot at a crew change location on arrival, the inbound engineer will remain on the head end until the outbound engineer arrives.

**Head End Power (HEP) Requirements**

- Departure from the originating station with the HEP cables short looped is prohibited.
- In the event of HEP failure, crew members must determine if the train may be handled safely and must make every effort to advance the train to the next siding or scheduled stop before repairs are made.
- All HEP cables must be secured with approved tie-downs.
- Air hoses and HEP cables must be secured no less than 4 inches above the top of the rail.

**BNSF Crews Operating Amtrak Trains**
When a BNSF crew operates an Amtrak train, a freight locomotive must be used. Amtrak personnel must handle all 480-volt AC power and set up Amtrak locomotives in the trail position. BNSF crews are prohibited from handling, adjusting or performing work between or under cars when Head End Power (HEP) 480 volt AC is energized. A freight locomotive will not be necessary when BNSF engineer is accompanied by an Amtrak qualified engineer or qualified Amtrak supervisor.

**BNSF Mechanical Assistance**
When mechanical problems develop the train dispatcher must be notified immediately as described in System Special Instructions item #45 and BNSF NOC Mechanical Desk notified if assistance is required. The delay for mechanical problems must be documented properly on the delay report.

**Conductor Delay Reporting**
The Amtrak conductor delay reporting method has been replaced with an electronic method. The electronic delay report (EDR) is essential to both Amtrak and BNSF. If the train operates on a route requiring EDR, the delay information must be reported no more than two hours after the train arrives its destination or at a crew change location.

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The reporting must be professional, brief, specific, and worded clearly and concisely. Each individual reason for delay must be separated from other delays. The reporting must include, in order of occurrence, the following:

- Any delay due to the inability to maintain maximum authorized passenger train speed.
- Reasons for delay over dwell times identifying specific cause of delay (passengers, baggage, late bus connections, mechanical issues, etc.).
- Delays associated with field equipment detectors. These delays require that specific information be given, even if no defect is found. Information as to the location of the defect, Car/Locomotive initial and number, axle and journal if applicable, and reason for inspection and defect, if any found.
- Amtrak instructions regarding authorization to hold or delay train, including reason.
- Delays caused by operating with one engineer.
- Delays caused by late General Track Bulletins.
- If the conductor manually changes electronic time, an explanation of the reason for change must be included within the EDR.

Reporting is required on all trips, including special trains, deadhead moves and trains terminated short of destination.

**Signal Awareness Forms**

Passenger train conductors and crew members are exempt from special instructions Item 43 unless they are in the controlling unit or the cab room of the controlling cab car and there is more than one crew member in the controlling unit or cab room of the controlling cab.

**10. Storage of Cars Within Restricted Limits or Yard Limits In Non-Signaled Territory**

Within restricted limits or yard limits in non-signaled territory, the Main Track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on Main Track in such territory, they must be protected by track warrant or track bulletin. This does not modify requirements of GCOR 6.13 or 6.14.

**11. Shunting the Track**

**Commodities Insulating Track**

Employees should be alert for insulating commodities such as clay, chips, oil, etc. on top of rails, or leaves covering the rails. This condition could possibly insulate the track and cause loss of train shunt. Such conditions should be promptly reported to the train dispatcher. When conditions are reported, trains must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**Movements Consisting of Less Than 12 Axles**

In CTC, manual interlocking, or ABS territory, a crew member must inform the train dispatcher/control operator, of train/engine movement consisting of less than 12 axles so that protection against loss of shunt can be provided. Train, engine and other such movements consisting of less than 12 axles must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**12. Switch Control/Monitoring Systems**

**12(A). Turnouts Equipped with Two Switch Machines (Movable Point Frogs/Swing Nose Frogs/Derails)**

Locations where turnouts are equipped with two switch machines will be identified under individual subdivision special instructions. When dual control switches equipped with two switch machines are operated by hand, the switch machine which operates the switch points and the switch machine which operates the movable point frog, swing nose frog, or derail must both be placed in hand operation.

GCOR/MWOR 9.13.1 applies at all locations where turnouts are equipped with two switch machines (movable point frogs/swing nose frogs/derails).

**12(B). Remote Control Power Switch (RCPS)**

Remote Control Power Switch (RCPS) allows the train dispatcher to request that the switch be lined and monitor switch position in non-signaled territory. The location of RCPS will be designated in the timetable. RCPS limits are designated by signs and the limits must not be occupied unless authorized. Track authority will authorize use of RCPS limits at each end of authority in the following manner:

"Switch - Yes" indicates that the authority includes the RCPS limits designated by signs in the field.
"Switch - No" indicates that the authority does not include RCPS limits and movement must stop short of sign designating RCPS limits.

If the train dispatcher cannot line the remote control power switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the train dispatcher must instruct the employee to operate the switch by hand. Movement may then proceed to that switch. Before passing over the switch, movement must stop and the employee must operate the switch by hand.

To operate a remote control power switch by hand:

- Obtain permission from the train dispatcher.
- Unlock the switch lock.
- Place the selector lever in the HAND position.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until at least one unit or car has passed over the switch.

The following information and instructions apply when the RCPS system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status to indeterminate/out of correspondence.

When an alert is received, the train dispatcher must promptly determine the location of the train with authority over the alerting switch and do the following:

- If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching (less than 7 miles) the alerting switch, the train dispatcher must instruct the crew to stop their train, consistent with good train handling, if possible, before traversing switch.
- If the train is not closely approaching the alerting switch, but it is more than seven miles from alerting switch, the train dispatcher is required to issue a new authority to the affected train that voids the authority over the alerting switch and ends at the alerting switch.

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**RCPS Position Indicator**

| | |
|---|---|
| Green | Switch lined and locked for Main Track movement |
| Yellow | Switch lined and locked for movement to or from Main Track |
| Dark (not illuminated) | Switch not locked, or selector lever in "hand" position. Contact train dispatcher and obtain permission to hand operate the dual control switch. |

RCPS position indicator lights do not authorize movements to occupy the limits between the RCPS signs governing the switch.

**12(C). Switch Point Monitoring System (SPMS)**

Switch Point Monitoring System (SPMS) is a program that will alert the dispatcher that a Main Track switch may not be properly lined for an approaching train in non-signaled territory. SPMS locations will be designated in the timetable.

The following information and instructions apply when the system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status from the normal position. Alerts will occur if a switch is reversed or its position becomes unknown (indeterminate).

Exception: An alert will not occur for trains operating with a proceed track authority (box 2) for switches located in the "from" and "to" locations of their authority.

When an alert is received, the train dispatcher must do the following:

- Promptly determine the location of the train with authority over the alerting switch. If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching the alerting switch, the train dispatcher may notify the crew verbally using the appropriate verbiage in the dialog box presented.
- If the train is not closely approaching the alerting switch, the train dispatcher is required to issue a new track authority to the affected train that restricts authority to the alerting switch.

  Note: Work between (box 4) authority for trains must end at any indeterminate switch. Authority may be issued beyond the indeterminate switch only after employee has verified that the switch is in the normal position by performing an on-ground inspection.

The dispatcher is prohibited from issuing two work between (box 4) track authorities to the same train that make the limits of authority end-to-end.

For example, do not issue track authority #1 with work between (box 4) from Anna to Bess and track authority #2 with work between (box 4) from Bess to Cloy.

Information received from the Switch Point Monitoring System must not be used to change the position of a Main Track switch that is protected by a track authority under the Protect Open Switch rules (GCOR 8.3, MWOR 8.3, and TDOCOM 42.19).

When a train crew is notified to be prepared to stop at an alerting switch, (either verbally or with a track authority), the train must not proceed over the switch until a crew member inspects the switch from the ground. The position of the switch must be reported to the train dispatcher as soon as possible after the inspection.

Maintenance of Way (MW) employees must have permission before operating an equipped Main Track switch. When Form B authority is in effect, the foreman or employee(s) working under the Form B must notify the dispatcher when opening any equipped Main Track switch(es).

When a MW employee receives a track authority with "Be prepared to stop at (location) until known to be in the normal position, the dispatcher must not indicate the switch to be "normal" unless the reporting employee has traversed the switch in Main Track to Main Track movement with on-track equipment and is physically at the switch.

The dispatcher must not "normal" an alerting switch until it has been inspected by a field employee.

**12(D). Independently Controlled Switches (ICS)**

Independently Controlled Switches are dual control switches of a crossover which, under certain conditions prescribed by the rules, may be operated independently. At locations identified in the timetable as having independently controlled switches, Maintenance of Way employees may request control operator permission to operate one end of a crossover for maintenance or testing purposes only.

**12(E). Protect Open Switch (POS)**

In non-signaled territory, track warrant authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

In ABS territory, track warrant work between authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

(Note: A train stopped short of the switch for topographical reasons, i.e., road crossings, grade considerations, etc., may be considered as stopped at the switch for application of this process).

**13. In Effect on BNSF Railway**

- General Code of Operating Rules, Eighth Edition, in effect April 1, 2020
- Maintenance of Way Operating Rules, in effect January 1, 2018.
- Air Brake and Train Handling Rules, in effect February 1, 2018.
- Train Dispatcher's and Control Operator's Manual, in effect November 1, 2020.
- TY&E Safety Rules, in effect August 4, 2021.
- Maintenance of Way Safety Rules, in effect August 4, 2021.
- Employee Safety Rules, in effect August 4, 2021.
- Mechanical Safety Rules, in effect August 4, 2021.
- United States Hazardous Material Instructions for Rail in effect June 1, 2021.
- 2020 Emergency Response Guidebook.
- BNSF Chicago Passenger Operations Manual No. 5, in effect May 14, 2021.
- Canadian Rail Operating Rules, in effect October 14, 2015. (For use in Canada only.)
- Remote Control Operating Instructions, in effect December 14, 2016.
- PTC Interoperability Instructions, in effect September 1, 2019 (For use by BNSF TYE crews operating on PTC interoperable routes.)
- BNSF Seattle Passenger Operations Manual No. 2, in effect April 1, 2019.

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**In Effect While Operating on Foreign Railroads:**
The following System Special Instruction items must be complied with by BNSF crews operating over a foreign railroad:

- Item 6. Work Order: Instructions for Reporting Work
- Item 27. Cars Set Out Bad Order
- Item 28. Grade Crossing Accidents
- Item 35. Switching and Handling Business Cars
- Item 43. Signal Awareness/Position of Switch Form
- Item 45. Network Operations Center Notification Requirements
- Item 49. Responsibilities and Certification
- Item 50. Rail Security Sensitive Material (RSSM) Instructions Chain of Custody Documentation for Rail Sensitive Material

**Detour Train Documents**

- When a foreign railroad detours trains on BNSF, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- When BNSF detours trains on a foreign railroad, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- The train list and hazardous material information must remain on the lead locomotive at crew change points.
- Detoured train documentation is not interchanged to the handling road's computer system.

**14. General Code of Operating Rules, BNSF Amendments and Supplements**

**GCOR 1.10**—is changed to read:

**GCOR 1.10 Games, Reading, or Other Media**

Employees on duty must not:

- Play games
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices)
  or
- Read magazines, newspapers, or other literature not related to their duties when:
  - On a moving train or locomotive unless deadheading in the cab of a non-controlling locomotive
  - Any crew member is performing safety related activities
  or
  - It would delay or interfere with required duties.

When use is not permitted, magazines, newspapers or other literature not related to duties must be stowed out of sight.

**GCOR 1.17 Hours of Service, Supplemental Instruction**

When reporting hours of service, time spent waiting for deadhead transportation must not be counted when determining time on-duty for hours of service purposes when relieved of all duties.

**GCOR 1.37 Open Top Loads**—is changed to read:

Flat cars, open top cars, and open TOFC/COFCs with loads which protrude beyond the car ends or if shifted, would protrude beyond the car ends must not be placed in trains next to the following if train length and makeup permit:

- Occupied outfit car
- Passenger car
- Engine
- Caboose
- Shipment of automotive vehicles or machinery that is not fully enclosed

This restriction does not apply to cars equipped with chains or cables securing the load to the car.

**GCOR 1.43 Stopped in Tunnels**—Under A. Engine or Train Stopped in Tunnel:

That part reading:

4. Apply hand brakes to prevent movement in case the air brakes leak off.

Is changed to read:

4. Secure required number of cars to prevent movement in case the air brakes leak off.

**GCOR 1.46 Duties of Yardmasters**—the following is added:

At the end of each shift, the yardmaster must make a transfer, filling in all the required information, including:

- All grade crossing warning devices out of service
- Any undelivered Track Bulletin Restrictions
- Any tracks, switches, or other infrastructure out of service
- Any other conditions or issues which may affect the safe and efficient management of the yard.

If the office has more than one shift, the yardmaster being relieved will remain until the relieving yardmaster understands, accepts, and acknowledges the transfer.

The transfer must be documented in Yardmaster Transfer in YDS. If TSS is not available, the transfer must be documented in writing and maintained for 30 days.

**GCOR 1.47 Duties of Crew Members**—Item C, All Crew Members' Responsibilities, the following is added to Item 2:

Crew members must not use binoculars or similar devices to determine the position, aspect, or indication displayed by a fixed signal.

**GCOR 1.48 Time, Supplemental Information**

Dial 8-998-8463, 8-WWV-TIME, or 8-435-6000 to obtain coordinated universal time signal.

**GCOR 2.14.1 Verbally Transmitting and Repeating Mandatory Directives**

**Supplemental Instruction**

Apply the following when verbally transmitting and repeating a mandatory directive identified by numbers separated with a hyphen:

- State the first number, then state or spell each digit separately for that number.
- State the hyphen as "dash".
- State the second number, then state or spell each digit separately for that number.

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5."

Employees repeating the initial transmission of the mandatory directive must repeat the number in this same format.

**Supplemental Information**

When authorities are repeated precisely as they are transmitted, the Control Operator / Train Dispatcher is able to follow the words when checking the repeat for accuracy. When authorities are not repeated properly, it is more difficult for the Control Operator / Train Dispatcher to follow the repeat process.

Employees are expected to repeat authority precisely as it is recorded on the authority form. All words which are on the form or shown in the examples must be repeated in the proper order and without adding or deleting words.

Employees will be given three chances to repeat an authority properly. If unable to repeat properly after three attempts, the Control Operator / Train Dispatcher will stop the authority and the employee will not be given additional authority until a supervisor has been contacted.

**GCOR 2.14.2**—The following rule is added:

**GCOR 2.14.2 Before Reporting Clear of Authority Limits**

Before a field employee reports clear or releases a portion of authority limits, and the Train Dispatcher/Control Operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the Train Dispatcher/Control Operator.
- The Train Dispatcher/Control Operator will have the required form or computer screen displayed for data entry and confirmation.
- The Train Dispatcher/Control Operator and employee will carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct.

**GCOR 2.21**—is changed to read:

**GCOR 2.21 Electronic Devices**

This rule outlines the requirements for use of electronic devices. As used in this rule, the following definitions apply:

**Electronic Device**—means an electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety-related task.

**Railroad Operating Employee**—means an individual who is:

- Engaged in or connected with the movement of a train including a hostler,
- A train employee providing commuter or intercity rail passenger transportation,
  or
- Subject to hours of service governing train service employees.

The use of any electronic device is prohibited if that use would interfere with an employee's performance of safety-related duties.

**A. Personal or Railroad-Supplied Electronic Devices**

Personal or railroad-supplied electronic devices may be used as necessary:

- To respond to an emergency situation involving the operation of the railroad
- To respond to an emergency encountered while on-duty
- As a communication device in the event of radio malfunction
- To refer to a railroad rule, special instruction, timetable or other directive using the digital storage and display function while inside the controlling cab of a locomotive, train or on-track equipment after there has been a job safety briefing and all crew members agree that it is safe to do so.

Other than railroad operating employees may use electronic devices in the body of a business car or passenger train when it will not interfere with an employee's performance of safety-related duties.

Except as otherwise authorized, the use of any audio or video recording device to record communications by or between employees is strictly prohibited without the prior knowledge and express consent of all parties to the communication.

**B. Personal Electronic Devices**

Except when deadheading in other than a controlling locomotive, railroad operating employees on-duty (including supervisors) must have each electronic device turned off and stowed out of sight with any earpiece removed from the ear when:

- On moving rolling equipment or on track equipment unless device is being used to reference a railroad rule, special instruction, timetable or other directive,
- Any member of the crew is on the ground performing safety-related duties,
  or
- Any employee is assisting in preparation of the train, engine(s) or on-track equipment.

A railroad operating employee may use an electronic device when:

- Rolling and on track equipment is stopped,
- A job safety briefing is conducted with all crew members to confirm that it will not interfere with any safety-related or required duty,
- No member of crew will foul any track.

When device is not in use it must be off and stowed out of sight.

A personal stand-alone camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- A job safety briefing is conducted among all crew members and any other individuals in the controlling cab of moving equipment,
- It is turned off immediately after the photograph has been made;
- It is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

**C. Railroad-Supplied Electronic Devices**

After a job safety briefing including all members of the crew determines railroad-supplied devices can be used safely, railroad operating employees may use such devices to send or receive work related information with:

- Railroad supervisors
- Railroad customers
- Railroad dispatchers
- Railroad customer service employees
  or
- Other railroad employees as necessary in the performance of their duties.

Railroad operating employees must not use a railroad-supplied electronic device for purposes other than which it was intended or while:

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- Operating the controls of a moving locomotive unless device is being used to reference a railroad rule, special instruction, timetable or other directive.
- On the ground within 4 feet of any track.
- On the ground and engaged in an active switching operation.
- Riding rolling equipment during a switching operation.
- At the controls of the locomotive and any other employee is assisting in the preparation of the train, engine(s), or on-track equipment, including testing of railroad equipment or brakes.
- Inside the controlling cab of a locomotive, train or on-track equipment, unless there has been a job safety briefing and all crew members agree that it is safe to do so.
- Verbally obtaining or releasing mandatory directives when railroad radio communication is available.

A railroad-supplied electronic device may be used to take a photograph pertaining to authorized business purposes that include a potential safety hazard, violation of a rail safety law, regulation, order or standard; or conditions that prevent a train crew from accessing and performing work at a customer facility provided that:

- Train is stopped.
- A Job Safety Briefing is conducted including all members to confirm that it is safe to do so.
- If the crew member taking the photograph is on the ground they cannot be within 4 feet of any track.

**GCOR 4.3 Timetable Characters, Supplemental Instruction**

A.....Automatic Interlocking
B.....General orders, notices, and circulars
C.....Radio communication
g .....Gate, normal position against conflicting route
G.....Gate, normal position against this subdivision
J.....Junction
M .....Manual interlocking
P.....Telephone
R.....Restricted Limits
S.....Railroad crossing protected by permanent Stop sign
T .....Turning facility
U.....Railroad crossing not protected by signals or gates
X.....Crossover
X(2).....Multiple crossovers
Y.....Yard Limits

**GCOR 5.3.3 Signal Disappearance**—is changed to read:

If a person disappears who is giving the signal to back or shove a train, engine, or car, or the light being used disappears, employees must stop movement.

**GCOR 5.4.2 Display of Yellow Flag**—"Less than Two Miles Ahead of Restricted Area" under "A. Restriction is in Effect" is changed to read:

**Less than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, junction, or another area or if restriction is on a siding, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**GCOR 5.4.6 Display of Flags Within Current of Traffic**—this rule is canceled.

**GCOR 5.4.8 Flag Location**—the first paragraph is changed to read:

Flags will be displayed on all Main Tracks and sidings leading to the track affected.

**GCOR 5.5 Permanent Speed Signs, Supplemental Instruction**

Reduced speed limits may be designated by Advance Warning sign (diagonally upward), Reduce Speed sign (rectangle) and Resume Speed sign (vertical).

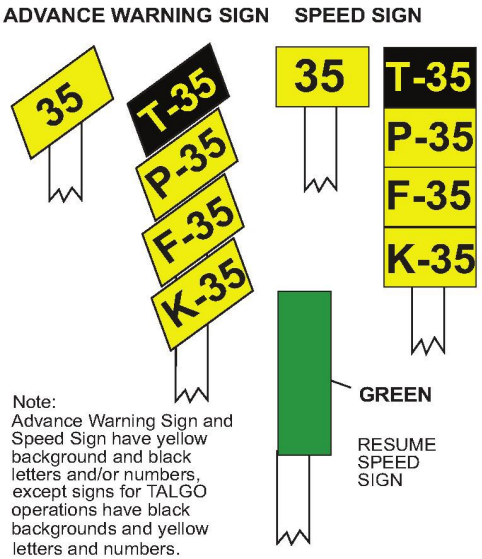
The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction. Signs reading "K-END" indicate the end of Key Train municipal area limits. Resume speed signs are not displayed at the end of Key Train municipal area limits.

Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision.

Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.

These signs, as illustrated, apply to train and engine movements as follows:




Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures preceded by the letter K apply to Key Trains.

Figures not preceded by a letter apply to all trains.

**GCOR 5.8.1 Ringing Engine Bell**—the following is added as a fourth bullet:

- When whistle signal (7) is required.

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**GCOR 5.8.2 Sounding Whistle**—the Indication for Sound (8) is changed to read:

| Sound | | Indication |
|---|---|---|
| (8) | — o | Regardless of any whistle prohibitions:<br>Approaching men or equipment or other individuals on or near the track.<br>After sounding initial warning for men or equipment or other individuals, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment or other individuals.<br>Whistle warning is not required:<br>• When there is an adjacent track and men or equipment or other individuals are beyond the farthest rail of the adjacent track.<br>• For members of the same crew associated with movement of their engine unless necessary to warn or alert a crew member<br>Do not sound whistle in designated mechanical servicing and repair facilities, unless for an emergency or when approaching roadway workers. |

**GCOR 5.8.4 Whistle Quiet Zone**—the following is added:

An employee may sound the train horn to provide warning to crews on other trains in an emergency situation, vehicle operators, pedestrians, trespassers or animals if, in the employee's sole judgment, such action is appropriate to prevent imminent injury, death, or property damage. Train crews are not restricted from sounding the horn when:

- There is an emergency situation.
- A wayside horn system (WHS) is malfunctioning.
- Active grade crossing warning devices malfunction.
- Grade crossing warning systems are out of service.
- Supplemental or alternative safety measures are not compliant.
- Needed for purposes other than highway-rail crossing safety, for example, to announce the approach of a train to roadway workers.

All other whistle and bell requirements remain in effect.

**GCOR 5.9.1 Dimming Headlight**—is changed as follows:

1. is changed to read:
   1. At stations and yards where switching is being done. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).
3. is changed to read:
   3. When stopped on the main track waiting for an approaching train. However, when stopped in block system limits, turn the headlight off at the radio request of the crew of an approaching train until the head end of the train passes. After head end of approaching train passes, turn headlight on bright while the train is passing.
4. is changed to read:
   4. When approaching and passing the head end of a train at night. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).

**GCOR 5.11 Engine Identifying Number**—the following exception is added:

Exception:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by train symbol.

**GCOR 5.11 Engine Identifying Number, Supplemental Instruction**

Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines:

SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines:

CSXT, CSX and CSX Transportation.

Where PTC is in effect, passenger trains operated from a cab control car on the leading end of the movement will be identified by the cab control car initials and number, adding the direction when required.

Metrolink engines or cab control cars with no initials stenciled on the side will be identified as SCAX units.

**GCOR 5.13 Blue Signal Protection of Workmen**

**Item B. How to Provide Protection**—is changed as follows:

On a Main Track is changed to read:

**On a Main Track.** A blue signal must be displayed at each end of the rolling equipment and, if the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Section titled **On Other than a Main Track** is changed as follows:

The following is added after item 1:

Use the following sequence when applying blue signal protection:

a. Line and lock the switch
b. Display blue signal at or near the switch and;
c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at or near the switch
c. Remove the lock from the switch and replace the hook or hasp, if equipped.

Item 2 is changed to read:

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
   a. Positioned at least 150 feet from the rolling equipment to be protected.
   or
   b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.

   Use the following sequence when applying blue signal protection:
   a. Lock the derail in the derailing position
   b. Display blue signal at the derail and;
   c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

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Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at the derail
c. Remove the effective locking device from the derail and ensure derail is in the proper position.

The following is added to the end of item 3:

After the switch operator informs the employee in charge of workmen that switches have been lined against movement onto track and devices controlling the switch have been secured, display required blue signals on controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signals from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Employee in charge to notify the switch operator when it is safe to remove switch-locking devices.

**Item C. Blue Signal Readily Visible to Engineer**—Item 3 is changed to read:

3. The engine must not be moved. The controls must not be changed unless directed by individuals who placed the blue signal protection.

**GCOR 6.3 Main Track Authorization**—the paragraph titled Joint Authority is deleted, and the following is added:

**Overlapping Limits**
When a train receives track and time, track warrant or track permit authority joint with an employee the train must not occupy the overlapping limits until permission is received to enter the overlapping limits from the employees listed on the authority.

**GCOR 6.5 Shoving Movements**—is changed to read:

Shoving cars or engines ahead of an engine must be performed by an employee visually observing the intended route while communicating instructions with the employee controlling the engine to ensure safe operation.

A GCOR qualified employee must protect the shove movement by:

- Visually observing the leading end of the movement to determine that switches and derails are properly lined, and the route is clear for the intended movement.
- Communicating instructions including a distance that specifies where the movement must be prepared to stop. (e.g., stop for misaligned switch, controlling speed for conditions, etc.)

Employees are encouraged to communicate additional information related to the shoving movement (e.g., close clearance conditions, stop signals, authority limits, etc.)

When communicating distances:

- Use 50 feet as a standard for one car length
- Provide instructions that allow for control of the movement (e.g., controlling speed for conditions, etc.)
- Use a number of car lengths that is no greater than the portion of track that has been determined to be clear, and represents where movement must stop for improperly lined switches/derails, on-track equipment, etc.

When communicating with a radio:

- The employee observing the leading end of the movement must inform the employee at the controls of the engine who is protecting the movement and how the protection will be provided (e.g., Conductor Smith on the ground, riding equipment, riding in vehicle, camera, etc.), and specify a distance.
- Direction will be described in relation to the front of the controlling locomotive (F stencil). Use the following terms:
  - "Ahead" to move forward
  - "Backup" to move backward
  - "Stop" to stop the movement

  Do not use terms such as "Good For", "Shove", Bring 'em this way", "That'll do", etc., in place of "Ahead", "Backup" or "Stop".

The following are required of the employee controlling the engine:

- Before beginning a shove movement, must know who is protecting the movement and how protection will be provided
- Before beginning a shove movement, must repeat by radio the instructions received from the employee providing protection.
- When moving, must verbally acknowledge radio instructions by repeating the distance communicated when more than four cars.
- Movement must be stopped within half of the distance specified unless additional instructions are received.

Employees involved in the shove movement must not engage in any activity unrelated to the shove. (e.g., unrelated communication, operating a switch not part of the intended route of the shove, etc.).

An employee is not required to be in position to observe the leading end of the movement when:

- Relieved by local instructions for tracks equipped with shove lights/ cameras.
- Relieved by special instructions specific to tracks involved.
- During GCOR 6.6 Back Up Movements.
- During pullout moves within an activated Remote Control Zone (RCZ).
  or
- Moving cars only the distance necessary (not exceeding 5 car lengths) to operate an uncoupling lever for the purpose of kicking cars. It must first be verified that the track is clear and switches and derails are lined for the movement.

When cars or engines are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.

When engaged in snow plow operations:

- One common authority may be used by both Maintenance of Way employees and the train crew when all employees are on the equipment.
- Maximum timetable speed applies unless a higher speed is authorized by the employee in charge.
- Employees are relieved from providing visual protection for snow plow being shoved.

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**GCOR 6.5.1 Remote Control Movements**—is changed to read:

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading engine in the direction of movement. The remote control operator protecting the shove movement must be the controlling operator and in position to visually observe the direction the equipment moves before initiating the movement.

Exception: After conducting a job briefing with the employee who will be protecting the shove, the controlling operator is not required to transfer control when:

- Stretching a track to ensure couplings are made.
- Separating equipment to make coupler adjustments.
- Shove is protected by a non-equipped individual, such as a utility person

When requesting pin slack, the employee uncoupling the equipment is not required to be the controlling operator

**Pullback/Stop Protection (PSP)**
When Remote Control Zone is equipped with pull back/ stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden.

**Relief of Providing Protection**
The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when a qualified employee who is a part of the RCO crew has performed the following:

1. Verify switches/derails are known to be properly lined.
2. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.
3. Once steps 1 and 2 are completed and all crew members have been briefed, the zone may be activated.

Note: These steps must be repeated each time the remote control zone is activated.

**GCOR 6.6 Back Up Movements**—is changed to read:

After obtaining permission from the train dispatcher, a train may back up on any Main Track or on any track where CTC is in effect under the following conditions:

1. The train dispatcher must verify the following within the same or overlapping limits:
   a. Another authority is not in effect unless conflicting movements are protected.
   b. A track bulletin Form B is not in effect.
   c. A Main Track is not removed from service by a track bulletin.
   d. Permission to leave a switch in the reverse position has not been granted.
2. The crew ensures movement will not:
   a. Exceed the limit of the train's authority.
   b. Exceed the train's length.
   c. Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
   d. Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before requesting or making a back up move, a job safety briefing between all members of the crew must be conducted that confirms:

- Train is intact, verified either visually or by determining that brake pipe continuity exists using end of train device or distributed power telemetry.
- Distance to be shoved. (Note: Train must not move outside of authority limits.)
- Distance from the end of the train to the end of authority limits is sufficient to accomplish the planned back up movement (E.g. 30 cars from the end of the rear car to next controlled signal or 30 cars from the end of the rear car to MP 30, where track warrant authority ends, etc.).
- Location of nearest affected road crossing in direction of movement.
- Movement will not be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before permission is granted, a job safety briefing between a crew member and the train dispatcher or control operator must determine what track authority is needed to accomplish the planned movement. If additional track authority is necessary to make the 6.6 movement, a crew member must request additional authority.

When movement is made under these conditions, Restricted Speed does not apply.

**GCOR 6.7 Remote Control Zone, A. Entering Remote Control Zone**—is changed as follows:

The 2nd paragraph is changed to read:

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated.

The 3rd paragraph is deleted in its entirety.

**GCOR 6.11 Mandatory Directive**—that part reading:

Indicate "VOID" on mandatory directive form when:

Is changed to read:

Where paper copies are used, indicate "VOID" on mandatory directive form when:

**GCOR 6.20 Equipment Left on Main Track**—A. Portion of Train Left on Main Track

That part reading:

- Set a sufficient number of hand brakes to keep the detached portion from moving.

Is changed to read:

- Secure a sufficient number of cars to keep the detached portion from moving.

**GCOR 6.21.2 Water Above Rail**—is changed as follows:

The 2nd paragraph is changed to read:

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, the NOC Mechanical Help Desk must authorize the movement.

**GCOR 6.21.3 Track Obstruction / Unusual Conditions**—is changed to read:

When a train is advised in the words, "Between (location) and (location) be governed by Rule 6.21.3", within the specified limits trains must:

- Not exceed 20 MPH HER,
  and
- Be prepared to stop for slides, rocks, washouts, debris or obstructions on the track.

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Train crews are reminded to regulate speed where visibility is limited (ex. curvature of track, lighting, weather, etc.) and must report to the train dispatcher conditions encountered, or if none are encountered, within the limits.

**GCOR 6.21.4**—The following rule is added:

**GCOR 6.21.4 Activation of Shifted Load or Dragging Equipment Detector**

When a train or engine actuates a shifted load or dragging equipment detector, and an adjacent Main Track or controlled siding may be obstructed, immediately:

- Warn other trains by radio, stating the exact location and status of the train and repeat as necessary.
- Place lighted fusees on adjacent Main Tracks and controlled sidings.
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

Warning to other movements is no longer necessary when:

- It is known adjacent Main Tracks and controlled sidings are not obstructed.
  or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent tracks.

**Train on Adjacent Track**
A train on an adjacent track that receives radio notification must pass the location specified at Restricted Speed and be prepared to stop for obstructions on the track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

**GCOR 6.22 Maintaining Control of Train or Engine**—A new second paragraph is added:

When following a train or engine on a Main Track or controlled siding, crew members must ensure they stop at least 400 feet behind the train or engine, if length of train permits.

**GCOR 6.23 Emergency Stop, Severe Slack Action, or Actuation of Shifted Load or Dragging Equipment Detector**—the part titled "**Inspection of Cars and Units**" is changed to read:

Visual inspection must ensure no derailment or damage has occurred to cars, units, equipment or track to the end of the train. If physical characteristics such as a bridge with no walkway prevent complete inspection, the train may be moved the distance necessary not exceeding 5 MPH to complete the inspection. Stop movement immediately if excessive power is required to start or keep the train moving and discontinue further inspection until a safe alternative to complete inspection is identified by either a job safety briefing or coordination through the train dispatcher.

Exception—The following trains (excluding key trains) are relieved of visual inspection required by emergency brake application if no severe slack action occurred while stopping and brake pipe pressure is restored as indicated by the caboose gauge, end-of train telemetry device (ETD) or distributed power telemetry:

- Solid loaded bulk commodity train,
- Train consisting entirely of doublestack and/or articulated spine car equipment,
- Any train where emergency application occurs above 20 MPH, or
- Any train that is 5000 tons or less.

Train types in the exception are relieved of further visual inspection after a defect is corrected, such as recoupling an air hose, and brake pipe pressure is restored as indicated by the caboose gauge, end-of-train telemetry device (ETD) or distributed power telemetry.

**GCOR 6.26 Use of Multiple Main Tracks, Supplemental Instruction**

Unless otherwise indicated in the individual subdivision special instructions, when using Main Tracks in westward or southward timetable direction, they will be numbered consecutively from right to left beginning from Main 1. When using in eastward or northward timetable direction, they will be numbered from left to right beginning with Main 1.

**GCOR 6.29.1 Inspecting Passing Trains**—"Ground Inspections" is changed to read:

**Conducting Inspections**

When a train is stopped and is met or passed by another train, a member of the crew must inspect the passing train. All crew members must remain alert and attentive while the inspection is being conducted.

If inspecting from the ground:

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.

**GCOR 6.32.2 Crossing Warning Devices (Highway/ Pathway - Rail Grade Crossings), Supplemental Instruction**

In the application of this rule, a crossing having a broken gate(s) is to be considered as having working devices when the balance of the automatic warning devices are seen to be working. Movement may proceed over the crossing at 15 MPH without stopping.

**GCOR 7.6 Securing Cars or Engines**—is changed to read:

Do not depend on air brakes to hold a train, engine or cars in place when left unattended. Engineer and conductor are jointly responsible, through a job briefing, to ensure equipment left unattended is properly secured and a sufficient number of cars have hand brakes applied to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, secure enough cars by applying hand brakes to prevent any remaining cars from moving.

**GCOR 7.7.1 Gravity Switch Moves**—is changed to read:

A gravity switch move is permitted only at locations where specifically indicated by individual subdivision special instructions or when approved by a supervisor due to circumstances such as mechanical failure, etc.

Before performing a gravity switch move, crew members must fully understand the intended movement. They must verify that the track is sufficiently clear and that switches and hand brakes are in working order.

When performing a gravity switch move:

- Not more than five cars may be handled at one time.
- Sufficient hand brakes must be manned by crew members to insure that the movement can be controlled and stopped.
- Using the hand brake on cars with shiftable loads must be avoided.
- Cars must not be allowed to couple to other equipment.

**GCOR 7.12 Movement Into Spur Tracks**—is deleted entirely.

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**GCOR 8.9.1 Testing Spring Switch**—That part reading:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop.
   - Stop and Proceed.

   or
   - Restricted Proceed.

Is changed to read:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop
   - Stop and Proceed
   - Restricting

   or
   - Restricted Proceed

**GCOR 8.19 Automatic Switches**—the following paragraph is added:

In non-signaled territory, when movement continues beyond an automatic switch signal displaying a Stop indication, train must move at Restricted Speed for two miles or until leading wheels pass the next automatic switch signal or opposing distant signal.

**GCOR 9.8 Next Governing Signal**—is changed to read:

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

This rule does not apply when a rule or previous signal indication requires movement at restricted speed..

**GCOR 9.9 Train Delayed Within a Block**—is changed as follows:

B. CTC or Manual Interlocking Limits is changed to read:

B. CTC or Manual Interlocking Limits

Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

**GCOR 9.11 Movement from Signal Requiring Restricted Speed**—is changed to read:

When a train passes a signal requiring movement at Restricted Speed, the train must move at Restricted Speed until its leading wheels have passed the next governing signal. When a next governing signal does not exist, trains operating on the Main Track must move at Restricted Speed for two miles or until leading wheels pass the opposing distant signal.

**GCOR 9.15.2 Clearing Track Permits**—the following 4th bullet is added:

- Position of hand operated Main Track switches.

**GCOR 10.1.1**—The following rule is added:

**GCOR 10.1.1 Leaving the Main Track**

Unless authorized by track and time, a crew member must notify the control operator when the train clears the Main Track unless a crew member is in position to prevent a following movement from passing.

**GCOR 10.3, Track and Time**—the instructions inside the box are changed to read:

| |
|---|
| Track and time does not authorize trains to occupy the Main Track within automatic interlocking limits. |

**GCOR 10.3 Track and Time, Supplemental Instruction**

**Requesting Track and Time**

The employee requesting track and time will state name, occupation, location and train or other identification. The employee will copy the authority granted on the form provided for that purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with "That is correct." The train must not move until the engineer understands the track and time granted.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing track and time, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator "That is correct," the employee must not occupy the track. The employee requesting track and time must contact the control operator as soon as possible and confirm with the control operator that the track and time was not received.

**GCOR 13.1.4 Cab Signals Cut In and Out**—is changed as follows:

The following sentence is deleted from the last paragraph:

If the device was not tested previously, the engineer must make a departure test prior to entering ACS territory.

The following is added after the last paragraph:

Note: Partial cut out requirements do not apply to engines not so equipped.

**GCOR 13.3.1 Cab Signal and Block Signal Do Not Agree**—the exception is deleted:

Exception—When the train dispatcher's instructions require the train to proceed at Restricted Speed, the train must comply with the train dispatcher's instructions regardless of cab signal indication.

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**GCOR 13.3.3 Movement with an Inoperative Cab Signal Device**—is changed to read:

When it is determined the cab signal device is inoperative, the train may proceed according to block signal indications. However, the train must not exceed 40 MPH until it reaches a point where a crew member can report the defect to the train dispatcher.

The train dispatcher will establish an absolute block in advance of the train.

**GCOR 14.3 Operating With Track Warrants**—is changed as follows:

The following is added to Items 1 and 2:

The location of the specific point must be indicated on the track warrant form.

The following last paragraph is added:

**After Arrival Authority**

When track warrant requires "After Arrival" of another train, the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the meeting point.

**GCOR 14.7 Reporting Clear of Limits**—the following paragraph is deleted:

When a hand operated switch is used to clear the Main Track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

**GCOR 14.7 Reporting Clear of Limits, Supplemental Instruction**

**Reporting Clear/Releasing Track Warrants**

Engineer and conductor are jointly responsible, through job briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant.

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Engineer and conductor will communicate with the train dispatcher.
- Communication will use the following format:

Conductor will state: "Conductor (Name), locomotive initial, number, (direction), regarding track warrant (Number), reports clear of (mile post/location) (Provide switch briefing when required) - Over."

Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct? - Over."

Engineer will state: "Engineer (name), (location) is correct. - Over."

**GCOR 14.9 Copying Track Warrants**

That part reading:

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

Is changed to read:

Where paper copies are used, the conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

**Item A. Transmitting Track Warrants**—is changed to read:

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.

3. The employee will repeat the preprinted and written information transmitted by the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following:

   "Track Warrant (number) to (engine ID) (direction) is OK at (time)(dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher,

   or

   If the track warrant includes after arrival, the dispatcher will state the following:

   "Track Warrant (number), to (engine ID) (direction) with after arrival of (engine ID) (direction) at (location) is OK at (time) (dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat the "After Arrival" information, OK time and dispatcher's initials to the train dispatcher.

   Note: The summary information in Items 1, 2, 3 and the after arrival information in Item 4 will be exempt from pronouncing and spelling numbers as indicated in GCOR 2.14.1, Verbally Transmitting and Repeating Mandatory Directives.

**Item B. In Effect**—the last sentence is changed to read:

Rules qualified employees may relay track warrants.

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**GCOR 14.10 Track Warrant in Effect**—is changed to read:

A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits. Before a train reports clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, a crew member must restore hand operated Main Track switches to normal position unless relieved by track warrant.

Employees reporting clear or releasing a portion of track warrant limits must state:

- Their name or other identification
- Track warrant number being released
- Limits being released

In non-signaled territory or double track ABS territory (outside of restricted limits or yard limits), a crew member will job brief with the train dispatcher about the position of main track switches and those switches operated are locked within the limits being released, referencing completion of the Position of Switch form or stating no entries required.

**Time Limit Shown**

If the track warrant shows a time limit, the train must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

**GCOR 14.11 Changing Track Warrants**—the last paragraph is changed to read:

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued showing, "Void Authority _____" and the number of the track warrant being changed.

**GCOR 14.13 Mechanical Transmission of Track Warrants, Supplemental Instruction**

**Mechanical Issuance**

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom,
- Computer generated line on the bottom listing the items checked is missing,
  or
- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

**GCOR 15.1 Track Bulletins, Supplemental Instruction**

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

**GCOR 15.2 Protection by Track Bulletin Form B**—the following are added:

**C. Stop Column**

When "STOP" is written in the Stop column, the train must not enter the limits unless instructed by the employee in charge. A red flag may be displayed at the beginning of the limits. A train within the limits at the time the track bulletin Form B takes effect, must not make further movement until instructed by the employee in charge.

**D. Entering Within Limits**

Before entering the track governed by the track bulletin Form B from any location other than the beginning of the Form B limits, obtain permission from the employee in charge.

**GCOR 15.2 Protection by Track Bulletin Form B**—that part reading:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. The employee in charge will use the following format to establish communication with the train:

Is changed to read:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. When possible, attempt must be made at least 2 miles in advance of the limits. The employee in charge will use the following format to establish communication with the train:

**GCOR 15.9 Mechanical Transmission of Track Bulletins, Supplemental Instruction**

Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

**GCOR 15.13 Voiding Track Bulletins**

**A. Voiding Track Bulletins Verbally**

That part reading:

Employee must repeat the information to the train dispatcher. If correct, the word "VOID" will be entered to indicate that portion is no longer in effect.

Is changed to read:

Employee must repeat the information to the train dispatcher. Where paper copies are used, if correct the word "VOID" will be entered to indicate that portion is no longer in effect.

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**GCOR 15.13.1**—The following rule is added:

**GCOR 15.13.1 Voiding General Track Bulletins or Restrictions**

A bulletin or restriction or an entire GTB may be voided by the train dispatcher communicating the following:

1. "Restriction (number) ____ reading ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" in the margin to the left of the restriction made void.

2. "General track bulletin No. ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" across the first page of the general track bulletin being voided.

**GCOR 18.3 Broken or Missing Seals**—that part reading:
Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the designated authority.

Is changed to read:

Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the PTC Desk.

**GCOR 18.4 PTC Cut Out**—is changed to read:
The PTC system may only be cut out or disabled when authorized by rule or when proper authorization is received.

When permitted by the Train Dispatcher, PTC Desk or other supervisor, PTC may be cut out for, but not limited to, the following reasons:

- It becomes defective, or
- It prohibits train movement that should be allowed.

When instructed to cut out PTC or to proceed without PTC functioning as intended, notify the train dispatcher of the reason and who authorized.

**GCOR 18.9 Use of Restricted Mode**—is changed to read:
Restricted Mode must be turned on before performing work events such as:

- Switching
- Pickups, setouts, etc.
- Loading/unloading of work trains under direction of MW Employee in Charge

After all work events have been completed, turn off Restricted Mode.

**GCOR 18.12**—The following rule is added:

**GCOR 18.12 Movements with Inoperative PTC System**—is changed entirely to read:

**GCOR 18.12 Movements with Inoperative PTC System**
When the PTC system on the controlling locomotive fails to initialize or becomes inoperative, except where PTC is suspended by mandatory directive, notify the train dispatcher and PTC desk.

Maximum Speeds

The following maximum speeds will apply to movements with an inoperative PTC system.

In non-signaled territory, or when operating against the current of traffic in Rule 9.14 (Movement with the Current of Traffic) territory:

| | |
|---|---|
| Trains transporting one or more loaded cars containing TIH/PIH | 30 MPH |
| All other trains | 40 MPH |

In signaled territory:

| | |
|---|---|
| Freight trains transporting one or more loaded containing TIH/PIH | 40 MPH |
| Freight trains not transporting loaded cars containing TIH/PIH | 49 MPH |
| Locomotives without cars | 49 MPH |
| Passenger trains | 59 MPH |

**GCOR 18.13**—The following rule is added:

**GCOR 18.13 Movements Without PTC**
Freight movements engaged in:

- Yard service (including switching, transfer, local, etc.),
- Assembly or disassembly of trains,
- Hostling locomotives, or
- Remote control operations,

may operate on PTC territory without PTC if the movement:

- Originates or terminates in a yard,
- Does not travel in excess of 20 miles on PTC territory in one direction,
- Does not exceed restricted speed while on PTC territory, and
- Train dispatcher is notified.

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**GCOR Abbreviations**—the following abbreviations are added:

| | |
|---|---|
| AS | Absolute Signal |
| CNT | Connection |
| EBCS | Eastbound Controlled Signal |
| EE | East End |
| EXO | East Crossover |
| ICS | Independently Controlled Switch |
| NA | Not Applicable |
| NBCS | Northbound Controlled Signal |
| NE | North End |
| NXO | North Crossover |
| POS | Protect Open Switch |
| PTC | Positive Train Control |
| RCPS | Remote Control Power Switch |
| RESTRN | Restriction |
| RL | Restricted Limits |
| RP | Release Point |
| SBCS | Southbound Controlled Signal |
| SE | South End |
| SPMS | Switch Point Monitoring System |
| SS | Station Sign |
| SW-N | Switch No |
| SW-Y | Switch Yes |
| SXO | South Crossover |
| TFND | Track Flags Not Displayed |
| TID | Track Integrity Down |
| TIWS | Track Integrity Warning System |
| WBCS | Westbound Controlled Signal |
| WE | West End |
| WXO | West Crossover |

**GCOR Glossary**—the following glossary terms are added:

**General Track Bulletin**
A notice containing track bulletin restrictions and other conditions affecting train movement.

**Hard Cut Out (PTC)**
A state of the PTC system when PTC cut out switches are placed in the cut out position.

**PTC Full Enforcement Mode**
The status of PTC when all the following conditions exist:

- The system state is Active,
- a colored track line (other than gray) exists beneath the leading end of the movement,
- maximum speed is displayed, and
- next target or "None" is displayed.

When these conditions are met, the PTC system is actively providing warning and enforcement.

**Soft Cut Out (PTC)**
A state of the PTC system resulting from selection of the cut out key on the PTC display.

**15. Currently Not Used**

**16. Currently Not Used**

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**17. PTC - Supplemental Information**

**Locomotive Consist**

At locations where locomotive consists are assembled for trains that will operate on PTC territory, a PTC-equipped, lead-qualified locomotive must be placed in lead position. At non-PTC originating locations, departure of a train that will operate on PTC territory without a PTC-equipped, lead-qualified locomotive in lead position, must be approved by the train dispatcher.

**PTC Readiness Verifications**

At locations where locomotive consists are assembled, conduct an initialization verification and departure test on the lead unit as soon as possible. The following steps can be conducted by any trained personnel with a PTC log-in. A GTB is not required to complete this process.

1. On the PTC display, select MENU 1, then select INIT.
2. When text box displays, "THIS WILL ERASE EXISTING TRAIN DATA DO YOU WANT TO CONTINUE?" select YES.
3. On the RAILROAD SELECTION screen, highlight BNSF and select ADD, then SUBMIT.
4. The display should indicate "PLEASE WAIT FOR SYSTEM CONFIGURATION". The TMC is now establishing a connection to the office.
5. If prompted to download or install new software, follow current software deployment instructions as outlined in track bulletin.
6. When the "PRESS KEY TO ACCEPT TERMS OR CANCEL" message is displayed, the office server has established a connection. Select CANCEL. If the Accept Terms screen does not display, there is a PTC issue preventing connection to the server. Contact PTC Desk for further instructions.
7. From Menu 1, select DEPART test and follow the prompts to complete the departure test. When conducting the test, ensure the automatic brake valve is placed in Suppression, and remains in Suppression until the test is complete. Placing the automatic brake valve into any position other than suppression may nullify functions required for efficient PTC system operation.

**Restricted Speed**

PTC does not enforce all requirements of GCOR 6.27 - Restricted Speed. When required to operate at Restricted Speed, PTC enforces a speed of 20 MPH.

**Unusual Conditions**

Any train experiencing a PTC Enforced Braking Event which results in an occupied locomotive stopping in a tunnel or other enclosed structure, in addition to current instructions, immediately place Enforcement Cut Out Switches located in the nose of the locomotive to the Cut Out position. If operating conditions allow, recover brake pipe and exit the location.

Notify Train Dispatcher and contact the PTC Desk immediately and be governed by their instructions.

**PTC Desk**

The PTC Desk may be contacted by radio, or telephone 817-593-5900. When necessary to troubleshoot PTC issues, contact should be established by a crew member located on the lead locomotive (when practical).

**18. Electronic Delivery of Information**

PTC initialized trains may receive the following electronically delivered directives:

- Form A track bulletins
- Form B track bulletins
- Crossing warning notifications
- Track warrants

Train crews are responsible for complying with electronically delivered directives when:

- Notified by the prompt on the PTC display,
- Contacted by the train dispatcher confirming receipt of the directive, or
- Directives(s) remain viewable on the PTC display.

When crew members responsible for complying with electronically delivered directives are not in the controlling locomotive (such as train service employees in passenger service), the engineer will communicate to those crew members the contents of new directives as soon as practical after the prompt is received and prior to reaching the directive location.

Upon receipt of a PTC directive prompt, crew members utilizing iGTB (general track bulletins delivered via the iGTB application on the iPad) must select the refresh button. If, after selecting the refresh button the information is not viewable on iGTB, information from the PTC display must be copied on the prescribed form, verbally confirmed with the train dispatcher as outlined in SSI Item 18. (B), and the engineer must have a written copy.

**Inoperative PTC**

| Directive | Train Crew Action |
|---|---|
| Form A Track Bulletin or Crossing Warning | If PTC status changes to a condition where electronic view of directives is not available on the PTC display, be governed as follows:<br>• When directives delivered to PTC have been copied and confirmed with the train dispatcher or are viewable in iGTB, GCOR 18.12 applies. or<br>• When directives delivered to PTC have not been copied and confirmed with the train dispatcher, or are not viewable in iGTB, stop train consistent with good train handling and contact the train dispatcher to verify and determine if additional directives are needed. Once verified, crew members may proceed per GCOR 18.12. |
| Track Warrant | Stop train consistent with good train handling and contact the train dispatcher. |

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**18. (A) PTC Territory**

Trains operating in a PTC active state may receive electronically delivered directives without verbal interaction with the dispatcher. (Note: this process does not apply to Form B Track Bulletins). Train crews must review as soon as practical and follow prompts for acknowledgment.

Directives that are delivered electronically via PTC will immediately be displayed onboard and protected by PTC on trains operating in a PTC active state. When any directive is voided in the system by the train dispatcher trains operating with PTC active will no longer display an associated target and the train crew may consider any directive, other than a Form B, no longer in effect. All Track Bulletin Form B restrictions remain in effect until they expire or are made void by the train dispatcher.

**18. (B) Non-PTC Territory**

Where taking charge of a PTC-equipped train, the PTC system on the controlling locomotive must be initialized. The train dispatcher will initiate communication that a directive has been delivered. (Note: this verbal confirmation process does not apply to Form B Track Bulletins). Because PTC is in a disengaged state, directives will not be enforced by PTC. When any directive is voided in the system by the train dispatcher, the directive will remain in effect until verbally notified by the train dispatcher.

**Authority**

Train crews will receive "delivery prompts" for track warrants. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will state the track warrant number, and if included, box 5 (after arrival). Train crew will confirm receipt of the track warrant to the train dispatcher by stating the track warrant number, limits (including track) and total number of boxes marked including which specific boxes are marked. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive track warrant 725-45 with a box 5 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive track warrant 725-45 from Anna to Bess on main track with two boxes marked, 2 and 5."*

If the train crew cannot confirm the directive is on the PTC display or if the information displayed is incorrect, the directive will be issued using the verbal transmission / repetition process. Dispatcher will notify the PTC desk.

**Restrictions**

Train crews may not always receive "delivery prompts" for restrictions. It may be necessary to select "view bulletins" on the PTC display to locate the restriction being confirmed. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will contact the train crew and state the restriction number or milepost(s) that restriction applies to. The train crew will confirm receipt of the restriction to the train dispatcher by stating the restriction number (where applicable), milepost(s), speed (where applicable) and track on which the directive applies. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive form A track bulletin 1355 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive form A track bulletin 1355 from MP 181.0 to MP 181.5, 10 MPH on main track ".*

**19. Currently Not Used**

**20. Currently Not Used**

**21. Currently Not Used**

**22. Remote Control Operations**

- Employees assigned to a remote control crew are governed by the BNSF Remote Control Operating Instructions and must have a current copy accessible while on-duty.
- Only certified operators or students who have been trained in remote control operations may operate an Operator Control Unit of a Remote Control Locomotive.
- Division Timetable Special Instructions will designate limits of Remote Control Zones (RCZ). RCZ signs may also be posted at zone access locations.
- The Remote Control Operator in control of a Remote Control Locomotive must be notified of any track removed from service or working limits established for the protection of another craft.
- When a remote control operations system radio broadcasts "Operator Down", movements on adjacent tracks must move prepared to stop in half the range of vision until the safety of all members of the remote control crew is confirmed.

**23. Automatic Cab Signals**

Cab signal equipment must be cut out except on suburban equipment on the Chicago Subdivision.

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**24. Switch Tender Instructions**

The train dispatcher and switch tender are required to have a job safety briefing before a switch tender acts on instructions from the train dispatcher. Following a shift change, another briefing is required between the train dispatcher and switch tender, which will include discussion of pending instructions and determination if the instructions are still correct.

When communicating concerning approaching train movements, use engine initials and number and direction. Do not use only train symbols or blanket terms such as "westbound or eastbound trains."

The dispatcher will issue specific instructions to the switch tender. The switch tender must repeat the instructions to the train dispatcher and receive confirmation of being correct, before acting on the instructions.

For example: After confirming with the train dispatcher that BNSF 1234 West will be the next train to line from Main Track 1 to Main Track 2 at Robinson Spur, the switch tender is then to call the BNSF 1234 West and verify the train has authority from Main Track 1 to Main Track 2 at Robinson Spur. After verification has been received from the BNSF 1234 West, and after the switch tender has visually identified the BNSF 1234 West, the switch tender will line the route for the movement. After the movement is clear of the switch, the switch must be lined and locked in the normal position.

When necessary for the train dispatcher to change routing instructions to the switch tender after authority has been granted to a train, it is the responsibility of the dispatcher to communicate directly with the switch tender. Another authority over the switch that the tender is in charge of cannot be issued until the dispatcher has informed the switch tender of the change.

When a switch tender is at a remote location, away from a depot and/or base station radio, the switch tender must check with dispatcher when arriving at such location to confirm they can clearly communicate. If the switch tender becomes aware of any radio communication problems, the train dispatcher must be notified. The chief dispatcher will make particular arrangements when communication problems are evident.

While in charge of a switch, the switch tender must not leave the switch unattended unless it is lined and locked for normal movement.

The train dispatcher's transfer must include switch tender locations and pending instructions from the train dispatcher to the switch tender.

**25. FRA Random Drug Testing**

TY&E employees selected for FRA Random Drug Testing must show the start time of the Random Drug Test (RDT) in the remarks column of their timeslip. Start time of RDT begins when a supervisor notifies the employee that they are selected for RDT. A stop time on RDT is necessary only if different from their off-duty time.

**26. Verification of Rules Examination**

Employees required to pass rules examination must have a current rules examination card when issued, or engineer's certificate in their possession while on-duty.

**27. Cars Set Out Bad Order**

When practical, a car set out between terminals due to mechanical defect should be left where it can be accessed by truck for making repairs. If the car set out is a military shipment or Rail Sensitive Security Material (RSSM), the Resource Operation Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3. The PBX/MRAS radio system may be used for this communication.

**28. Grade Crossing Accidents**

The following information is designed to serve as post grade crossing accident guidelines. It is designed to provide the utmost in safety for you and your crew.

After the accident has occurred and the train is stopped:

A. Ensure the safety of crew members, accident victims, and the public.
B. Meet the requirements of GCOR 6.23.
C. Contact the dispatcher or any other available radio contact and advise:
    1. Exact location,
       and
    2. What emergency services are needed. Be sure to include alternate routes for the emergency vehicles if your train is blocking road crossings.
D. Assess the damage to the vehicle and train to determine if there is any danger to your crew or the public.
E. Assign a crew member to monitor a radio to provide further information for emergency assistance.
F. If it is safe, render assistance to accident victims. It is important not to move the victim unless a life threatening situation exists.
G. Turn "off" the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless necessary to permit emergency vehicles to access the accident scene through a blocked crossing, etc.
H. Only give information to:
    1. The investigating officer,
       or
    2. Authorized company managers.
        a. Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can recall.
        b. Record the badge number and name of the investigating police officer at the scene. Witness with the officer that the headlight is on, and that the whistle and bell on lead unit are in proper working order. Also, note that the crossing warning devices are functioning.
I. Assign a crew member to verify the accuracy of the train list. Save all train lists, track warrants, track condition messages, and other pertinent documents for the proper BNSF managers.
J. Ascertain that no part of your train is derailed and that it will be safe to proceed once released by the investigating officer.
K. Personal counseling will be available to any crew member who might experience post-accident trauma.

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**29. Trains Performing Track Maintenance Work**

The conductor is in charge of and will be responsible for all work train movements. The safety of the overall train operation is the responsibility of the entire train crew. During work activities the engineer may accept train movement instructions only from a designated individual identified in the job safety briefing before commencing work. The individual designated to provide train movement instructions to the engineer will be a member of the train crew except during work activities requiring precision train movement, such as rail recovery. An individual of the work group may be designated to communicate directly with the engineer for precision train movements under the supervision of the conductor.

The engineer will respond to all Stop signals.

When Maintenance of Way, Signal, Structures, Mechanical or other work groups are involved with the activities of the work train (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.), a coordinator from such group must be designated. The train crew will communicate with the designated coordinator concerning all train movements and work activities.

An initial job safety briefing will be conducted before commencing work and additional job safety briefings must be held at intervals not to exceed four hours until the end of the tour of duty. In addition, when there is a change in assignment or a significant delay in activities has occurred, a job safety briefing must be conducted before commencing work. Employees who subsequently work in the vicinity of a work train after such job safety briefings have been held, must not commence work until they have received a job safety briefing from the designated coordinator regardless of authority received to occupy the area. The conductor is responsible to ensure that no work activity begins until the required job safety briefings are complete.

Job safety briefings must include applicable operating rules, safety rules, special instructions and any other work-specific information. The designated coordinator is responsible for communicating impending train movements to the work groups under his control.

All employees assigned to a work train and/or its activities are responsible to be on the lookout for train or track car movements at all times. Lookouts will be utilized when necessary and all movements must be fully protected.

In signaled territory, when at the intended work location and before performing work associated with track maintenance (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.) on a Main Track or Siding the conductor must:

- Notify the train dispatcher of the milepost limits where the work will be performed.
- Notify the train dispatcher when the work has been completed.

**30. Track Condition Messages**

Track condition messages (TCM) may be issued by train dispatchers to cover restrictions that affect movements on tracks governed by GCOR/MWOR 6.28, or any restriction not normally covered by a track bulletin restriction.

Restrictions shown on a track condition message may be cancelled verbally by the train dispatcher.

Authority can be given by a train dispatcher or supervisor to enter a track shown to be out of service on a track condition message.

When a track warrant indicates a track condition or train message is to be received, conductor is responsible for securing those messages necessary for movement of their train. Track condition messages must be retained and complied with on all trips made during the tour of duty on which they were received.

**31. Securing Track Warrants/General Track Bulletins**

When reporting for duty at initial terminal, a crew member will secure track warrants, track bulletins, and track condition messages or general track bulletin, unless otherwise instructed. A relief crew member must contact the dispatcher before departing to determine if additional documents are required, and advise if all crew members are present and ready to depart.

If the identifying unit is not shown correctly on the address line, contact the train dispatcher and correct the address line before departing the initial station.

**32. Currently Not Used**

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**33. Flood, Excessive Wind, Tornado, Cold Weather and Earthquake Instructions**

**Observations by Train Crews Associated with Flood/High Water**

Instructions for observations, or when otherwise notified by the train dispatcher, of flood/high water with or without a flash flood warning:

| Conditions Observed Associated with Flooding/High Water | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Water over rail | Immediately stop train, consistent with good train handling. Report condition to Dispr. After stopping for these conditions, do not move the train until further instructions are received from maintenance personnel. | | |
| Surface irregularity | | | |
| Washout | | | |
| Side scour | | | |
| Erosion at piers, footing, dump planks and head walls of bridges | | | |
| Debris against bridge with active water flow | Do not exceed 40 MPH until entire train has passed the condition. Report to Dispr. | | |
| Turbulent water | Do not exceed 30 MPH until entire train has passed the condition. Report to Dispr. | | |

Instructions for observations of flood from a stream or river near BNSF track, with or without flash flood warning, or when otherwise notified by the train dispatcher of flood/high water:

| Water Observed Reaching Bottom of Ballast Line (Figure 1 Below) | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Standing Water | Report to Dispr | | |
| Moving Water | Do not exceed 30 MPH until entire train has passed the condition/warning limits and report to Dispr. | | |
| **Water Observed Reaching Top of Ties (Figure 1 Below)** | | | |
| Standing Water | Do not exceed 50 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 30 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 40 MPH until entire train has passed the condition/ warning limits. Report to Dispr. |
| Moving Water | Do not exceed 20 MPH and be prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits. Report to Dispr. | | |

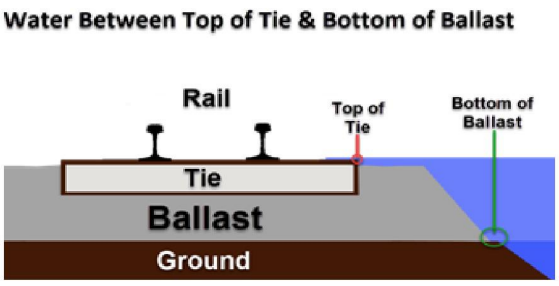



*Figure 1 - Top of Tie and Bottom of Ballast*

**Flash Flood Warning**

Weather information received by BNSF from Accu-Weather Enterprise Solutions, Inc., is categorized as a "Warning" when it describes conditions that require immediate action by the train dispatcher to notify train crews of imminent danger. These warnings are immediately distributed to the relevant train dispatchers. When Accu-Weather issues a "Flash Flood Warning", the dispatching center will immediately advise all involved trains of the specific conditions.

Flash Flood Critical Areas are designated in the Division Timetable. Division Engineers will identify "critical" areas by subdivision, segmented by mile post locations based upon their susceptibility to flooding or their history of being prone to washouts or side-scour wash.

Instructions for movement of trains when notified of flash flood warning:

| Flash Flood Warning | Passenger Trains | Key Trains | All Other Trains |
|---|---|---|---|
| **Critical Area** | Do not exceed 20 MPH through critical area limits and be prepared to stop for slides, washouts, debris, track surface irregularities or obstructions on the track. | | |
| **Non-Critical Area** | Do not exceed 50 MPH through limits identified in the warning. | Do not exceed 30 MPH through limits identified in the warning. | Do not exceed 40 MPH through limits identified in the warning. |
| *Additional restrictions, including a requirement to stop the train, may apply if flooding/high water conditions are observed by the train crew.* | | | |

The Flash Flood Warning restrictions will remain in effect until the track has been inspected and employee performing the inspection advises the train dispatcher that the applicable restriction is canceled. If the Flash Flood Warning limits include locations identified as being "critical," these areas will be inspected on a priority basis as directed by the dispatching center.

Train dispatchers will continue to issue Flash Flood Warnings until the track has been inspected and the Flash Flood Warning expires or is canceled by Accu-Weather.

**Local Observations by Maintenance Personnel**

When local maintenance personnel become aware of current conditions that might produce flash flooding that could result in damage to BNSF track or structures, they will:

- Immediately place the speed restriction described above on the affected route.
- Inspect the track for washouts, side-scour wash, surface irregularities and/or water over the rail.
- Carefully inspect bridge foundations and drainage structures, with careful attention to bridges with mud sills, for erosion behind dump planks and head walls, erosion around piers and footings, and obstructions from drift and debris.
- If water level, turbulence, or other conditions make a thorough inspection impossible at the site of such a bridge, operations of all trains will be reduced to no more than 20 MPH and prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits until it is possible to make a proper inspection.
- If, during the initial track inspection, there is any doubt about the safety of train operations over bridges, a qualified Structures employee must be called at once, and any speed restrictions that have been placed on bridges will not be lifted until authorized by the Structures employee.
- Track and bridge foremen must continue to patrol past their respective territories if an adjoining territory is likely to have been damaged, and such damage might not have been discovered.

**Excessive Wind Instructions**
When wind warnings are received meeting the wind speed criteria, the train dispatcher will make a general radio broadcast regarding the High Wind Warning over the radio(s) nearest the affected area and then will notify all affected trains and employees with movement authority providing time and limits of the expected high winds. The term "until traversed" may be used in place of communicating the expiration time of the warning when notifying trains and MW authority holders of wind warnings. Until traversed means the rear of the train is clear of the limits. The following table governs movement of trains within or entering the High Wind Warning limits when the general radio broadcast is received:

| Wind Speed | Passenger Trains (includes Amtrak, commuter trains and freight trains consisting entirely of business cars) | Light engines, empty bulk commodity tank car unit trains containing loaded buffer cars (if equipped) weighing 75 tons or greater, loaded ribbon rail trains and loaded bulk commodity unit trains as defined in the Air Brake and Train Handling Rules Glossary. | Trains handling cars with two empty containers stacked on top of one another (as indicated on train list) | All other trains |
|---|---|---|---|---|
| 51 to 60 MPH | 40 MPH* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |
| 61 MPH or greater | Staging requirements* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |

**Staging Requirements:**
Affected trains and equipment may proceed not exceeding 20 MPH pending notification of a staging location (e.g. station, siding or location with double crossovers) as directed by the train dispatcher to allow trains not affected by the wind warning to pass.

* When local weather conditions are observed not to be as severe as the wind warning indicated and these conditions would not impact safety, an employee making the observation will advise the train dispatcher of the local conditions. If the employee advises local wind conditions are 50 MPH or less, with chief dispatcher authority the train dispatcher may grant permission for the passenger trains restricted to 40 MPH and other affected trains to operate at maximum authorized speed. Observations of local wind conditions can be made by any of the following:
- Crew member on an affected train
- Railroad employee in the field at location of warning equipped with a wind monitoring device (anemometer)
- Local tower mounted wind monitoring device (anemometer)
- Utilizing BNSF Railway WIND App

**Tornado Watch and Warning Instructions**
Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile and extend the length of a city block to 300 miles. The greatest potential for such storms usually exists from April through September.

When tornado watch or warnings are received, the train dispatcher will notify all affected trains and employees with authority in the area providing the tornado watch or warning information.

A "tornado watch" means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4-6 hours before the conditions may occur.

During a tornado watch, all train movements and yard activities will continue, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud, or combination of the above. When a crew knows they are in a watch area, the radio on a locomotive or a packset should be used to monitor instructions and information to and from the train dispatcher. In the event a crew spots a funnel cloud, the train dispatcher should be immediately notified, consistent with the crew's safety.

If a train or yard assignment has an occupied caboose, upon being notified of a tornado watch, the occupants of the caboose should immediately move to the locomotive consist. While in the process of moving to the locomotive, if the tornado watch turns into a "tornado warning," or a funnel cloud is spotted, those affected should seek shelter in a nearby ditch, ravine, culvert or in a depression. If none of these are available, lie face down on the ground with hands over the head away from the caboose or cars in the train.

A "tornado warning" means a tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains and crews appraised of limits of tornado warnings. Train crews are to follow instructions as follows:

During a tornado warning, all train movements and yard activities must stop. Any train enroute will stop and employees should seek appropriate shelter consistent with the safety of all involved, avoiding the stopping of a train on a high bridge, across railroad and highway crossing at grade, or anywhere the presence of a train could be a hindrance.

After the tornado warning has expired:
- If determination is made that the path of the tornado crossed the tracks at the location or in the immediate vicinity of the train, crew members must inspect their train before moving to determine if any damage or derailment has occurred to the train or if the track structure has been damaged.
- All trains within or entering the tornado warning limits may proceed, prepared to stop when approaching bridges, culverts, or other points likely to be affected until relieved by the dispatcher. The train dispatcher must be advised immediately of damage or unexpected conditions.
- The train dispatcher must restrict trains as prescribed in the second bullet, until an inspection has been completed by division employees or all of the limits of the tornado warning have been traversed by a train and it is confirmed by the train crew(s) that no damage or unexpected conditions were observed.

**Cold Weather Restrictions:**
The correlations that exist between rail service failures, temperature, train axle load, track and equipment conditions, and train speed are complex and involve many factors including equipment and track component design and material properties, their relative wear conditions, and the rail/wheel interaction for various traffic mixes and operating conditions.

In order to maximize safety with regard to extreme temperatures and temperature changes, rail laying temperatures and weather extremities across our railroad have been considered. In that effort, the railroad has been divided into two regions as follows:

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**Region 1** contains the following divisions:

| | |
|---|---|
| California | All subdivisions |
| Chicago | Beardstown and Yates City subdivisions |
| Heartland | Afton, Amory, Birmingham, Cherokee, Cuba, Ft. Scott, Hannibal, River, Thayer North, and Thayer South subdivisions |
| Kansas | Arkansas City, Douglass, Emporia, Hereford, La Junta, Panhandle, Strong City, and Topeka subdivisions |
| Montana | Kootenai River subdivision from MP 44.0 to Sandpoint Jct only |
| Northwest | All subdivisions |
| Red River | All subdivisions |
| Southwest | All subdivisions |

**Region 2** contains the following divisions:

| | |
|---|---|
| Chicago | All subdivisions excluding Beardstown and Yates City |
| Heartland | Bayard, Council Bluffs, Creston, Napier, Omaha, and St. Joseph subdivisions |
| Kansas | Boise City, Dalhart, and Twin Peaks subdivisions |
| Montana | All subdivisions excluding that part of Kootenai River subdivision from MP 44.0 to Sandpoint Jct |
| Powder River | All subdivisions |
| Twin Cities | All subdivisions |

**Cold Weather Train Speeds:**
The Engineering Department has identified two factors which require Cold Weather Train Speeds---Low Temperature Threshold and Temperature Differential Threshold, as follows:

**Low Temperature Threshold:**
In Region 1, this threshold is 0 degrees Fahrenheit.
In Region 2, this threshold is -20 degrees Fahrenheit.

Unless further restricted by individual subdivision Special Instructions, be governed by the following:

When ambient (air) temperature drops below the Low Temperature Threshold trains must not exceed the following speeds:

In non-signaled territory:
40 MPH for all trains.

In block signal system limits:

| | |
|---|---|
| Trains 100 tons per operative brake and greater. | 40 MPH |
| Key trains | |
| Trains less than 100 tons per operative brake. | 50 MPH |
| Passenger trains, Z-symbol intermodal trains, or single level loaded intermodal trains. | 65 MPH |

If in doubt as to the temperature, contact the train dispatcher. Notify the train dispatcher when your train is restricted due to this requirement.

These restrictions remain in effect until the ambient (air) temperatures rise above the Low Temperature Threshold.

**Temperature Differential Threshold:**
In Region 1, this is any temperature of 50 degrees Fahrenheit or warmer that falls to 10 degrees Fahrenheit or colder within 24 hours.

In Region 2, this is any temperature of 40 degrees Fahrenheit or warmer that falls to 0 degrees Fahrenheit or colder within 24 hours.

The train dispatcher will make notification to trains that temperature has exceeded the Temperature Differential Threshold. When so notified, trains must observe Cold Weather Train Speeds, by Region, as shown above. The Engineering Department will perform a track inspection, reporting results to the train dispatcher. If no further restrictions result from the track inspection, the train dispatcher will verbally notify the trains affected.

Be aware that Cold Weather Train Speeds may still be required due to Low Temperature Threshold. In other words, once track inspection is completed following a Temperature Differential Threshold, the ambient (air) temperature may still be below the Low Temperature Threshold, requiring that Cold Weather Train Speeds must still be observed.

However, if the ambient (air) temperature is above the Low Temperature Threshold and no further restrictions resulted from track inspections, observance of Cold Weather Train Speeds is not required.

**Determining Ambient Temperature**
When referring to a subdivision timetable for extreme air temperature operating instructions, be governed by the following:

- Ambient air temperature readings may be obtained by train crews utilizing any local means available such as field personnel, track side warning detectors, yardmasters, temperature displays from such sources as banks, etc.
- When unable to determine the ambient air temperature utilizing local methods, contact the train dispatcher who will determine ambient air temperature at the closest available location utilizing the AccuWeather website or other available means.

**Earthquake Instructions**
When an earthquake is reported, the train dispatcher will do the following: (See Decision Table, next column)

1. If the magnitude or epicenter are unknown, instruct all trains within 150 miles of the reporting location to “proceed at Restricted Speed due to earthquake conditions.” An acknowledgment must be obtained from each train or engine receiving these instructions.
2. Once magnitude and epicenter are known, the following inspection criteria will apply:
   - If magnitude is less than 5.0, no inspection is required.
   - If magnitude is 5.0 or greater, response will depend on the group of states and provinces within which the epicenter is located and the following criteria will apply within the designated radius from the epicenter.

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| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| Less than 5.0 | No Inspection Required | N/A | N/A | N/A | N/A |
| 5.0 to 5.49 | Trains proceed at Restricted Speed until signals have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 5.5 to 5.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 6.0 to 6.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 150 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 50 Miles | 80 Miles | 150 Miles | 80 Miles |
| 6.5 to 6.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 220 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 70 Miles | 140 Miles | 220 Miles | 140 Miles |
| 7.0 to 7.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 400 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 100 Miles | 300 Miles | 400 Miles | 300 Miles |
| 7.5 and above | Trains stop until instructed to proceed after inspection of track, signals and bridges completed. | As Directed* | As Directed* | As Directed* | As Directed* |

* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

Group 1: California and Baja California, Mexico
Group 2: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico
Group 3: Area east of Group 2
Group 4: Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

**35. Switching and Handling Business Cars**

a. Business Cars must be handled as outlined in accordance with GCOR 7.3, 7.6, and 7.9.
b. Air Brakes—The Business Car air brake system must be connected to the locomotive and the automatic air brake used in controlling movements during switching.
c. Coupling—When coupling into Business Cars, Business Car equipment, or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. Business Cars must not be cut off while in motion or no car moving under its own momentum should be allowed to couple to them.
   Note: Business cars being added to the rear of trains must be performed by a separate locomotive (switch engine) with coupling not to exceed 1 mph. Do not attempt to make a coupling with the rear of the outbound train onto the business cars being added.
d. After Coupling—Once the coupling is made to the Business Car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communication connections.
e. When cars are to be coupled to the observation end of BNSF Business Car 30 (Glacier View) and Business Car 32 (William B. Strong), the car next to the Business Car must be an empty flat, gondola or other type of car with a low profile.
f. 480 Volt electrical jumper cables between Business Cars or any other car so equipped will be considered to be energized until applicable lockout/tagout procedures confirm connections are de-energized. All connections and disconnections are to be performed by authorized Mechanical Personnel Only.
g. Cars are to be considered occupied at all times whether they are moving in the train or parked.
h. When cars or trains are parked, protection must be established as outlined in GCOR 5.12. Local Transportation Department will coordinate with local Mechanical Department to provide required protection.
i. White “Occupied Camp Car” signs will be available on Business Cars through Business Car personnel.
j. All hand brakes must be fully released before moving Business Cars. If a hand brake is not accessible on an enclosed vestibule, the on board Mechanical Rider or Mechanical Supervisor must be contacted to allow access or verify that hand brakes have been released.
k. Business Cars cannot be moved until vestibule steps are raised. Vestibule steps must not be lowered until Business Cars have come to a complete stop.

**36. Instructions for Handling Continuous Rail**

(Excluding articulated loads of 80 ft. length rail or less) Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by ABTH Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the “rail” cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled “Buffer/Idler” in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BNSF 920119 through BNSF 920173 , BNSF 920230 through 920249, and BNSF 920280 through 920299 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

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**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
   - Must be handled in special service.
   - Must not be required to make setouts and pickups enroute.
     - Exception: When authorized to operate two loaded rail trains together, splitting of the trains is permitted.
   - Must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)
   May be handled in trains other than special service under the following conditions:
   - Rail train must be on head end.
   - Train length limited to 64 cars.
   - Should not be required to make setouts and pickups enroute.
   - Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
   - If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative enroute, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
   - Strobe lights at each end ramp car must be observed frequently enroute. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
     a. If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
     b. If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.
   - If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

   The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolyte batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

   The “ramp or tunnel” strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

   To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute; and fully charged batteries will operate them for about sixteen hours.

   The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

   Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

   At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**

Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4” x 4” hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**

When handling empty ‘rail train’ blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car.

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**37. Key Train and Key Train Commodity Securement Requirements**

Do not leave a Key Train or rail cars meeting the Key Train definition unattended on a main track or siding unless permitted by the train dispatcher.

The train dispatcher may only grant permission to leave the train or car(s) at locations specified by timetable/special instructions or when otherwise necessary, after consulting with NOC-General Director Transportation, Corridor Superintendent, Assistant Corridor Superintendent, or Chief Dispatcher to evaluate operating circumstances.

When permission to leave the train or car(s) is received from the train dispatcher:

- Job brief between members of the crew to review all applicable securement requirements.
- Secure equipment as required by all securement requirements of the employing railroad.
- Include the following in a job safety briefing with the train dispatcher, who will verify information is provided:
  - Tonnage and length of train (or total number of individual cars) left unattended,
  - Grade of track at the location as indicated by timetable grade chart.
  - Whether equipment secured is located on curve or straight track,
  - Any inclement weather conditions (e.g., precipitation, high wind),
  - Total number of hand brakes applied,
  - Confirmation the train or car(s) is secure. Communication to include statement, "Conductor and engineer agree securement requirements have been met."

Note: These requirements do not apply when a portion of the train or car(s) is left properly secured and the on-duty crew is:

- Picking up, setting out, or repositioning cars at an industry,
- Switching cars to/from tracks adjacent to main track or siding,
- Adding, removing, or repositioning locomotives, or
- Moving part of a train when doubling a hill or cutting crossings.

**38. De Minimis Territory**

De minimis territory carries a minimal quantity of PIH/TIH materials and must meet certain criteria related to annual tonnage, grade, train spacing, and volume factors including:

- Fewer than 100 loaded cars containing PIH/TIH materials per year, and
- Two or fewer trains per calendar day carrying any quantity of PIH/TIH (loaded and residue/empty).

Prior to operating on de minimis territory train crew must notify the train dispatcher if carrying any quantity of PIH/TIH materials (loaded and residue/empty).

Maximum speed of trains carrying any quantity of PIH/TIH materials on de minimis territory is 40 MPH.

**De Minimis Territories**

| Division | Subdivision | Limits |
|---|---|---|
| Red River | Conroe | MP 77.0 to MP 152.2 |
| Southwest | El Paso | MP 936.1 to MP 1152.5 |
| | Phoenix | MP 135.0 to MP 181.2 |
| Powder River | Casper | MP 458.9 to MP 513.1 |
| Montana | Great Falls | MP 37.3 to MP 97.0 |
| Twin Cities | Aberdeen | MP 704.6 to MP 777.0 |
| | Noyes | MP 0.0 to MP 85.0 |

**39. Train Inspection Due to Track Indication**

A BNSF or foreign line carrier crew instructed by the train dispatcher/control operator to inspect their train due to track indication(s) must promptly stop the train consistent with good train handling procedures and inspect both sides of the entire train. During inspection, particular focus must be given to wheels, axles, trucks or other parts of the train that may cause track damage.

When conditions permit, inspection is to be performed while the train is moving, not exceeding 5 MPH to afford the inspector opportunity to hear a defect such as a broken wheel. To complete inspecting the entire train, inspection may also be performed while backing up not exceeding 5 MPH when all requirements of GCOR 6.6 (Back Up Movements) can be met.

Any side or portion of the train that cannot be inspected while the train is moving must be inspected while the train is stopped. Discontinue inspection if it cannot be completed safely until an alternative is identified by job safety briefing or coordination through the train dispatcher/control operator and/or supervisor.

Notify the train dispatcher/control operator of any defects and when inspection is complete.

**40. Rear End Restricted Cars**

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

**41. Car Identification B-End**

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Multi-platform Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

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**42. Currently Not Used**

**43. Signal Awareness/Position of Switch Form**

Signal awareness and Position of Switch Forms must be completed when operating on subdivisions where PTC is not in effect, or when operating on territory where PTC is in effect and train is not PTC equipped.

Note: On PTC active trains where the PTC system becomes inoperable enroute, Signal Awareness and Position of Switch Forms are not required to be completed.

Subdivision-specific signal awareness/position of switch forms available at on-duty points must contain at least the minimum requirements shown on the standard form. These forms may contain additional subdivision-specific information as approved by the Division General Manager. When subdivision specific signal awareness/position of switch forms are not available, crew members may request a standard form be included with the GTB. When required, in addition to observing and calling signals as required by GCOR 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects, yellow or yellow-red flags and trackside warning detector exceptions must be recorded.

Record the following:

- CLEAR signals - Name or aspect.
- All other signals - Name or aspect of the signal, the train speed and time signal passed.
- Flags - Name and location of each flag, the train speed and time flag passed.

When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (outside of restricted limits or yard limits) a crew member must record:

- Name and location of hand operated main track switches, switch point locks, and derails operated.
- Name and location of hand operated main track switches left in reverse position.
- Time and initials of employee operating the main track switch, switch point lock or derail.
- Time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form.
- Entry of appropriate box number when switch is left in reverse position.

Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail. The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. If not practical for both the conductor and engineer to initial the form, after a job safety briefing, the person filling out the form can enter the other initials on the form. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, when completion of Position of Switch Form is required and operating in non-signaled territory or Double Track ABS territory (except in Restricted Limits and Yard Limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position." If radios become inoperable, all members of crew must job safety brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

Standard forms:

Signal Awareness Form (Location to Location)

Date:_____ Conductor:_____ Engineer:_____

Train Symbol:_____

| Block System Limits | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Signal Location<br>Detector Exception | Signal Name | | | | | | *Speed | *Time Passed<br>Time at Required Speed | Flag Location and Name |
| | Clear (Mark X) | Approach Medium (Mark X) | Approach (Mark X) | Stop and Proceed (Mark X) | Stop (Mark X) | Other (Mark X) | | | |
| Examples | | | | | | | | | |
| CP 5325 | X | | | | | | | | |
| CP 5332 | | | X | | | | 40 MPH | 1545<br>1548 | |
| WSS Anna | | X | | | | | 60 MPH | 1715 | |
| | | | | | | | | | |
| TWD MP 566.5 | Exception - Main 1, Hot Journal, Axle 45, Right side | | | | | | | | |

*It is not required to indicate speed and time for CLEAR signals.
The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting
Y - Yellow Flag, Y/R - Yellow-Red Flag

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| Position of Switch/Flag Location | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subdivision(s) | | | | | | | |
| Flag Location | Flag Name | MPH | Switch/Derail/Switch Point Lock Name and Location | Time/ Initials Operated | Time/ Initials Restored | Engineer's Initials | Conductor's Initials |
| Examples: | | | | | | | |
| MP 21 | Y | 30 | | | | | |
| | | | W House Track SW Bess | 1800 LGW | 1935 LGW | KDW | DET |
| | | | ESS Anna | 2100 LGW | Box 13 | KDW | DET |
| The following abbreviations may be used: Y - Yellow Flag, Y/R - Yellow-Red Flag | | | | | | | |
| Conductor Signature: | | | | | | | |

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)
  - Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
  - Place in company or US mail for handling.
- Notify the train dispatcher of the near collision providing as much information as possible. The dispatcher will notify the ROCC.

Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF Police personnel or to the Resource Operations Call Center at 1-800-832-5452.

**45. Network Operations Center Notification Requirements**

**Procedures for Contacting Help Desks**

- Train Dispatcher - Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an HTD/ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Chief Dispatcher - For Mechanical Related Service Interruptions (SIs), must make sure that the correct lead locomotive ID, ETD, cars, etc., are correctly reported when generating a service interruption in SIDOL.
- Mechanical Help Desk - After initially recording and providing general information about defective locomotives, cars, or an HTD/ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Train crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

Note: At terminals, locomotive and/or HTD/ETD defects (on either ROAD or YARD locomotives) must immediately be reported to local supervision the Mechanical Help Desk. A bad order tag must then be attached to the ETD to prevent subsequent use before repairs can be made and be governed by local supervision on where to place bad ordered ETD.

- Bad Order ETD Handling Between Terminals- Train crews who have a bad order ETD removed from their train must open an ETD defect with the Mechanical Desk, attach a bad order tag to the ETD, and either turn over the bad order ETD to the mechancal responder on site or if no mechanical responder is assisting train, transport the bad order ETD in the front portion of the cab of the lead locomotive. When transporting, ensure the ETD is placed to where a tripping hazard will not exist while entering and exiting the locomotive cab. Upon reaching the terminal, the train crew must contact and be governed by local supervision on where to place the bad ordered ETD. Train crews being relieved enroute must notify relief crew of bad ordered ETD placed in the cab for their handling upon reaching terminal.

Before repositioning of the lead locomotive in a consist, train crews must contact the Mechanical Help Desk to check lead qualification status of other locomotives in the consist to determine which may be used as a lead locomotive.

The Mechanical Help Desk may be contacted by phone at:

Operations North-817-352-2840, Co. Line 8-352-2840
Operations South-817-352-2836, Co. Line 8-352-2836

Service Support-In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting:
BNSF company line-8-593-7610
Toll-free line-800-549-4601
BNSF fax line-8-593-7615
Fax toll-free line-800-234-1341

Interchange reporting:
BNSF company line-8-593-7640
Toll-free line-800-206-3846
BNSF fax line-8-593-7645
Fax toll-free line-800-223-6757

**46. Special Car Handling Instructions (SCHI)**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

| CODE | DESCRIPTION |
|---|---|
| AG | Armed Guard Service |
| AV | Annual Volume |
| BH | Bad Order Home Shops |
| BN | If Bad Order Notify Shipper |
| BT | Bare Table Flat |
| B1 | Bad Order |
| B2 | Cleaned (swept), Holes in floor 1 in. to 6 in. |
| CA | Moving to a Customer Demand |
| CB | CARB (See Note 3) |
| CC | To Be Cleaned and Conditioned |
| CD | Condemned Car (See Note 1) |
| CI | Customs Inspection |
| CO | Coload Manifest Car |
| CR | Empty Coal Car Moving as Revenue |
| CS | Customer Storage |
| CU | Customer Stage |
| CY | Certification That This Equipment is for Recycling |
| DB | Distributed Van Bad Ordered |
| DH | Do Not Hump |
| DI | Redistribute at Destination |
| DK | Do not couple to double shelf coupler cars |
| DN | Shipper's Authority Required for Diversion |
| DO | Delivery Order Shipment |
| DR | Drop Yard |
| DS | Do not spot for loading other than hazardous last contained. |
| DT | Distributed Intermodal Equipment |
| DU | Do Not Uncouple |
| DV | Unit has been diverted |
| EC | Speed Restriction 55 MPH |
| EH | Embargo Hold |

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EL ..... Empty Container Mechanical Lock
EM ..... Hold for Equipment Management
ER ..... Return Empty Via Reverse Route
ES ..... Expedited Service
EW ..... Hold Early Warning
FA ..... Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB ..... Automobiles Headlights Facing B (Brake End) of Autoveyor
FM ..... Fumigate Car Now
FP ..... Fumigation Placards Applied
HA ..... Cars Held for the Customer in Bond Pending Customs Authority
HB ..... Hold for Billing—Mini Waybill Indicating Industry to Bill
HC ..... Hold for FMC Redistribution
HD ..... Cars Held for Customer Diversion
HE ..... Head End Only
HF ..... Car Held for BNSF Rail Clearances (High Wide)
HG ..... Cars Held for BNSF Pending Customer File Information
HH ..... Cars Held for Overload Condition
HI ..... Hold for Inspection
HJ ..... Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK ..... Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL ..... Excessive Dimension
HM ..... Moving in ISO Tank Container
HN ..... Cars Held for Specified Local Conditions, **Restricted Usage
HO ..... Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR ..... Cars Held for Customer Furtherance Instructions After Arrival at Destination
HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement
HT ..... Heat Car
HV ..... High Value Shipment
HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier
IB ..... In BNSF Bond
IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs
ID ..... In Bond Beyond BNSF Destination
IE ..... Interchange Error
IH ..... Inhalation Hazard
IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico
IN ..... Hold for Inspection
IS ..... In Shipper's Bond
IU ..... Inspection was Requested by US Customs at Port of Entry into USA
LC ..... Car Trip Leased to Consignee
LD ..... Local Distribution Empty
LG ..... Loaded to Gallonage Capacity
LO ..... Local Orders
LQ ..... Loaded to Full Cubic Capacity
LS ..... Handle in Local Service Only
LU ..... Unload in Laredo proper
LV ..... Loaded to Full Visible Capacity
LX ..... Cleared for export via Laredo
L1 ..... Customer Location 1
L2 ..... Location 2 - East Plant
M8 ..... Inspect 8 axle or greater span bolster car for ride quality components
MB ..... Make Bill of Lading
MC ..... Measure Car Now
MD ..... Mixed Destination Intermodal Units
MI ..... Requires mechanical inspection, do not move on train.
MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit
MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit
NC ..... Non-credit Patron
ND ..... Do Not Divert
NH ..... No Hit—Car Distribution
NL ..... IMDL van or container requires Nava Lock device
NM ..... Non Misc. Credit Patron—Car held account charges due
NP ..... No Placards Required
NT ..... Do Not Transfer Contents
OI ..... Oils Marine Pollutant
ON ..... Oil Notation
PD ..... Privately Owned Equipment Subject to Demurrage
PH ..... Hold for Pool Destination
PJ ..... Mechanical Project Job
PR ..... Prospective Loading Empty
PT ..... Hold for Pre-Trip
QD ..... Hold for Queue Demand
QH ..... Hazmat Hold—Do Not Transport
RC ..... Restricted Commodity
RE ..... Rear End Only
RI ..... Rail Inspection Service
RJ ..... Hold for Rejected
RL ..... Revenue Locomotive - Check for Alignment Control
RP ..... Rail Controlled Private
RS ..... Rule 7 Reject Candidate
SC ..... Equipment Scrapped
SD ..... Car Sold
SE ..... Hold for Seasonal Storage
SF ..... Feed Now
SH ..... OPSL Hold
SO ..... Shipper's Order
SR ..... Rail Surveillance Required
SS ..... Surplus Storage
ST ..... Move on special train only, requires single car train movement.
SW ..... Switch Only Empty Furnished by Foreign Road
SX ..... Speed Restriction Exception to Sys Special Inst. - OK to Run at Train Speed
TB ..... Car Control Distributed Bad Order
TC ..... Tank Car, Meets CPC-1232 standards
TN ..... Tank Car, Non - CPC-1232 standards
TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated
TS ..... Transit Shipment
TU ..... Turn This Car Now
UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.
UP ..... Unloaded as Placarded
UR ..... Unload from right side (from brake end)
VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)
VB ..... Vehicles Headlights Facing B-End (Brake End)
WA ..... Weigh After Spotted and Released
WB ..... Weigh This Car Both Before and After It Goes to Spot
WH ..... Weigh
WI ..... Waive Inspection
WL ..... Weigh Light
XM ..... Cleared to Cross from US to Mexico
25 ..... 25 MPH Speed Restriction (See Note 2)

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**Clean and Condition Codes for Empty Cars**

| CODE | DESCRIPTION |
|---|---|
| F1 | Washed, Food Grade |
| F2 | Cleaned (Swept), Food Grade |
| F3 | Dirty, Food Grade |
| F4 | Cond/Repairs, Food Grade |
| F5 | "Not Observed", Food Grade |
| F6 | Rinse, Food Grade |
| F7 | Inspected, Food Grade |
| P1 | Washed, Processor Grade |
| P2 | Cleaned (Swept), Processor Grade |
| P3 | Dirty, Processor Grade |
| P4 | Cond/Repairs, Processor Grade |
| P5 | "Not Observed", Processor Grade |
| P6 | Rinse, Processor Grade |
| P7 | Inspected, Processor Grade |
| S1 | Washed, Standard Grade |
| S2 | Cleaned (Swept), Standard Grade |
| S3 | Dirty, Standard Grade |
| S4 | Cond/Repairs, Standard Grade |
| S5 | "Not Observed", Standard Grade |
| S6 | Rinse, Standard Grade |
| S7 | Inspected, Standard Grade |
| S0 | Washed and Sanitized |

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

**Note 3.** The California Air Resource Board (CARB) has instituted tighter emissions standards for transportation refrigeration units. Some BNSF refrigerated boxcars are not compliant with the new standard and therefore cannot originate, terminate or transit through California state. Non-CARB-compliant cars can be identified by a CB code in the SCHI field and are color coded reverse video blue in TSS.

Equipment management controls have been implemented to assign only CARB cars to the state of California. Waybill edits will verify compliance at release and place a STOP on non-CARB cars if waybilled to a California destination.

No substitution between Non-CARB and CARB cars is allowed unless work orders specifically authorize the exception. Yard Block HOLDCB prevents any Non-CARB cars destined to California, or originating in California from scheduling to a train. Cars will go HOLDMT at origin.

Non-CARB cars will not schedule to trains terminating in or passing through California. Attempts to TRNSET a Non-CARB car to a California-routed train will result in a pop-up window advising that the car must be removed from the line-up and explaining why.

For questions or assistance with handling exceptions for BNSF refrigerated boxcars, email your concerns to the CARB Resolution Team at "MKT DL CP CARB".

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M2F and M3F (articulated Hi Bi/Tri-Levels) must not be operated on any Branch Line or on any of the following locations:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Carlsbad Subdivision—Mines Jct. to Carlsbad
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Laurel Subdivision
- Lester Subdivision
- Longview Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Scenic Subdivision—(Exception: Car kinds M2F and M3F may operate on this subdivision and use only MT 2 between MP 0.15 and MP 1.11.)
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Mitchell Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kinds M2F and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7 f).

**47. Train Makeup Instructions**

If a train is determined to be out of compliance with these train makeup rules as listed in items 47 & 47(A), and the maximum authorized speed exceeds 45 MPH, the speed must immediately be reduced to 45 MPH and the train dispatcher notified. The train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**System Tonnage Restrictions:**

1. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car):
   - Any car 80 ft or longer coupled to any car 45 ft or shorter.

   Note: Item 1 does not apply to test cars BNSF 82/83 and multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars.)

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2. The following cars must not be ahead of more than 5,500 trailing tons:
   - Multi-platform spine cars, regardless of how loaded.
     - See Subdivision Specific Tonnage Restrictions below for additional multi-platform spine car tonnage instructions.
3. Trains greater than 5,500 total tons (excluding empty bulk commodity trains):
   Restricted cars must not be within the first 10 cars/ platforms

The following are restricted cars that pertain to SSI 47 System Tonnage Restrictions Item 3 and Mountain Grade Tonnage Restrictions Items 1 & 2 below:

- Any conventional car (non-multiplatform) weighing less than 45 tons.
- Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) and Wind Tower Trains with distributed power.
- Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.
  Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
- Multi-platform cars with any empty platforms. Note: All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.

4. Trains greater than 7,000 tons:
   The rear 1/4 of the train by car count must not weigh more than 1/3 of the total weight.
   Exception: This does not apply to:
   - trains made up entirely of cars weighing a minimum of 45 tons each.
   - solid loaded or solid empty unit bulk commodity trains.
   - trains made up entirely of intermodal equipment.

**Mountain Grade Tonnage Restrictions**

The following restrictions are in addition to System Tonnage Restrictions (excludes solid empty bulk commodity trains):

1. On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 2,500 trailing tons.
   - Trains greater than 2,500 tons and less than 3,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 3,000 tons or greater, restricted cars must not be within the first 15 cars/platforms.
2. On Cajon (Main 3, MP 56.6 - MP 62.8), North County Transit Coaster (MP 250 - 255), Gateway (MP 178.0 - 188.0), UPRR Mojave (MP 331.3 - MP 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5) Subdivisions, the following additional restrictions apply:
   - Trains greater than 3,500 tons and less than 4,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 4,000 tons or greater, restricted cars, automax cars weighing less than 120 tons, and autoracks weighing less than 60 tons (does not apply to DP trains consisting entirely of automax/autorack cars), must not be within the first 15 cars/platforms.
3. On Cajon (Eastward Main 3, MP 56.6 - 62.8), North County Transit Coaster (MP 250 - 255), UPRR Mojave (Eastward MP 331.3 - 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Gateway (Northward MP 178 - 188), Stampede (MP 41 - 58.5) and Scenic (Eastward MP 1694.5 - 1731.3) Subdivisions, the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 4,000 trailing tons.
4. On Glorieta (MP 775.0 – MP 842.0), Raton (MP 639.0 – MP 660.0), Cajon (Main 3, MP 56.6 – MP 62.8), North County Transit Coaster (MP 250 – MP 255), Gateway (MP 178.0 – MP 188.0), UPRR Mojave (MP 331.3 – MP 381.3), UPRR Moffat Tunnel (MP 17 – MP 63), UPRR Provo (MP 626 – MP 685), Scenic (MP 1694.5 – MP 1731.3) and Stampede (MP 41.0 – MP 58.5) Subdivisions, the following additional restrictions apply:
   - Cars weighing 35 tons or less, that are 80 ft. or longer or that are coupled to cars 80 ft or longer must not be ahead of 4,000 trailing tons.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 3, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

**Subdivision Specific Tonnage Restrictions**

Intermodal trains operating with multi-platform spine cars, regardless of how loaded, are subject to System Tonnage Restrictions as well as the additional restrictions below:

On the Chillicothe, Marceline, Emporia, Arkansas City, La Junta, Topeka, Panhandle, Hereford, Clovis, Gallup, Seligman, Needles, Fort Worth (between MP 365 and MP 355), Wichita Falls and Red River Valley Subdivisions, trains operating with DP may exceed 5.500 trailing tons behind multi-platform spine cars if the following conditions are met:

1. No more than 30 cars equipped with End of Car Cushioning (Autoracks and Super Reefers identified in subdivision specific timetable).
2. Trains operating with rear only DP:
   - Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.
3. For trains operating with cut-in DP:
   - Tonnage ahead of and behind the cut-in DP consist must be within 2,000-tons of each other.
   - Trains operating with DP consist cut-in and no rear DP:
     Multi-platform spine cars ahead of the cut-in DP must not be ahead of more than 11,000 trailing tons. In addition, multi-platform spine cars behind the cut-in DP must not be ahead of more than 5,500 trailing tons.
   - Trains operating with both cut-in and rear DP:
     Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.

**Exceptions**

Trains which are exempt from the above train makeup instructions will be identified on Division General Order.

UPRR trains operated on BNSF may operate in compliance with UPRR train makeup rules with the exception of distributed power train length limitations as outlined in 47(A).

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train makeup instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train makeup instructions, train is authorized to operate on BNSF at a maximum speed of 45 MPH.

**Train Length, Tonnage and TOB**

When complying with Special Instructions covering speed and other train restrictions where calculations of train length, tonnage and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

Exception:

1. The weight of isolated/inoperative locomotives is added to train trailing tonnage when determining HPT in the application of ABTH Rule 106.1 Regulating Horsepower per Ton, and
2. The weight of locomotives with isolated/inoperative dynamic brakes is also added to train trailing tonnage when determining the minimum number of dynamic brake axles where required on mountain grade subdivisions.

**Military Train**

Unit military trains containing shipments on cars with end of car-cushioning, shown on the train profile as EOC, shall have no more than a total of 80 cars in the train when operating with conventional power (head end only). Train may operate in excess of 80 cars but no more than 90 when operating with a distributed power consist, either cut-in and/or on rear of train. If train (DP or non-DP) exceeds 60 cars, speed is restricted to 45 mph.

**Loaded Coiled Steel Cars**

The maximum number of loaded coiled steel cars and GRS/G0S on any train is limited per the table below:

| Total Coil Cars in Train | Maximum # of GRS/G0S Coil Cars |
|---|---|
| 80 | 0 |
| 70 | 10 |
| 65 | 20 |
| 60 | 30 |
| 55 | 40 |
| 50 | 50 |

**Additional Train Makeup Restrictions Applicable to Trains Containing Coiled Steel Cars Operating on:**

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft. Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP - 496.1) and Wichita Falls (except between Deen Rd. - MP 4.8 and Fort Worth Connection - MP 9.9) and UP Lufkin.

**1. Conventional Unit Coiled Steel Trains**

Conventional (non-DP) unit trains made up entirely of loaded G0S and GRS cars are limited to 30 cars total and will be operated in a 2x0 configuration.

**2. Conventional Manifest Trains Containing Coiled Steel Cars (mixed freight without distributed power)**

| Total Train Tonnage | Maximum Loaded Steel Cars with End of Car Cushioning Allowed |
|---|---|
| 4,500 tons or less | 30 |
| 4,501 - 5,500 tons | 25 |
| 5,501 - 6,500 tons | 20 |
| 6,501 - 7,500 tons | 15 |
| 7,501 - 8,500 tons | 10 |
| Greater than 8,500 tons | 0 |

When moving on conventional trains, all loaded shipments identified by car kind code G0S or GRS (includes ATSF, BN, BNSF, foreign and private equipment) must be placed within the first 20 cars of the train and be as close to the locomotives as practical. When handling more than 20 G0S or GRS loaded shipments, these cars must be placed directly behind locomotive consist.

**3. Unit Coiled Steel Train Operating with DP**

Unit trains made up entirely of loaded G0S and GRS cars are limited to 50 cars total and will be operated in a 1X2 DP configuration with dynamic brakes cut out on the trail unit of the remote DP consist. The dynamic brakes must remain cut in on the controlling DP remote unit.

**4. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with DP on Rear**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars)
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist.

**5. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with Cut In DP**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars) ahead of the cut in DP
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist
- May not have more than 15 additional cars equipped with end of car cushioning behind the cut in DP.

**Wind Tower Trains**

Wind Tower Trains containing loads and empty idler cars shall have no more than a total of 80 cars in the train. Trains exceeding 5,500 tons must operate with a single distributed power unit either cut in or on rear of train.

**47(A). Train Makeup Instructions and Locomotive Requirements Applicable to Conventional, Distributed Power and Manned Helpers**

Note: In the application of instructions below, the terms "DP and "DP remote consist(s)" refers to trains utilizing distributed power and/or manned helper consists. The term "rear end" refers to the very end of the train and "cut in" refers to placement within the train with cars on both sides. RPA refers to Rated Powered Axles and can be referenced in SSI, Locomotive Data Table, 2(B).

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### 1. Maximum Rated Power Axle (RPA) Limitations for Conventional, Distributed Power and Manned Helper Placement

| Train Type | Head End | Cut In DP/ Helper | Rear end DP/ Helper |
|---|---|---|---|
| Manifest | 42 | 24 | 16 |
| Intermodal | 48 | 24 | 16 |
| Empty Bulk Commodity | 24 | 16 | 8 |
| Loaded Bulk Commodity (no empties in train) | 32 | 40 | 24 |

**DP RPA Differential:**
Single Remote/Helper Consist- If operating with one distributed power consist either cut-in or on the rear, total RPA of head end locomotive consist must not exceed 16 RPA of the total RPA of DP/Helper locomotive remote consist. In addition, total RPA of the remote consist must not exceed 8 RPA of the head end locomotive consist.

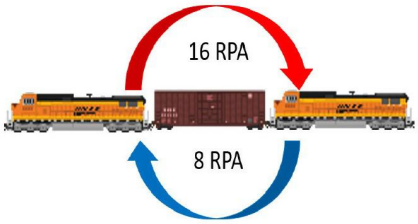



*Figure 1.*

**Multiple DP Consists**
If operating with distributed power cut-in and on the rear, individual consist RPA must not exceed 16 RPA of the next consist towards the rear of the train (Head to Mid; Mid to rear). In addition, RPA of each consist must not exceed 8 RPA of the next consist towards the head end of the train (rear to mid; mid to head end).
Exception - Does not apply to loaded bulk commodity trains.

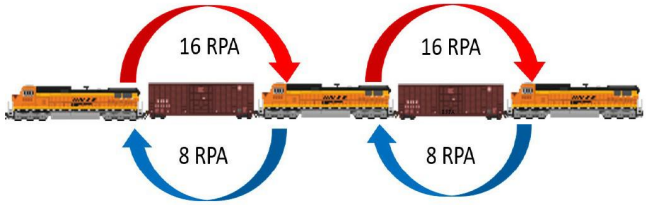



*Figure 2.*

Exception: Trains exceeding 8,000 tons operating on the heavy grade subdivisions listed below, must limit the total RPA of the head end locomotive consist to no more than 8 RPA greater than the total RPA of the DP/Helper locomotive remote consist(s).

Cajon (Main 3, MP 56.6 - MP 62.8, eastward only)
Gateway (MP 178.0 - 188.0, northward only)
Glorieta (MP 775.0 - MP 842.0)
Raton (MP 639.0 - MP 660.0)
North County Transit Coaster (NCTC) (MP 250 - 255)
Scenic (MP 1694.5 - MP 1731.3)
Stampede (MP 41.0 - MP 58.5)
UPRR Moffat Tunnel (MP 17 - 63)
UPRR Mojave (MP 331.3 - MP 381.3, southward only)
UPRR Provo (MP 626 - 685)

### 2. DP Remote and ETD Placement Limitations

| Distributed Power and ETD Length Limitations | |
|---|---|
| **Train description** | **Maximum length allowed, excluding locomotives** |
| Conventional trains and trains operating with a cut-in single DP/ helper consist not equipped with mid-train ETD repeater | 10,000 ft between lead locomotive consist and end of train device (ETD) on rear<br>Exception: Loaded vehicle trains - 8,000 ft between lead locomotive consist and ETD on rear |
| Trains operating with cut-in DP/ helper consist (mid-train ETD repeater) with 2-way ETD | 16,000 ft between lead consist and ETD |
| Solid intermodal trains containing no autoracks operating with a single DP remote consist on rear | 12,000 ft between lead consist and remote DP consist (Lead locomotive and DP remote must be LXA equipped) |
| Solid intermodal (without LXA), manifest, or bulk commodity trains operating with a single DP remote consist on rear | 10,000 ft between lead consist and remote DP consist |
| Train of any type operating with two DP remote consists, cut in and on rear of train | 16,000 ft between lead consist and rear remote DP consist |

Placement instructions for Cut in/Helper DP Consists:

a. One DP Remote Consist

A single DP remote consist cut into the train must not have the cut in DP consist further than 10,000 feet from the head end of train (excluding locomotive length). Single DP consists cut into the train exceeding 8 RPA must be cut in at 300 tons per axle exceeding 8 RPA, but no closer to the head end than 20 cars forward of mid-train, by car count, as long as train makeup requirements next to DP remote consist outlined below in Item 47(A) 3 and 4 are met.

Exception: The requirement to cut in at 300 tons per axle exceeding 8 RPA does not apply to solid intermodal trains, trains with solid intermodal equipment behind cut in DP/Helper consist or trains with loaded bulk commodity cars ahead of cut in DP/Helper consist. On solid intermodal trains, the DP remote consist must be cut in no closer than 1000 feet forward of mid train by length, as long as train makeup requirements next to DP remote consist outlined below in item 47(A) 3 and 4 are met.

b. Two DP Remote Consists

When two DP remote consists are used, they must be positioned with one DP remote consist cut into the train, and one DP remote consist at the rear end. The cut in DP remote consist must not be cut in further than 10,000 feet from the head end of train (excluding locomotive length) and must not be closer to the head end than 20 cars forward of mid-train, by car count.

Exception: Solid intermodal trains operating with two DP remote consists must not have the cut in DP remote consist further than 10,000 feet from the head end of train (excludes locomotive lengths) and must not be closer to the head end than 1,000 feet forward of mid-train, by length.

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### 3. System Distributed Power and Manned Helper Train Makeup Restrictions

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | | Restricted Cars |
|---|---|---|
| **Cut In DP/ Helper, any RPA** | **Rear end DP/ Helper, any RPA** | |
| Must be at rear of train behind any rear end DP/helper consist | | Cars indicated as rear end only. |
| | | AMGX 2-unit solid drawbar connected gondolas |
| | | Occupied caboose |
| **Cut In DP/Helper 9 - 24 RPA** | **Rear end DP/Helper 9 - 16 RPA** | |
| Restricted cars listed must not be within **5 cars or platforms/ wells** ahead of or behind cut in consist.<br>Exception: Does not apply to empty bulk commodity/ combination trains, trains with only baretable equipment behind the cut in DP or to loaded single well double stack cars of any weight (car kind beginning with QU or QK). | Restricted cars listed must not be within **10 cars or platforms/wells** ahead of consist on rear end. | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | | Any conventional car (non-multiplatform) weighing less than 45 tons. Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) |
| | | Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/ container on either segment/ platform. |
| | | Empty platforms/wells of a multiplatform car. All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not. |

### 4. Additional Train Makeup Restrictions Applicable to DP Trains Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP 496.1), Wichita Falls and UPRR Lufkin Subdivisions.

| DP Locomotive Consist RPA/ Location/Restricted Car Placement | Restricted Cars |
|---|---|
| **Cut In DP/Helper or rear end DP/Helper up to 8 RPA** | |
| Restricted cars listed must not be placed within **5 cars or platforms/wells** of DP/Helper consist. (cut in and/or on rear end) | Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.) |
| | Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight. Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform. |
| **Cut In or Rear End DP/Helper consist of 9 – 24 RPA** (Does not apply to trains with 2, single-locomotive DP remotes) | |
| Restricted cars listed must not be placed **within 10 cars/ platforms of lead consist and remote consist(s)** | Any conventional car (non-multiplatform weighing less than 45 tons. Exception: Does not apply to empty bulk commodity/ combination trains operating with cut in DP consists or loaded single well double stack cars of any weight (car kind beginning with QU or QK). |
| Restricted cars listed **must not be placed between lead consist and remote consist(s)** | Intermodal equipment other than double stack and autoracks, regardless of how loaded. (Conventional intermodal flat cars, spine cars - car kind QM, QC, QO, Q5 and QE and twin flats - car kinds FM, QB, QD and QL.) |
| | No more than 30 cars with end of car cushioning ahead of any individual consist of 9 RPA or greater. (Does not apply to solid intermodal and solid loaded bulk commodity unit trains with cars equipped with end of car cushioning.) |

### 5. Limiting Tractive Effort When Using Manned Helpers with Trains Not in Compliance with Train Makeup Guidelines:

Conventional trains may be helped from the rear of train with a manned helper only (DP may not be used) when exceeding axle limitation guidelines above if train is disabled and not in compliance with train makeup restrictions for DP/Helper service as outlined above. Tractive effort limit when exceeding 8 rated powered axles and helping trains not in compliance with DP/Helper train makeup guidelines as follows:

**Manned Helper Controlling Locomotive with Amperage Displayed:**
8 rated powered axles - no restriction
10 rated powered axles - 1,000 amps
12 rated powered axles - 950 amps
14 rated powered axles - 900 amps
16 rated powered axles - 850 amps

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**Manned Helper Controlling Locomotive with Tractive Effort Displayed:**

Limit total tractive effort of AC consist to 100,000 lbs. Total AC locomotive consist tractive effort is determined by multiplying tractive effort indicated on display of controlling locomotive and multiplying by the total number of operative AC locomotives in the consist.

Example: A controlling unit of a two-unit AC locomotive consist should not be allowed to produce more than 50,000 lbs. of tractive effort.

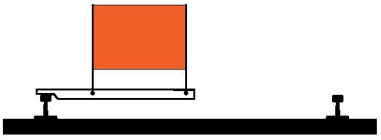
**48. Operations Testing**

BNSF will use the following banners as stop indications when operations testing for compliance where train, engine or on-track equipment movements are required to stop short of the items listed in operating rules GCOR 6.22 (excludes Banner #3), 6.27, 6.28 and MWOR 6.27, 6.28, 6.50:

1. A high visibility red/orange Stop/Obstruction banner displayed square on point to simulate on-track equipment.




2. A high visibility red/orange Stop banner, square or rectangular in shape and approximately 18 by 18 inches in size.



Banner 1 or 2 may be used on any track (main, controlled siding, yard, industry, etc.) for movements governed by GCOR/MWOR 6.27 Restricted Speed, GCOR/MWOR 6.28 Movement on Other Than Main Track, GCOR 6.22 Maintaining Control of Train or Engine (stopping 400 feet short of banners is applicable on a Main Track or controlled siding only), or MWOR 6.50 Movement of On-Track Equipment. These banners will be placed between the rails of the track, and simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banner.

3. Banner 3 may only be used on yard or industry tracks governed by GCOR/MWOR 6.28. Do not use on switches equipped with switch point indicators (GCOR 8.10) or sidings in TWC territory to simulate a switch or derail lined improperly.



High visibility red/orange with horizontal yellow bar Switch Point/Derail Location Stop banners, square or rectangular in shape and approximately 5 inches by 6 inches. These banners may only be used at existing switch point or derail locations, with one banner placed on each rail directly across from one another, to simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banners.

**49. Responsibilities and Certification**

**Engineers**

In the application of the following guidelines, the term "engineer" applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

Before beginning each shift or tour of duty, all engineers must ensure their CFR Part 240 certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before operating a locomotive.

**1. General Responsibilities**

Engineers are responsible for and must maintain their certification.

a. Engineers must be certified in the appropriate class of service to operate a locomotive.
b. Engineers must certify according to federal regulations (49 CFR Part 240) and BNSF Railway certification requirements and programs.
c. Engineers must have their CFR Part 240 electronic certificate accessible, displaying the correct class of service on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.
d. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Engineers must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.
e. Engineers and Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.

     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, engineer must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.
f. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.

Changes must be reported when:

1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement
2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meets the minimum requirements without any corrective device.

The minimum hearing and vision requirements are:

1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels
2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Engineer Certification Requirements for Operating Locomotives**

Certified engineers may operate locomotives under the following conditions:

a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.

b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hostling purposes.

c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.

d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Before operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.

e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
Note: An RCO Operator must have a minimum of 30 tours of duty as a Certified Remote Control Operator before training a student.

f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed before October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

**3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment**

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency,
- Route familiarization, and
- Special or unique equipment.

**a. Skills Proficiency**

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception: The period is extended to 12 months for RCO if they are also certified as a train service engineer.

**b. Route Familiarization**

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six months:

Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions.

Train service engineers assigned to new routes or who become unqualified on current assigned routes are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or requalify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train service engineer to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

**4. Special Equipment Proficiency**

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment. A certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

**5. Route Familiarization Pilots**

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

a. Train Service Engineers:
   1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
   2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

b. Remote Control Operators:
   1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
   2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Conductors**

In the application of the following guidelines, the term"conductor" applies to a crew member in charge of a train or yard crew and passenger conductor who has received emergency preparedness training.

Before beginning each shift or tour of duty, all conductors must ensure their CFR Part 242 electronic certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before performing service as a conductor.

**1. General Responsibilities (applies to any person with certification as a Conductor)**

Any person certified as a Conductor is responsible for and must maintain their certification.

a. Conductors must certify according to federal regulations (49 CFR Part 242) and BNSF Railway certification requirements and programs.

b. Conductors must have their CFR Part 242 electronic certificate accessible on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.

c. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Conductors must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.

d. Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction.
   The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.
     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, conductor must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.

e. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.
   Changes must be reported when:
   1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement.
   2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meet the minimum requirements without any corrective device.

   The minimum hearing and vision requirements are:
   1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels

2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Maintaining Conductor Route Familiarization**

Certified employees must maintain proficiency as a conductor as it pertains to route familiarization.

**Route Familiarization**
Route familiarization is required in order to perform service as a certified conductor without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by local supervisor, route familiarization is maintained by observing the route biennially based on the calendar year when performing service in any capacity (engineer or trainman). If the route has not been observed once in a 24 month period, qualification will expire at the end of the calendar year. Other methods of maintaining route familiarization may also be available as specified by local supervisor.

Conductors assigned to new routes or who become unqualified on current assigned routes are required to contact their local supervisor who will advise the number of trips required to qualify or re-qualify on that route. If and when a conductor is qualified at the completion of these trips, a supervisor will then authorize the conductor to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does not include a section of main track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**3. Route Familiarization Pilots**

Employees will be assisted by a pilot if called to perform service as a conductor on a route lacking territory qualification:

a. When a conductor lacks Main Track territory qualification, the pilot must be a certified employee and meets the territory qualification requirements for the Main Track physical characteristics and is not an assigned member of the crew.
b. When a conductor was previously qualified on the Main Track, but qualifications have expired, the pilot can be an assigned member of the crew, other than the locomotive engineer who meets the territorial qualification requirement for Main Track physical characteristics.

If a conductor is called and lacks territorial qualification on other than Main Track and the assistance of a certified employee pilot is not practicable, the conductor must reference an appropriate job aid to satisfy this requirement.

**50. Rail Security Sensitive Material (RSSM) Instructions**

**Chain of Custody Documentation for Rail Security Sensitive Material**

When RSSM shipments in BNSF custody are set out enroute due to mechanical defect, the Resource Operations Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3, who will arrange for attendance. The PBX/MRAS radio system may be used for this communication.

Federal regulations require Chain of Custody documentation for Rail Security Sensitive Material (RSSM) in the cases described below.

Rail Security-Sensitive Material (RSSM) includes a shipment of one or more of the categories and quantities listed below:

1. Rail car containing more than 5,000 lbs (2,268 kg) of a Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous by inhalation, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation, and Division 6.1 liquids assigned to hazard zone A or hazard zone B.
3. Rail car containing a highway route-controlled Class 7 (radioactive) material.

These materials are identified with the Special Car Handling Code “RC”, Restricted Commodity , and /or “RSSM HAZMAT” in the starred box that identifies hazmat shipments.

Except at locations identified by Division General Order, employees must execute and document Positive Transfers of Custody any time a loaded rail car identified by SCHI code “RC” is:

1. Pulled from or spotted to an industry
2. Delivered or received in interchange

Employees can make a positive transfer of custody when:

1. Physically located on site in reasonable proximity to the rail car.
2. Capable of responding to unauthorized access or activity at or near the rail car, including immediately contacting law enforcement or other authorities.
3. They immediately respond to unauthorized access or activity at or near the rail car by contacting law enforcement or other authorities.

This requirement applies both to BNSF employees and representatives of shippers, consignees, and interchange carriers making positive transfers of custody. A positive transfer of custody can take place only if representatives of both companies are present.

When a representative of an interchange carrier is not available where required, “RC” shipments must not be delivered, but may be received if proper paperwork can be obtained per Hazardous Material Instructions Item II. Contact a supervisor for disposition of “RC” shipments when a representative is not available to accept delivery.

If an RSSM shipment is delivered by connecting carrier and left on the interchange transfer unattended, transfer of custody information must show connecting carrier employee’s name as “unattended”.

Any car identified an RSSM shipment will require “Chain of Custody” documentation. Empty “residue” cars will not be identified with this code.

BNSF employees must confer with the customer or interchange road representative to ensure both of their documentation records contain the same information. The chain of custody documentation must include the following:

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1. The first six digits of the employee's ID (e.g. b123456)
2. The date and time of the actual custody transfer.
3. The station at which the "RC" cars are transferred.
4. The person's first and last name to or from whom custody is being transferred.
5. The car initials and numbers.

Completing the chain of custody documentation:

1. TSS, TSS Xpress, or Mobile Train Reporting (MTR) are the preferred methods for documentation.
2. Utilize the Chain of Custody Form on the back of the GTB or work order when TSS, TSS Xpress, or MTR is not available due to work performed on line.
   a. When documenting a written chain of custody, employees must enter the information in TSS or TSS Xpress when access to a computer system becomes available.
   b. If a computer system is not available, utilize the FAX number at top of printed chain of custody form.
   c. Hours of service employees must complete the chain of custody documentation before expiring from duty under the hours of service.
   d. When documenting the chain of custody in printed form, employees must deliver the chain of custody documentation to a relief crew or supervisor for entry in to the system via TSS, TSS Xpress, or fax prior to the completion of the tour of duty when possible. This delivery must also be documented on the chain of custody form.
   e. When not possible to deliver the printed chain of custody documentation to a relief crew or supervisor prior to completion of the tour of duty, employees must enter the chain of custody documentation into the system via TSS, TSS Xpress, or fax when returning for next tour of duty.

Chain of custody procedures when receiving an "RC" freight car in interchange:

1. Loaded "RC" freight cars entering a yard from a foreign carrier must be recorded by the BNSF employee assuming responsibility to receive the "RC" car.
2. Employees should use the new TSS or TSS Xpress function "CUSTODY" to record the person's name from which custody is received along with the date and time of custody interchange. If an advance waybill list is not available, documentation must be done on printed format and entered into TSS or TSS Xpress when available.
3. Division Management will identify the point of contact for acceptance of interchange at each location.
4. A visual security inspection must take place with these cars when practical and must take place before departure from the interchange point. This is typically done during normal freight car safety inspections that are currently performed.

**Locations of High Threat Urban Area (HTUA)**

The following BNSF locations have been designated as HTUAs.

| | | |
|---|---|---|
| Anaheim | Kansas City | Riverside, CA |
| Bakersfield, CA | Los Angeles | San Antonio |
| Bay Area | Memphis | Sacramento |
| Chicago | New Orleans | San Diego |
| Dallas/Ft Worth | Oklahoma City | Seattle |
| Denver | Omaha | St Louis |
| El Paso | Phoenix | Tulsa |
| Houston | Portland | Twin Cities |

HTUA and associated boundaries will be identified by Division General Order.

**Attendance Requirements**

Shipments identified as "RSSM" must be attended at all times while inside an HTUA. RSSM shipments inside an HTUA are considered attended when:

- Located at an industry, when plant personnel have accepted chain of custody.
- Located in a yard which is staffed 24 hours per day.
  - Employees in the yard must be able to routinely view cars physically or by camera.
  - Employees designated as responsible for RSSM cars will be identified by Division General Order and must be able to respond to unauthorized access or activity by contacting law enforcement or other authorities.
- Located within a train with an on-duty crew, authorized employee or representative physically present.

Exceptions to above requirement will be identified by Division General Order.

Employees designated by Division General Order as responsible for location of RSSM cars inside HTUA are required to:

- Contact law enforcement or other authorities to report unauthorized access to RSSM cars.
- Know the placards and designations used to identify RSSM shipments.

Employees responsible for handling RSSM cars within the HTUA are required to:

- Know the contact information outlined by Division General Order for BNSF personnel who are responsible for location of cars within HTUA.
- Know the placards and designations used to identify RSSM shipments.

Note: BNSF Crews operating on foreign railroads must comply with these attendance requirements unless otherwise specified by the foreign railroad's instructions.

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**Appendix A - Track Flagging Examples**

The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by rule.

Yellow and yellow-red flags will be displayed on all main tracks and sidings leading to the track affected. Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In multiple Main Track territory, when a restriction is placed on a crossover, or in single Main Track territory when a restriction is placed on a turnout not affecting the Main Track, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

In situations in multiple Main Track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.

**Single Main Track**

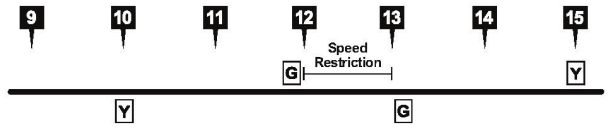



Diagram 1.

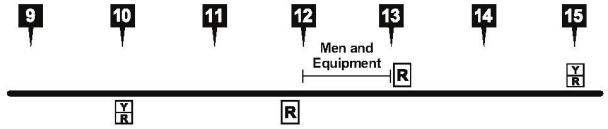



Diagram 2.

**Display of Green Flags with Overlapping Yellow Flags**

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

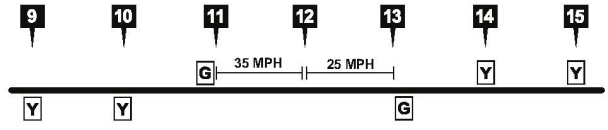



Diagram 3.

**Single Main Track (Sidings at the 2-mile point)**

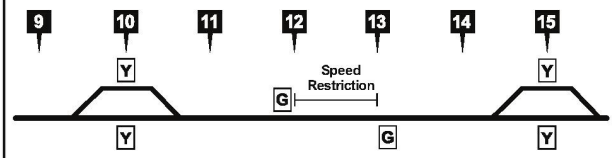



Diagram 4.

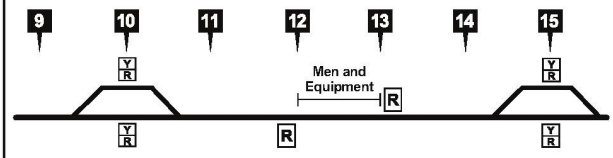



Diagram 5.

**Restriction on Siding**

Speed restrictions on sidings will be short flagged. Location of short flag must be indicated in track bulletin or track warrant.

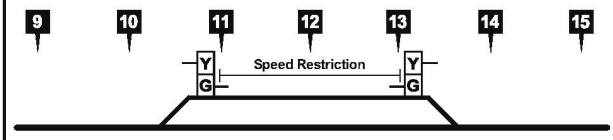



Diagram 6.

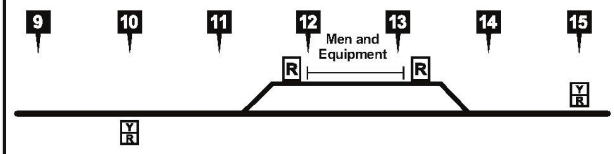



Diagram 7.

Train crews would determine the track affected by the information contained in their track bulletin.

**Speed Restriction on Main Track Where Siding is Adjacent**

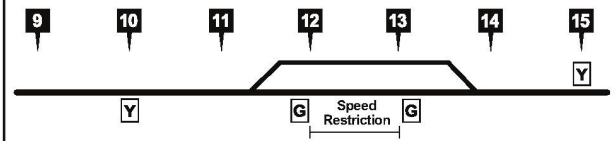



Diagram 8.

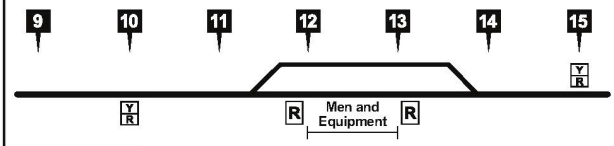



Diagram 9.

Train crews would determine the track affected by the information contained in their track bulletin.

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## Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance

Location of short flag must be indicated in track bulletin or track warrant.

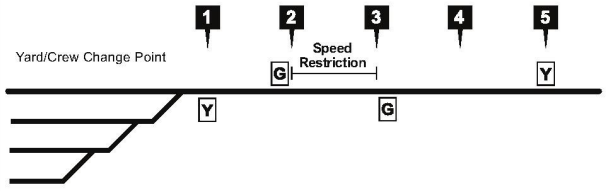



Diagram 10.

## When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

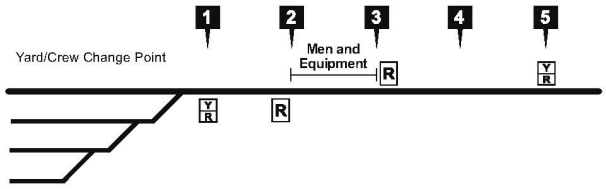



Diagram 11.

## Speed Restriction at Foreign Line Junction

Location of short flag must be indicated in track bulletin or track warrant.

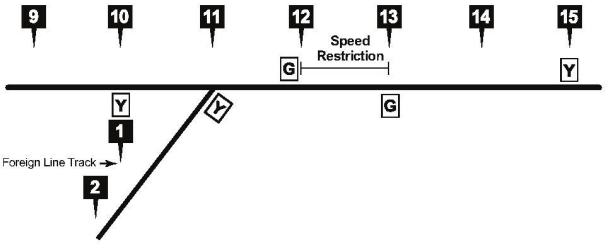



Diagram 12.

## Foreign Line junction Near Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

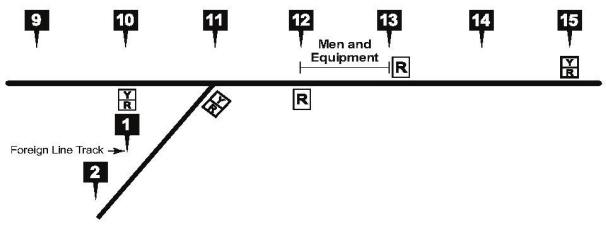



Diagram 13.

## Speed Restriction at BNSF Junction

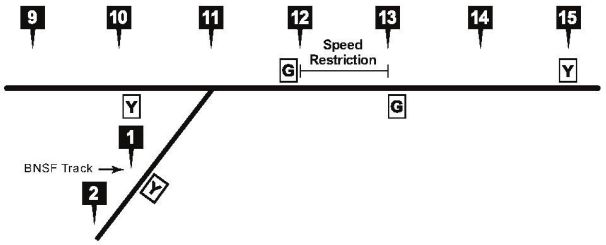



Diagram 14.

## BNSF Junction Near Men and Equipment

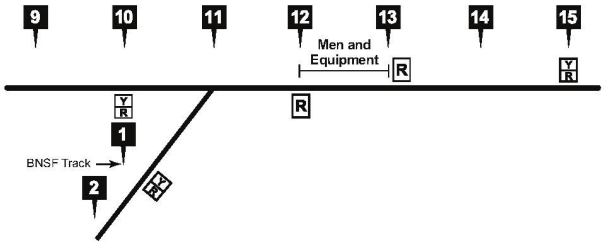



Diagram 15.

## Men and Equipment with Junction and Intervening Switch

Red flags at the limits of Form B and Main Track junctions within the limits.

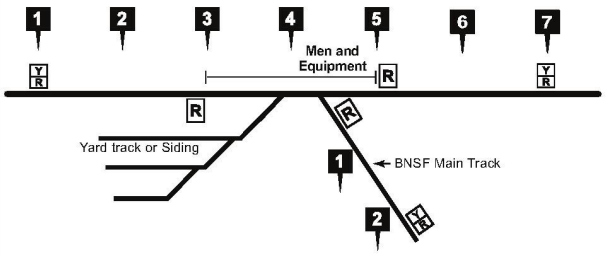



Diagram 16.

## Speed Restriction Just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

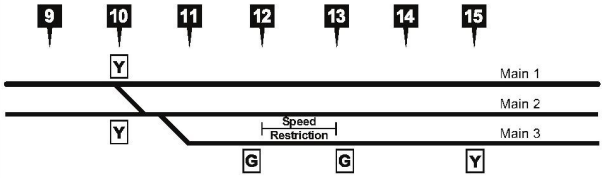



Diagram 17.

## Men and Equipment just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

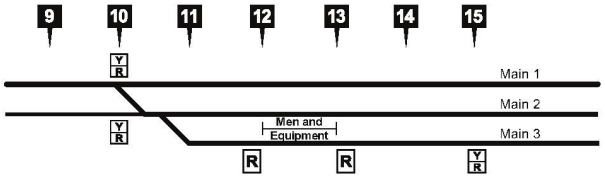



Diagram 18.

## Speed Restriction Just Beyond Turnout to Main 1

Train crews would determine the track affected by the information contained in their track bulletin.

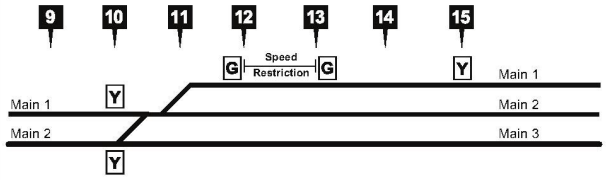



Diagram 19.

## Men and Equipment Just Beyond Turnout to Main 1

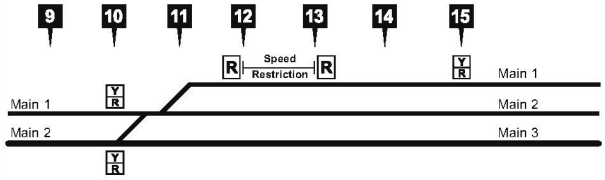



Diagram 20.

## Speed Restriction on Multiple Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

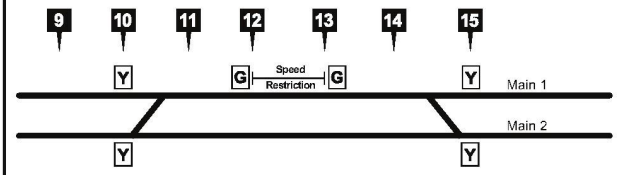



Diagram 21.

## Men and Equipment on Multiple Main Track

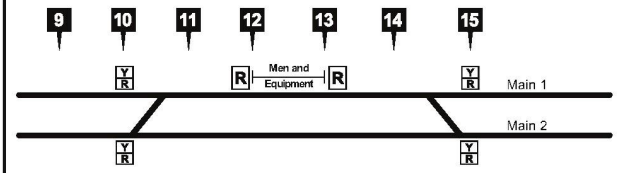



Diagram 22.

## Speed Restriction on Main 1 (CTC Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.

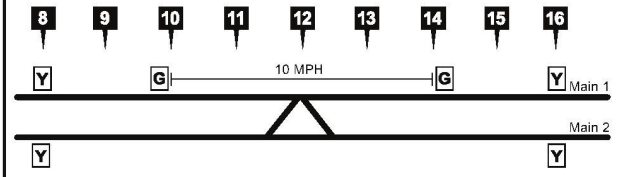



Diagram 23.

## Speed Restriction on Main 1 (CTC and ABS Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.

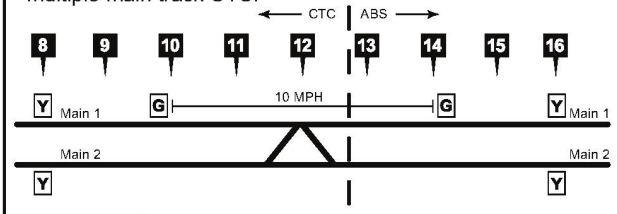



Diagram 24.

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.

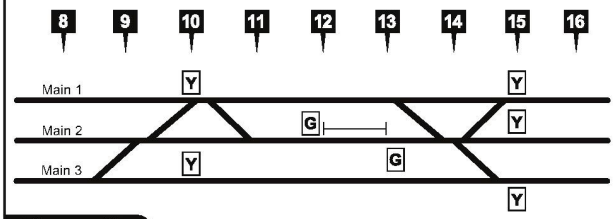



Diagram 25.

**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**

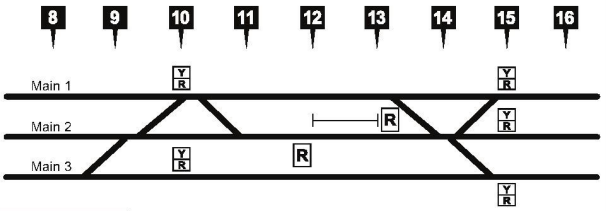
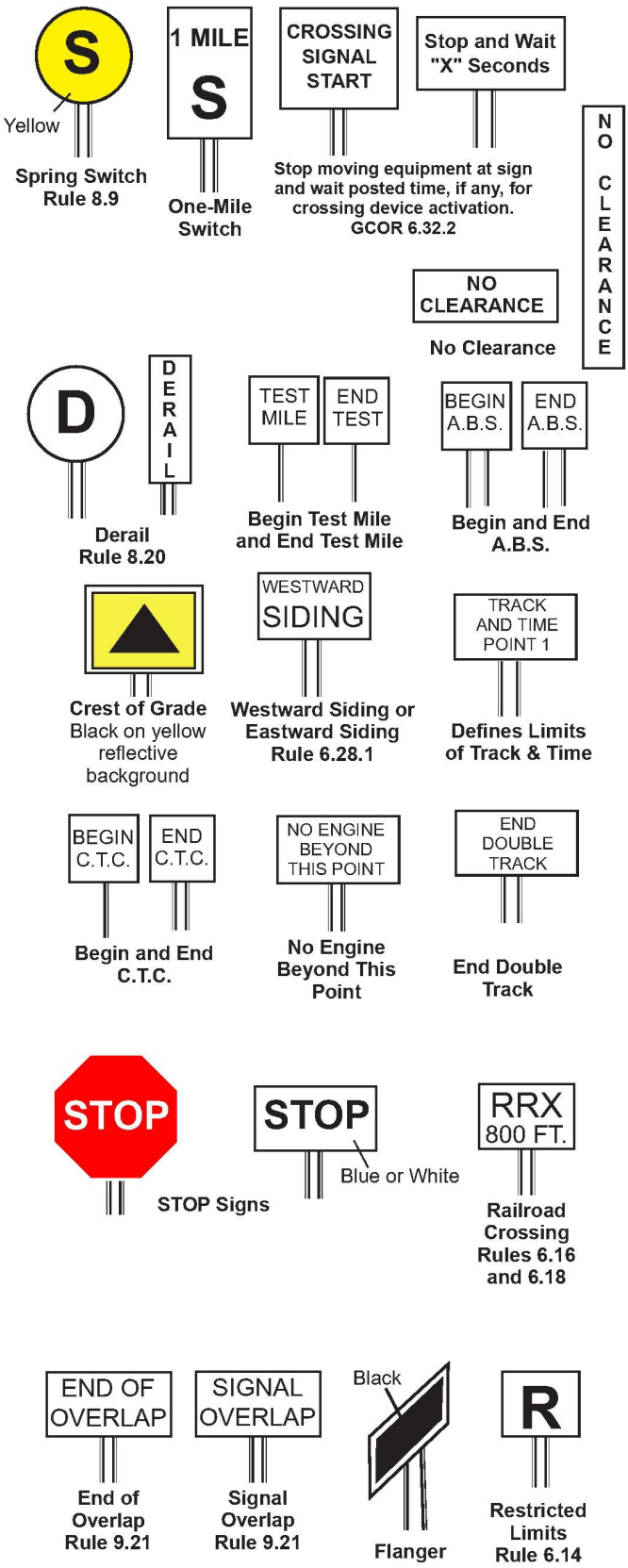
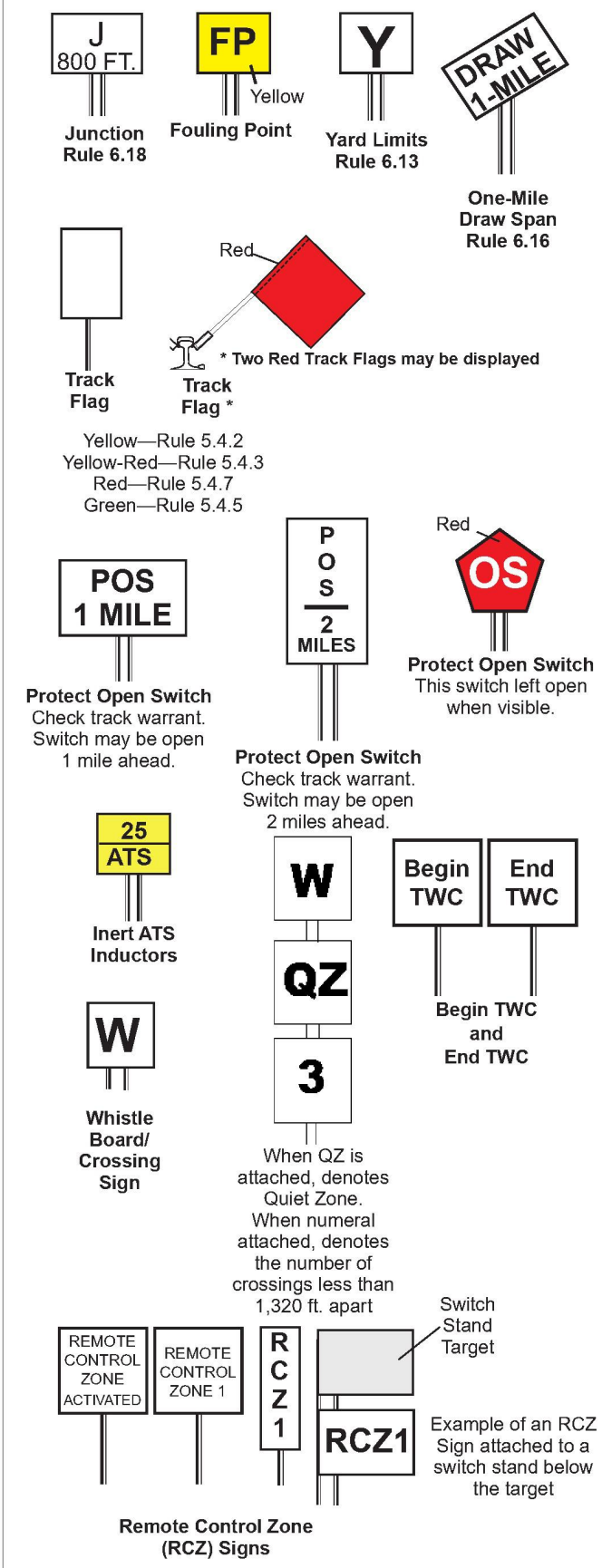



Diagram 26.

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Appendix B - Roadway Signs



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**Appendix C - Division/Subdivision Index**

| Division | Subdivisions |
|---|---|
| California | Alameda Corridor |
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| | Mojave |
| | Needles |
| | San Bernardino |
| | San Diego |
| | Stockton |
| Chicago | Aurora |
| | Barstow |
| | Beardstown |
| | Brookfield |
| | Chicago |
| | Chillicothe |
| | Des Moines |
| | Marceline |
| | Mendota |
| | Ottumwa |
| | Peoria |
| | St. Croix |
| | Thomas Hill |
| | Yates City |
| Heartland | Afton |
| | Amory |
| | Bayard |
| | Bellwod |
| | Birmingham |
| | Cherokee |
| | Council Bluffs |
| | Creston |
| | Cuba |
| | Fort Scott |
| | Giltner |
| | Hannibal |
| | Napier |
| | Omaha |
| | Ravenna |
| | River |
| | St. Joseph |
| | Thayer North |
| | Thayer South |
| Kansas | Arkansas City |
| | Boise City |
| | Dalhart |
| | Douglass |
| | Emporia |
| | Hereford |
| | La Junta |
| | Panhandle |
| | Raton |
| | Strong City |
| | Topeka |
| | Twin Peaks |
| Montana | Big Sandy |
| | Broadview |
| | Choteau |
| | Circle |
| | Colstrip |
| | Copper City |
| | Crosby |
| | Dickinson |
| | Fairfield |
| Montana (cont'd) | Forsyth |
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| | Glasgow |
| | Great Falls |
| | Grenora |
| | Helena |
| | Hettinger |
| | Hi Line |
| | Kootenai River |
| | Laurel |
| | Lewistown |
| | Milk River |
| | Mobridge |
| | Niobe |
| | Sarpy Line |
| | Scobey |
| | Sidney Line |
| | Sweet Grass |
| | Valier |
| Northwest | Bellingham |
| | Cherry Point |
| | Coeur d'Alene |
| | Columbia River |
| | Fallbridge |
| | Gateway |
| | Kettle Falls |
| | Lakeside |
| | New Westminster |
| | Oregon Trunk |
| | Scenic |
| | Seattle |
| | Spokane |
| | Stampede |
| | Sumas |
| | Yakima Valley |
| Powder River | Akron |
| | Angora |
| | Beatrice |
| | Big Horn |
| | Black Hills |
| | Brush |
| | Butte |
| | Campbell |
| | Canyon |
| | Casper |
| | Cody |
| | Dutch |
| | Front Range |
| | Golden |
| | Hastings |
| | Lester |
| | Orin |
| | Pikes Peak |
| | Pueblo |
| | Sand Hills |
| | Spanish Peaks |
| | Valley |
| | Wymore |
| Red River | Avard |
| | Bay City |
| | BBRX |
| | Chickasha |
| | Conroe |
| | Creek |
| | DFW |
| | Ft. Worth |
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| | Longview |
| | Madill |
| | Mykawa |
| | Plainview |
| | Red River Valley |
| | Red Rock |
| | Silsbee |
| | Slaton |
| | Sooner |
| | Venus |
| | Wichita Falls |
| Southwest | Carlsbad |
| | Clovis |
| | Coronado |
| | Defiance |
| | El Paso |
| | Gallup |
| | Glorieta |
| | Lee Ranch |
| | Mines |
| | Phoenix |
| | Seligman |
| | Springerville |
| Twin Cities | Aberdeen |
| | Allouez |
| | Appleton |
| | Brainerd |
| | Browns Valley |
| | Canton |
| | Casco |
| | Corson |
| | Devils Lake |
| | Drayton |
| | Glasston |
| | Grand Forks |
| | Hanley Falls |
| | Hannah |
| | Hib Tac |
| | Hillsboro |
| | Hinckley |
| | Jamestown |
| | KO |
| | Lakes |
| | Madison |
| | Marshall |
| | Mayville |
| | Midway |
| | Mitchell |
| | Monticello |
| | Moorhead |
| | Morris |
| | Noyes |
| | O'Neill |
| | Prosper |
| | Rolla |
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| | Westhope |
| | Zap Line |

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**Subdivision Index**

| Subdivision | Division |
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| Afton | Heartland |
| Akron | Powder River |
| Alameda Corridor | California |
| Allouez | Twin Cities |
| Amory | Heartland |
| Angora | Powder River |
| Appleton | Twin Cities |
| Arkansas City | Kansas |
| Aurora | Chicago |
| Avard | Red River |
| Bakersfield | California |
| Barstow | Chicago |
| Bay City | Red River |
| Bayard | Heartland |
| BBRX | Red River |
| Beardstown | Chicago |
| Beatrice | Powder River |
| Bellingham | Northwest |
| Bellwood | Heartland |
| Big Horn | Powder River |
| Big Sandy | Montana |
| Birmingham | Heartland |
| Black Hills | Powder River |
| Boise City | Kansas |
| Brainerd | Twin Cities |
| Broadview | Montana |
| Brookfield | Chicago |
| Browns Valley | Twin Cities |
| Brush | Powder River |
| Butte | Powder River |
| Cajon | California |
| Campbell | Powder River |
| Canton | Twin Cities |
| Canyon | Powder River |
| Carlsbad | Southwest |
| Casco | Twin Cities |
| Casper | Powder River |
| Cherokee | Heartland |
| Cherry Point | Northwest |
| Chicago | Chicago |
| Chickasha | Red River |
| Chillicothe | Chicago |
| Choteau | Montana |
| Circle | Montana |
| Clovis | Southwest |
| Cody | Powder River |
| Coeur d'Alene | Northwest |
| Colstrip | Montana |
| Columbia River | Northwest |
| Conroe | Red River |
| Copper City | Montana |
| Coronado | Southwest |
| Corson | Twin Cities |
| Council Bluffs | Heartland |
| Creek | Red River |
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| Crosby | Montana |
| Cuba | Heartland |
| Dalhart | Kansas |
| Defiance | Southwest |
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| Dickinson | Montana |
| Douglass | Kansas |
| Drayton | Twin Cities |
| Dutch | Powder River |
| El Paso | Southwest |
| Emporia | Kansas |
| Fallbridge | Northwest |
| Fairfield | Montana |
| Forsyth | Montana |
| Fort Scott | Heartland |
| Front Range | Powder River |
| Ft. Benton | Montana |
| Ft. Worth | Red River |
| Gallup | Southwest |
| Galveston | Red River |
| Gateway | Northwest |
| Giltner | Heartland |
| Glasgow | Montana |
| Glasston | Twin Cities |
| Glorieta | Southwest |
| Golden | Powder River |
| Grand Forks | Twin Cities |
| Great Falls | Montana |
| Grenora | Montana |
| Hanley Falls | Twin Cities |
| Hannah | Twin Cities |
| Hannibal | Heartland |
| Harbor | California |
| Hastings | Powder River |
| Helena | Montana |
| Hereford | Kansas |
| Hettinger | Montana |
| Hi Line | Montana |
| Hib Tac | Twin Cities |
| Hillsboro | Twin Cities |
| Hinckley | Twin Cities |
| Houston | Red River |
| Jamestown | Twin Cities |
| Kettle Falls | Northwest |
| KO | Twin Cities |
| Kootenai River | Montana |
| La Junta | Kansas |
| Lafayette | Red River |
| Lakes | Twin Cities |
| Lakeside | Northwest |
| Lampasas | Red River |
| Laurel | Montana |
| Lee Ranch | Southwest |
| Lester | Powder River |
| Lewistown | Montana |
| Longview | Red River |
| Lucerne Valley | California |
| Madill | Red River |
| Madison | Twin Cities |
| Marceline | Chicago |
| Marshall | Twin Cities |
| Mayville | Twin Cities |
| Mendota | Chicago |
| Midway | Twin Cities |
| Milk River | Montana |
| Mines | Southwest |
| Mitchell | Twin Cities |
| Mobridge | Montana |
| Mojave | California |
| Monticello | Twin Cities |
| Moorhead | Twin Cities |
| Morris | Twin Cities |
| Mykawa | Red River |
| Napier | Heartland |
| Needles | California |
| New Westminster | Northwest |
| Niobe | Montana |
| Noyes | Twin Cities |
| Omaha | Heartland |
| O'Neill | Twin Cities |
| Oregon Trunk | Northwest |
| Orin | Powder River |
| Ottumwa | Chicago |
| Panhandle | Kansas |
| Peoria | Chicago |
| Phoenix | Southwest |
| Pikes Peak | Powder River |
| Plainview | Red River |
| Prosper | Twin Cities |
| Pueblo | Powder River |
| Raton | Kansas |
| Ravenna | Heartland |
| Red River Valley | Red River |
| Red Rock | Red River |
| River | Heartland |
| Rolla | Twin Cities |
| San Bernardino | California |
| San Diego | California |
| Sand Hills | Powder River |
| Sarpy Line | Montana |
| Scenic | Northwest |
| Scobey | Montana |
| Seattle | Northwest |
| Seligman | Southwest |
| Sidney Line | Montana |
| Silsbee | Red River |
| Sioux City | Twin Cities |
| Slaton | Red River |
| Sooner | Red River |
| Spanish Peaks | Powder River |
| Spokane | Northwest |
| Springerville | Southwest |
| St. Croix | Chicago |
| St. Joseph | Heartland |
| St. Paul | Twin Cities |
| Stampede | Northwest |
| Staples | Twin Cities |
| Stockton | California |
| Strong City | Kansas |
| Sumas | Northwest |
| Sweet Grass | Montana |
| Thayer North | Heartland |
| Thayer South | Heartland |
| Thomas Hill | Chicago |
| Topeka | Kansas |
| Twin Peaks | Kansas |
| Valier | Montana |
| Valley | Powder River |
| Venus | Red River |
| Warwick | Twin Cities |
| Watertown | Twin Cities |
| Wayzata | Twin Cities |
| Westhope | Twin Cities |
| Wichita Falls | Red River |
| Wymore | Powder River |
| Yakima Valley | Northwest |
| Yates City | Chicago |
| Zap Line | Twin Cities |

# Reference Information

**Speed Tables**

| SPEED TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour |
| Min. | Sec. | | Min. | Sec. | | Min. | Sec. | |
| - | 36 | 100 | - | 58 | 62.1 | 1 | 40 | 36.0 |
| - | 37 | 97.3 | - | 59 | 61.0 | 1 | 42 | 35.3 |
| - | 38 | 94.7 | 1 | - | 60.0 | 1 | 44 | 34.6 |
| - | 39 | 92.3 | 1 | 02 | 58.0 | 1 | 46 | 34.0 |
| - | 40 | 90.0 | 1 | 04 | 56.2 | 1 | 48 | 33.3 |
| - | 41 | 87.8 | 1 | 06 | 54.5 | 1 | 50 | 32.7 |
| - | 42 | 85.7 | 1 | 08 | 52.9 | 1 | 52 | 32.1 |
| - | 43 | 83.7 | 1 | 10 | 51.4 | 1 | 54 | 31.6 |
| - | 44 | 81.8 | 1 | 12 | 50.0 | 1 | 56 | 31.0 |
| - | 45 | 80.0 | 1 | 14 | 48.6 | 1 | 58 | 30.5 |
| - | 46 | 78.3 | 1 | 16 | 47.4 | 2 | - | 30.0 |
| - | 47 | 76.6 | 1 | 18 | 46.1 | 2 | 05 | 28.8 |
| - | 48 | 75.0 | 1 | 20 | 45.0 | 2 | 10 | 27.7 |
| - | 49 | 73.5 | 1 | 22 | 43.9 | 2 | 15 | 26.7 |
| - | 50 | 72.0 | 1 | 24 | 42.9 | 2 | 30 | 24.0 |
| - | 51 | 70.6 | 1 | 26 | 41.9 | 2 | 45 | 21.8 |
| - | 52 | 69.2 | 1 | 28 | 40.9 | 3 | - | 20.0 |
| - | 53 | 67.9 | 1 | 30 | 40.0 | 3 | 30 | 17.1 |
| - | 54 | 66.6 | 1 | 32 | 39.1 | 4 | - | 15.0 |
| - | 55 | 65.5 | 1 | 34 | 38.3 | 5 | - | 12.0 |
| - | 56 | 64.2 | 1 | 36 | 37.5 | 6 | - | 10.0 |
| - | 57 | 63.2 | 1 | 38 | 36.8 | 12 | - | 5.0 |

| FEET | TENTHS OF A MILE |
|---|---|
| 528 | .1 |
| 1,056 | .2 |
| 1,584 | .3 |
| 2,112 | .4 |
| 2,640 | .5 |
| 3,168 | .6 |
| 3,696 | .7 |
| 4,224 | .8 |
| 4,752 | .9 |

## TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

To assist in determinig where to start sounding the whistle as described in Whistle Signal 7, use the following:
At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

| Train Speed | Delay to Sound Whistle |
|---|---|
| 40 MPH | 3 seconds |
| 35 MPH | 6 seconds |
| 30 MPH | 10 seconds |
| 25 MPH | 16 seconds |
| 20 MPH | 25 seconds |
| 15 MPH | 40 seconds |
| 10 MPH | 1 minute 10 seconds |

## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

This version contains the following updated and added pages:
**August 4, 2021:** 23.
**September 1, 2021:** 44.
**October 1, 2021:** 54, 55, 56, 57.
**November 4, 2021:** 10.
**November 11, 2021:** 53.
**December 1, 2021:** 14.
**January 1, 2022:** 15, 16, 17, 17a(added), 17b(added), 18, 19, 35, 36, 41, 50.
**April 1, 2022:** 52.
**May 1, 2022:** Title page, 34, 51.

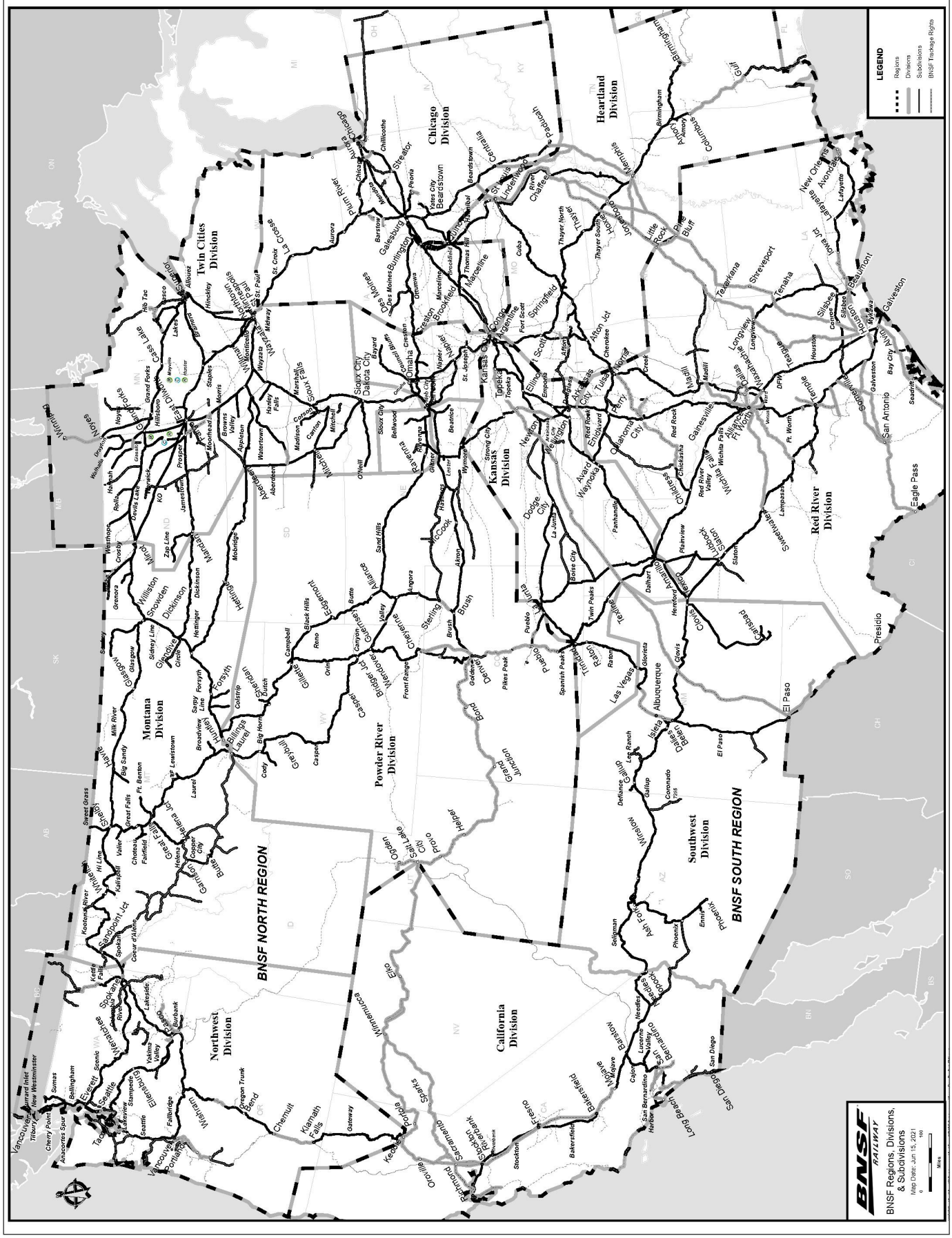
BNSF RAILWAY

# System Special Instructions

## All Subdivisions No. 2

In Effect at 0800
Central, Mountain and Pacific
Continental Time
**August 4, 2021**
(Including updates through
May 1, 2022)

TOC Home


LEGEND
Regions
Divisions
Subdivisions
BNSF Trackage Rights
BNSF NORTH REGION
BNSF SOUTH REGION
Northwest Division
Montana Division
Twin Cities Division
Chicago Division
Heartland Division
Powder River Division
Kansas Division
Red River Division
Southwest Division
California Division
BNSF RAILWAY
BNSF Regions, Divisions, & Subdivisions
Map Date: Jun 15, 2021
Miles

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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In timetable individual subdivision special instructions, the number at the bottom of the station table column entitled "Miles to Next Station" denotes total miles on the subdivision.

## 1. Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars. Refer to 1(B) regarding maximum authorized speed of engines (locomotives).

Amtrak trains operating in Cascade service may observe Talgo speeds. The consist must be entirely Horizon and/ or Amfleet Single Level Passenger Equipment. If the PTC Onboard Consist does not reflect the correct train type, crews may modify their consist to "Tilt" Train Type.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

| | MPH |
|---|---|
| Freight trains under 100 TOB | 60 |
| Freight trains 100 TOB and over | 45 |
| Freight trains handling empty cars | 55 |
| Exception: Intermodal Equipment, see SSI 1(C) | |
| Empty coal trains (if train list indicates no speed restricted equipment) | 60 |
| Key trains | 50 |
| Solid consist of military equipment | 55 |
| Trains with welded rail loaded in open end gondolas | 45 |
| Non-signaled territory | 49 |
| Against the current of traffic | 49 |
| Through turnouts | 10 |
| Tracks governed by GCOR / MWOR 6.28 | 10 |
| Tracks governed by GCOR / MWOR 6.28 where timetable indicates a speed greater than 20 MPH | 20 HER |
| Within Mechanical Department limits | 5 |
| Movements on or off turntables and droptables | 1 |

Foreign railroad locomotives - Speed restrictions posted inside the locomotive cab of foreign railroad locomotives which are less than that listed above only apply when locomotive is utilized as a lead, controlling locomotive.

| Equipment | Main | Branch |
|---|---|---|
| Side dump ballast cars, BNSF car kind YHA and YHH, loaded | 45 | 45 |
| AMTK 1400-1569 (material handling cars) | 60 | 60 |
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 | 45 | 45 |
| Boeing cars, loaded, BNSF 800100-800135, MTTX 978384, 978576, 978596, 978644, 978649, 978660, 978781, 979162, 980855, 981187, 981218 | 45 | 45 |
| Clay cars, RARW 3801-4199 | 45 | 45 |
| Flatcars, empty, NP 580400-580739 | 50 | 50 |
| Flatcars, empty, bulkhead wallboard: BN 616475-616674, CS 616375-616474 DJTX 9300-9398, SOU 115250-115274 | 45 | 45 |
| Flatcars, empty, bulkhead, Picked up enroute and not on conductor's wheel report or work order | 45 | 45 |
| Flatcars, empty or loaded, OTTX 93561, 97852, 97861, 97914, 97920 | 45 | 45 |
| Flatcars, loaded with track panels, ATSF 190298, 209144, 209149 | 35 | 35 |
| Gondolas, empty, KCS 801011-802930, CR 576026-579245 | 45 | 45 |
| Gondolas, empty, Picked up enroute and not on conductor's wheel report or work order | 50 | 50 |
| Gondolas, empty or loaded, PC 598500-598999 CR 598500-598990, SP 345000-345699 | 45 | 45 |
| Herzog clip cars, HZGX 153, 154, 155 | 50 | 50 |
| Herzog MPM Machines, designated to be placed next ahead of caboose or at rear of cabooseless trains. | 55 | 55 |
| Hopper cars, covered, empty, (unless no speed restriction is indicated by train documentation) ASGX 1-50, BCAX 50-149, CGLX 4200-4249, CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904, CRDX 20100-20199, CRDX 20200-20209, CRDX 20300-20324, CRDX 20525-20724, CSXT 242000-242299, DME 29000-29324, DJLX 97300-97319, FLOX 3200-3241, FLOX 983400-983414, GACX 3000-3139, GACX 3150-3196, GACX 3202-3359, GACX 3486-3510, GACX 7959-8008, GCCX 55000-55099, LCEX 801-820, LCEX 824-898, NAHX 21000-21054, NAHX 29700-29867, NAHX 320000-320399, NCUX 20001-20050, NCUX 20106-20130, NRLX 32500-32605, NRLX 32706-32725, NVCX 9500-9619, NS 294220-294319, RGCX 650-899, RGCX 902-1067, RGCX 1069-1142, RGCX 1183-1222, SDWX 9700-9919, SDWX 10000-10333, SDWX 11000, SHPX 432118-432137, SHPX 432057-432116, WW 7001-7300 | 45 | 45 |
| Hopper cars, empty, WFAX 84654-84700 TUGX 36001-36125 | 45 | 45 |

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| Equipment | Main | Branch |
|---|---|---|
| Loram, 400 and 300 series and Harsco rail grinder, traveling (not in work mode) as a train on its own power with a conductor or engineer pilot | 50 | 50 |
| Loram, 400 series and Harsco rail grinder, when controlling movement from the rear control cab in the lead. | 50 | 50 |
| Loram, 300 series rail grinder, when controlling movement from rear control cab in the lead | 40 | 40 |
| Refer to manufacturer's maximum operating speeds when operating on descending grades. | | |
| Loram, LMIX 409, 410, 412, 414, 415, 417, KMUX 110, 750<br>Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars.<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 50 | 45 |
| Loram, LMIX 203, 204<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 55 | 55 |
| Ore cars, empty, 35 ft., OLB 1000-1099 | 50 | 50 |
| Ore cars, loaded, 35 ft., OLB 1000-1099 | 45 | 45 |
| P811, BNSF 922999 | 50 | 50 |
| Plasser machines,PACX 293, 2630, 2645, 3024,4656, 4657, 4774, 4775 | 45 | 45 |
| Plasser THS 2000, tie gang consist | 30 | 30 |
| Plasser 08 & 09 Tampers, PTS 61, 62 & 90 Stabilizers, BDS 100 & 200 Ballast machines, MFS40 & 60 cars and ULS3000 conveyor cars (traveling in a train or under own power with a conductor or engineer pilot) | 50 | 50 |
| Ribbon rail cars, empty | 45 | 45 |
| Ribbon rail cars, loaded | 35 | 25 |
| Ribbon rail loading and unloading cars | 45 | 45 |
| Roadrailer equipment (empty or loaded) | 60 | 60 |
| Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader handled in trains | 30 | 25 |
| Exception: Locomotive cranes/pile drivers with booms removed and secured to a leads car with the counterweight properly secured to the locomotive crane/pile drive car body, billed as empty car. | 45 | 25 |
| Exception: Jordan spreader, BNSF 939800 - 939804 | 50 | 50 |
| Trains and engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.<br>Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by roadmaster or covered by specific instructions. | | |

| Equipment | Main | Branch |
|---|---|---|
| Scale test cars<br>Exception: cars listed below have a minimum gross weight of 100,000 lbs. and may move in any position in the train and at maximum authorized speed for which the train is qualified. BN 979020-979024, BN 979026, BNSF 979019, FGWX 100000-700000, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, WWBX 199917-199919 | 35 | 25 |
| Schnabel type cars, empty. Cars must be handled on or near the rear of trains not exceeding 100 cars in length, must not be handled in trains requiring pusher service and must not be humped or switched with motive power detached | 45 | 45 |
| Exception: GEGX 21154, GEGX 21155, GEX 80000, GEX 80002, MAMX 1001 | 40 | 40 |
| Exception: KRL 3600, KRL 3601, GEX 80003, HEPX 200, PTDX 202 | 25 | 25 |
| Tank cars, ACFX 17451-17495, NATX 10841-10865 | 45 | 45 |
| Tank cars, DVLX 4001-4190, UTLX 76517, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736-76738, 76742-76745, 76747, 76748, 76750, 76751, 78256-78269, 78272, 78274, 78278, 78281, 78285, 78287-78293, 78326, 78328-78333, 78336-78340, 78343, 78344, 78347, 78348, 78350. 78353 | 40 | 40 |
| Tank cars, empty, CORX | 50 | 50 |
| Tank cars, loaded, CELX 6400-6455, 10400-10443 (must not be handled nearer than 6 cars from locomotive when loaded) | 45 | 45 |
| Wedge plow or dozer, hauled in tow | 35 | 25 |

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH and 21 MPH can cause derailments due to harmonic rocking of cars. Where specified by timetable individual subdivision special instructions or general order, the following restrictions apply when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains consisting entirely of empty equipment, which cannot maintain a minimum speed of 21 MPH, must reduce speed to 13 MPH or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Passenger Trains/Engines**

| | MPH |
|---|---|
| Amtrak | 90* |
| Metrolink | 90* |
| Metra | 79* |
| Sounder (Sound Transit) | 79* |
| Northstar | 79* |
| All other classes | 70 |

Exception:
When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, maximum speed is 45 MPH.

* Engine without cars must not exceed 70 MPH.

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**1(C). Multiplatform Equipment**

**Intermodal Equipment**

| TSS Car Kind Codes | Car Description | Units or Segments | Axle Count | Control Valves and/or Car Count | Trailers=T Containers=C Either=T/C |
|---|---|---|---|---|---|
| Articulated cars | | | | | |
| QY | Doublestack | 5 | 12 | 3 | C |
| QV | Doublestack | 3 | 8 | 2 | T/C |
| QM | Spine Car | 3 | 8 | 2 | T/C |
| QC | Spine Car | 3 | 8 | 2 | T |
| QO | Spine Car | 5 | 12 | 3 | T/C |
| Q5 | Spine Car | 5 | 12 | 3 | C |
| QE | Spine Car | 5 | 12 | 3 | T |
| FM | Twin Flat | 2 | 6 | 2 | C |
| M2D M3D M2F M3F | Automax | 2 | 6 | 2 | |
| Non-Articulated Cars | | | | | |
| QW | Doublestack | 3 | 12 | 3 | T/C |
| QX | Doublestack | 4 | 16 | 4 | T/C |
| QT | Doublestack | 5 | 20 | 5 | C |
| QB QD | Twin Flats | 2 | 8 | 2 | T |
| QL | Twin Flats | 2 | 8 | 2 | T/C |
| Single Unit Intermodal Cars | | | | | |
| QU | Doublestack | 1 | 4 | 1 | T/C |
| QK | Doublestack | 1 | 4 | 1 | T/C |

**Car Kind Codes for Intermodal Equipment**

In addition to the intermodal equipment listed above, all car kind codes beginning with the letter M, P or Q are considered intermodal equipment. On cars shown above, only the first two characters are required to identify car type, with the exception of those identifying Automax cars. However, train lists may use more than two characters to identify a given car type.

**Definitions of Multiple-Unit Equipment**

*Articulated*—Refers to cars with multiple units (segments) that are connected with articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**

Tons per operative brake on cars above is determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.

(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.

(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**

In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Cabooses and any car loaded with container chassis are considered loads for the purpose of the rule.

Exception: Intermodal equipment with empty units/platforms are restricted to 55 MPH only if not equipped with constant contact side bearings (CCSB). BNSF train documentation now provides guidance on this empty unit restriction as it applies to the intermodal cars listed above. When handling all intermodal equipment, train documentation will provide one of three messages as follows:

1. Train does not contain any intermodal equipment with empty units without CCSB.
2. Train is restricted to 55 MPH due to intermodal equipment with empty units without CCSB.
3. Train may be restricted to 55 MPH due to possibility of intermodal equipment having empty units without CCSB - Inspect to Verify.

In the event message 3 above is on train documentation, if train is otherwise authorized to exceed 55 MPH, a visual inspection must be made to determine the loaded status of units/platforms on car(s) listed. The inspection results must be noted on train list for relieving crews' guidance on train's maximum authorized speed.

When adding intermodal equipment enroute, train documentation may not have been generated. When this occurs, consider such car(s) to be restricted to 55 MPH if any units/platforms are empty. Subsequent train lists produced for crews after a pick up enroute will provide speed information on cars based on if CCSB-equipped.

This does not apply to trains that are otherwise restricted to 55 MPH or less such as when handling cars not listed above that are empty, other equipment speed restrictions, fuel conservation speed limits, etc.

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

Cajon Sub..... MP 56.6 to MP 80, all tracks
Raton Sub ..... MP 639 to MP 660
Glorieta Sub ..... MP 775 to MP 810
Glorieta Sub ..... MP 818 to MP 842
Pikes Peak Sub ..... MP 52 to MP 66
Hi Line Sub..... MP 1151 to MP 1166, both tracks
Midway Sub..... MP 0.5 to MP 2, both tracks
Phoenix Sub ..... MP 381.0 to MP 402.0
St. Paul Sub ..... MP 430 to MP 5, both tracks
Scenic Sub ..... MP 1694.5 to MP 1731.3
Stampede Sub..... MP 41.0 to MP 58.5
San Diego Sub ..... MP 250 to MP 255 (NCTC)
Gateway Sub..... MP 178.0 to MP 188.0

**On UP Railroad:**

Mojave Sub ..... MP 331.3 to MP 381.3
Moffat Tunnel Sub ..... MP 19 to MP 50
Moffat Tunnel Sub ..... MP 58.1 to MP 61.7
Provo Sub..... MP 630.5 to MP 638.1
Provo Sub..... MP 652 to MP 682
Roseville Sub ..... MP 115 to MP 170
Roseville Sub ..... MP 195 to MP 210

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## 2(B). Locomotive Data Tables

| DC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| SW1 | 4 | 0 | 600 | 99 |
| SW10 | 4 | 0 | 1,000 | 125 |
| NW10 | 4 | 0 | 1,200 | 126 |
| SW12 | 4 | 0 | 1,200 | 125 |
| SW15 | 4 | 0 | 1,500 | 131 |
| MK1200G | 4 | 0 | 1,200 | 125 |
| SWBL-W | 4 | 0 | 1,500 | 131 |
| GP7 | 4 | 0 | 1,500 | 125 |
| GP9 | 4 | 4* | 1,750 | 130 |
| GP9B | 4 | 0 | 1,750 | 124 |
| GP10 | 4 | 0 | 1,800 | 130 |
| GP15, GP15-1 | 4 | 0 | 1,500 | 129 |
| GP18 | 4 | 0 | 1,800 | 124 |
| GP20 | 4 | 4BT | 2,000 | 131 |
| GP28 M/P | 4 | 4BF | 1,800 | 130 |
| GP30 | 4 | 4BT | 2,500 | 131 |
| GP35 | 4 | 4BT | 2,500 | 133 |
| GP38,GP38-2 | 4 | 4ET | 2,000 | 143 |
| GP39, GP39-2 | 4 | 4EF# | 2,300 | 135 |
| GP40 M,E,-2 | 4 | 4BF | 3,000 | 139 |
| GP40X | 4 | 4BF | 3,000 | 139 |
| GP50 | 4 | 4EF | 3,600 | 138 |
| GP53, GP53L | 4 | 4EF | 3,000 | 136 |
| GP60M | 5+ | 5EF+ | 3,800 | 137 |
| GP60B | 5+ | 5EF+ | 3,800 | 135 |
| B23-7 | 4 | 4EF | 2,300 | 134 |
| B30-7A | 4 | 4BF | 3,000 | 138 |
| B36-B-7 | 6+ | 4EF | 3,600 | 140 |
| B-39-8 | 6+ | 5EF+ | 3,900 | 140 |
| B-40-8 | 6+ | 5EF+ | 4,000 | 142 |
| SD7 | 6 | 5BF+ | 1,500 | 157 |
| SD9 | 6 | 5 * | 1,750 | 184 |
| SD18 | 6 | 0 | 1,800 | 175 |
| SD35 | 6 | 5 * # | 2,500 | 195 |
| SD38-2 | 6 | 6 * # | 2,000 | 184 |
| SC38P | 6 | 6BF | 2,000 | 196 |
| TEBC6 | 6 | 6B | 2,000 | 194 |
| SD39 | 6 | 6EF | 2,500 | 195 |
| SD40, SD40-2 | 6 | 6EF * # | 3,000 | 196 |
| SD45, SD45-2 | 6 | 6ET | 3,600 | 198 |
| SD50 | 6 | 6EF | 3,600 | 194 |
| SD60, SD60M | 7+ | 8EF+ | 3,800 | 201 |
| SD70M | 7+ | 9EF+ | 4,000 | 200 |
| SD75M | 7+ | 9EF+ | 4,300 | 197 |
| C30-7 | 6 | 6EF# | 3,000 | 209 |
| SF30C | 6 | 6EF | 3,000 | 160 |
| C36-7 | 6 | 6EF | 3,600 | 197 |
| C40-8 | 7+ | 8EF+ | 4,135 | 197 |
| C44-9W | 8+ | 8EF+ | 4,400 | 196/210 |
| ES44DC | 8+ | 8EF+ | 4,400 | 210 |

| AC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| **C44AC[1] AC4400CW[1] AC4400EV[1] CW44AC[1]** | 8+ | 10EF+ | 4,400 | 210 |
| 1TM c/o | 8+ | 8EF+ | | |
| 2TM c/o | 6 | 6EF | | |
| 3TM c/o | 4 | 5EF | | |
| 4TM c/o | 3 | 3EF | | |
| 5TM c/o | 2 | 2EF | | |
| **C60[1] C60AC[1]** | 8+ | 12EF+ | 6,000 | 210 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **ES44AC[1]** | 8+ | 10EF+ | 4,400 | 208 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **SD70MAC** | 8+ | 8EF | 4,000 | 208 |
| 1 Truck c/o | 4 | 5EF | | |
| **SD70ACE** | 8+ | 10EF+ | 4,300 | 208 |
| 1TM c/o | 6 | 6EF | | |
| **SD70ACE4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD70ACT4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD80MAC** | 8+ | 10EF | 5,000 | 210 |
| 1 Truck c/o | 5+ | 5EF | | |
| **SD90/43MAC** | 8+ | 10EF | 4,300 | 208 |
| 1 Truck c/o | 4 | 6EF | | |
| **SD90MAC** | 8+ | 11EF | 6,000 | 208 |
| 1 Truck c/o | 6 | 6EF | | |
| **ES44C4[1] AC44C4M[1]** | 8+ | 8EF+ | 4,400 | 208 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **ET44C4[1]** | 8+ | 8EF+ | 4,400 | 214 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |

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Note: Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.

| | |
|---|---|
| + | Power or dynamic brake axle rating exceeds actual axles |
| ¹ | GE/EMD Locomotives (C44AC, C60AC, SD70ACT4, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives. |
| % | PTC Equipped |
| * | May not be equipped with dynamic brakes |
| # | May be equipped with standard range dynamic brakes |
| E | Extended dynamic brake range |
| B | Basic dynamic brake range |
| F | Flat dynamic brake system |
| T | Tapered dynamic brake system |

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in timetable individual subdivision special instructions.

| |
|---|
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 |
| Dozers |
| Empty ribbon rail cars (if moving with no train list or if identified as “Rear End Only” on train list) |
| Herzog clip cars: HZGX 153, 154, 155 |
| Herzog MPM:<br>HZGX 164, 165, 167, 174, 1740, 176, 1760, 178, 1780, 179, 1790, 180, 1800<br>HZGX 189, 1890, 18900, 192, 1920, 19200, 193, 1930, 19300, 194, 1940, 19400, 195, 1950, 19500, 199, 1990, 19900, 200, 2000, 20000, 205, 2050, 20500, 206, 2060, 20600, 207, 2070, 20700 |
| Jordan spreaders |
| Locomotive cranes |
| Loram, LMIX 203, 204, 409, 410, 412, 414, 415, 417, KMUX 110, 750 |
| Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars |
| Outfit cars (Exception: Univans may be placed anywhere in the train.) |
| P811, BNSF 922999 |
| Pile drivers |
| Plasser machines, PACX 293, 2630, 2645, 3024, 4656, 4657, 4774, 4775 |
| Plasser THS 2000, tie gang consist |
| Rear end only cars |
| Ribbon rail loading and unloading cars |
| Rotary snowplows |
| Wedge plows |

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

Locomotive cranes/pile drivers, wrecking derricks or similar equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by Roadmaster or covered by specific instructions. This equipment must not be humped, cut off in motion or struck by any car moving under its own momentum.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Hand brakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant).
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the timetable individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks as outlined in SSI Item 5.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines (including foreign line cars) having:

- elevated hoses for dump door air line, or
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level),

must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

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**3(D). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(E). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locking devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

A. If the adjacent track is a Main Track, controlled siding or other track where CTC is in effect, authority must be obtained as prescribed by MWOR 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR 6.19 to control movement by the work area.
B. If the adjacent track is a track governed by GCOR/MWOR 6.28 (i.e. yard, industry track, etc.), movement must not be permitted to pass air dump cars which are being charged or being unloaded.

**3(F). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

A. Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
B. Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
C. Cars with defective couplers may be transported to repair facilities behind caboose.
D. A crew transport train consisting of no more than two cabooses positioned between two locomotives may be operated during inclement weather conditions. The lead locomotive must be the controlling locomotive, with trailing locomotive isolated.

**3(G). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 MPH through other than Main Track turnouts.

**3(H). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(I). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid-drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**3(J). Herzog Articulated Equipment**

Herzog articulated equipment (all-purpose machines) are restricted as rear end only because drawbar connection between Herzog locomotive and cars does not have vertical restraint.

Switching Restrictions: All Herzog equipment must not be humped or handled with other freight cars during switching operations. This equipment must be cut off or set over so that remaining cars can be switched.

**3(K). Herzog Rail Unloading Machine**

A Herzog Rail Unloading Machine (RUM) may be coupled to a work train for rail unloading purposes only. The train must remain stationary while the RUM couples to the train in self-propelled mode. The following restrictions apply to trains with a Herzog RUM coupled to the train:

- All train movements may be made only at the direction of a qualified Herzog RUM operator accompanying the equipment.
- Maximum speed with Herzog RUM on trailing end of the movement is 15 MPH.
- Maximum speed with Herzog RUM on leading end of the movement is 10 MPH.

**3(L). Handling Roadway Equipment Equipped with Couplers and Air Hoses by Trains or Engines**

To prevent equipment damage, the following restrictions apply when handling Roadway Equipment equipped with rail car couplers and air hoses during train or switching movements:

- All air hoses must be coupled and air brakes cut in.
- An Engineering employee must be present when switching this equipment, including shoving movements.
- When moving between work locations all P811, UC01, UC03, UC08, UC09, UC10 and SC29-35 machines, and the flat cars transporting supporting equipment accompanying these machines, must be handled in a dedicated unit train or a dedicated work train. No additional rail cars may be handled in these trains.
- The heaviest machine may be placed as the rear car of a train only as directed by an Engineering employee.
- Maximum allowable speed while transporting in a train is 50 MPH.

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**4. Geometry Test Car Instructions**

Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, 93 and NXGX 390 (NxGen Car) must move in train by themselves. Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, and 93 are not required to have an ETD at the rear of the car when the car is occupied.

Work Orders for trains handling unmanned geometry test cars BNSF 90, 91, 92, and 93 will include instructions advising the conductor to call the Geometry Car Desk at 817-352-4559.

BNSF 808306, BNSF 808382, BNSF 808387, BNSF 808426, BNSF 808655 and BNSF 808683 are buffer cars assigned to Geometry Car service. When operating in a Geometry Car Consist, these buffer cars are considered to be passenger train equipment with a maximum authorized speed of 70 MPH.

Trains handling test cars AAR 112, BNSF 82 and BNSF 83 behind the locomotive consist may operate without further restricting the train from the maximum authorized speed designated in timetable individual subdivision special instructions. GCOR 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR 5.12 or 5.13. These cars are considered to be occupied at all times.

**FRA Track Geometry Inspection Cars**

The Federal Railroad Administration (FRA) Office of Railroad Safety-Automated Track Inspection Program (ATIP) manages a fleet of geometry test cars that measure track geometry for compliance with the Federal Track Safety Standards. FRA geometry cars are pulled behind a railroad-owned locomotive and staffed with FRA employees and contractors.

**FRA Geometry Car Operation**

1. Each train dispatcher and train crew will be governed by these instructions.
2. Before ATIP testing commences, the FRA representative (assisted by the test car director) is responsible for overall safety and will:
   a. Conduct a face-to-face job safety briefing with the train crew and all occupants of the test car concerning onboard safety appliances and standard operating procedures.
   b. Be aware of and discuss the operational and safety conditions, and on-track protection procedures, which may change throughout the course of the ATIP test; and update the job safety briefing accordingly.
3. The FRA representative will communicate directly with the railroad to ensure all operating rules, special instructions, and safety rules in effect on the test route are understood and correctly applied.
4. Trains consisting entirely of FRA geometry cars are restricted to BNSF timetable passenger train speeds, and must not exceed the following maximum equipment speeds: DOTX 216, 125 MPH; DOTX 217, 219, 220 and 221, 90 MPH; and DOTX 218, 80 MPH.
5. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew. The FRA Geometry Car operator relies on the train crew to identify relevant railroad physical characteristics, movement authority limits and authorized speeds.

**FRA Geometry Car Protection**

1. Neither FRA nor contractor employees will operate a railroad switch or derail, and will rely upon a railroad employee to perform that function. After receiving authority for placement from the appropriate railroad representative, protective devices owned by FRA, i.e., signs, derails, and locking devices, will be applied by an FRA representative.
2. FRA geometry cars must not be relocated or coupled to other rolling equipment without permission of FRA. At the request of FRA or the railroad, the following additional protective measures must be used:
   a. Within a locomotive servicing area or car shop area, the railroad's Blue Signal Protection rules and procedures will govern.
   b. When FRA geometry cars are unoccupied, FRA may request additional protection, such as posted guards, provided by the railroad and reimbursed by FRA.
   c. Where provided, a remotely controlled switch, providing entrance to the track occupied by FRA geometry cars, will be aligned against movement to that track. Blocking devices applied by the control operator will be placed on the switch and signal controls to prevent undesirable access.
   d. A manually operated switch will be aligned against movement to a track occupied by the FRA geometry car, and secured with an effective locking device, exclusive to FRA. In addition, the switch stand's operating mechanism will be equipped with an FRA-provided, visible, all-weather display tag, warning any users: "OUT OF SERVICE - DO NOT OPERATE."
   e. If a switch-locking device cannot be provided, as described above, FRA-provided portable derails will be used as an alternative to restrict access in either direction. In addition to the portable derails, the placement of warning signs will be displayed, indicating the presence of FRA geometry cars. The warning signs will be affixed or adjacent to the derail. FRA-provided derails will not be placed nearer than 150 feet from each end of the geometry cars, except where appropriate.
   f. If an FRA geometry car is standing alone, in addition to applying the hand brake, one wheel will be securely chocked to prevent movement.
   g. Either on a Main Track or other than Main Track, before anyone goes on, under, or between FRA track geometry cars, the locomotive engineer will apply the independent brake on the locomotive, remove the locomotive reverser, and open the field generator switch. The individual requiring protection will place a "Do Not Operate" tag on the locomotive control stand at a location where it is readily visible to the locomotive engineer or operator at the controls of that locomotive. The "Do Not Operate" tag may only be removed by the person who placed it on the locomotive control stand. Additionally, if adjacent tracks are, or will be, fouled by the individual going on, under, or between the FRA track geometry car, appropriate adjacent track protection must be afforded before going on, under, or between the car.

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**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- For hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E).
- For tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E).

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601399) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

The actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to locomotive cranes, ribbon rail cars or specialized work equipment.

Item 1(B) of the individual subdivision special instructions may include loaded railcar weight references, in which case the actual car weight may exceed the maximum by up to one ton due to weighing tolerances.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

**Table 5.**

**Car Restrictions**

| Line No. | No/ Axles and/ or Car Length | Typical Car Types & Partial Listing of Representative Car Number Series | **Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H**<br>Indicated weight limits are applicable to either single car or multiple car movements except for:<br>"143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements.<br>"P," which denotes that this type of car is permitted without special autohrization.<br>"NP," which denotes that this type of car is not permitted without special authorization. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E | F | G | H |
| 1 | 4 axles & length less than 35'0" | Hopper | 89 | NP | 89 | NP | NP | NP | NP | NP |
| 2 | 4 axles & length 35'0" to 36'11" | Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179 | 134 | 117 | 134 | 117 | 110 | 110 | 110 | 110 |
| | | | A | B | C | D | E | F | G | H |
| 3 | 4 axles & length 37'0" to 38'11" | Hopper, tank cars ATSF 82056-82990, 176900-177861 | 141 | 123 | 141 | 123 | 117 | 117 | 117 | 117 |
| 4 | 4 axles & length 39'0" to 40'11" | Hopper, tank cars BN 435500-435999 | 143 | 131.5 | 143 | 131.5 | 123 | 123 | 123 | 123 |
| 5 | 4 axles & length 41'0" to 42'11" | Hopper, tank cars BN 476000-476019 | 143 | 143 | 143 | 143 | 134 | 134 | 134 | 131.5 |
| 6 | 4 axles & length 43'0" to 44'10" | Hopper, tank cars | 143 | 143 | 143 | 143 | 136 | 136 | 134 | 131.5 |
| 7 | 4 axles & length 44'11" to 49'5" | Hopper, gondola, tank cars BN 686000-686054 COILCAR | 143 | 143 | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 8 | 4 axles & length greater than or equal to 49'6" | Hoppers, flats, gondolas, tank cars | 143X | 143X | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 9 | 6 axles | ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 LMIX 403, 409, 410, 412, 414, 418, NS 185541-185542 | 197 | 197 | 197 | 197 | 197 | 197 | 185 | NP |
| 10 | 6 axles | DODX 39810-39832, KRL 600430 | 197 | 197 | 185 | 185 | 185 | 178 | 175 | NP |
| 11 | 6 axles | Others | 185 | 185 | 170 | 170 | 170 | 165 | 160 | NP |
| 12 | 8 axles & length greater than or equal to 80'0" | ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021 | 263 | 263 | 263 | 263 | 263 | 235 | 235 | NP |
| 13 | 8 axles & length greater than or equal to 55'0" and less than 80'0" | | 263 | 255 | 263 | 255 | 235 | 235 | 235 | NP |
| 14 | 8 axles & length less than 55'0" | ATSF 90020-90023 | 220 | 195 | 220 | 195 | 180 | 180 | 180 | NP |
| 15 | | Articulated Intermodal | P | P | P | P | P | NP | NP | NP |

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**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Any foreign line carrier operating on BNSF that sets out equipment must notify the BNSF train dispatcher and the BNSF Mechanical Help Desk at the earliest opportunity and provide the following information:

- Equipment being set out including the engine/car number.
- Location where equipment was set out.
- Reason equipment was set out (e.g. flat spots, broken brake rigging, hot bearing, etc.).
- Commodity if a car contains a hazardous material, including but not limited to, Inhalation Hazard car(s).
- Any other pertinent information.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were performed enroute.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the proper track NUMBERS where they report work. Refer to the TRKLIST command in TSS for track numbers at a station or on a subdivision.

**Unit Trains (C, E, G, J, U, and X)**

Unit Trains at origin must report a "Pick Up" event and unit trains at destination must report a "Set Out" event using VTR.

- Report "Set Out" time through the VTR when the set out work is complete at the industry track, trains crews are clear of the equipment and the customer can begin processing the train, or when the unit train is handed off to the facility operator.
- Report "Pick Up" time through the VTR when the train begins departure from the industry track, departing the customer facility.

Train Work Order Package includes the following documents:

- Train list and profile.
- FRA 215.9 Mechanical Defective Cars List (if applicable).
- Hazardous manifest (if train contains hazardous materials).
- Work order for each station.
- Track list of each track to be worked.
- Supplemental Work Order Form.

The following reporting codes will be used to report work performed:

| Reporting Codes | | |
|---|---|---|
| Reporting Instructions for Scheduled/Unscheduled Work | | |
| Code | | |
| CC | CARRIERS CONVENIENCE | (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number. |
| DD | CARS DELIVERED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| IP | INTRA-PLANT SWITCH | (Code, date, time, zone/track/spot) |
| MO | MOVE | (Code, date, time, station name, zone/ track/spot). Use only to reposition a placed car to correct customer inventory. |
| ND | NOT DONE | (When ND code is used, enter ND explanation code or a full written explanation.) |
| OF | CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD | (Code, date, time, station name, zone/ track, name of road and person's name refusing cars) |
| PK | PICKUP | (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order. |
| PU | PULL | (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time, station, zone/ track where cars were left.) |
| RR | CARS RECEIVED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| RS | RESPOT | (Code, date, time, zone/track spot) |
| SO | SETOUT | (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/ number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD. |
| SP | SPOT | (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number. |
| TU | CARS TURNED ON WYE OR TURNTABLE | (Code, date, time, station name, zone/ track/spot) |

**Not Done Reasons - Potential Charge to Customer**

Car Can't Be Pulled - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

Car Can't Be Spotted - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

**Not Done Reasons - Not Chargeable to Customer**

Operation Reason

- Bad Order Car
- Done in Other Direction
- Tonnage Restrictions or Loco Problems
- Instructed to do Other than Scheduled Industry Work
- Not Switched into Train - Unavailable
- Hrs of Service Expired or Short on Time
- Weather Conditions
- Not Granted Mainline Time by Dispatcher
- Other Operating Exception

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**Reporting Methods**

*Radio*—With the exception of trains using the Work Order Reporting system or when reporting work trains, Voice Train Reporting using the MRAS/PBX system is the preferred method of reporting work. Conductors and engine foremen are expected to report as soon as possible after work is performed at each station. If Voice Train Reporting (VTR) or Work Order Reporting System (WORS) is used to report, it is not necessary to call Customer Support.

*Telephone or Cellular Phones*—Telephone or cellular phones assigned to conductors and engine foremen may be used when MRAS/PBX or radio communication is unavailable or radio is congested in order to provide timely reporting in the field.

*Electronic Device*—Computer reporting will not require any written documentation to be forwarded.

Conductors and engine foremen are required to call their designated Customer Support Specialist anytime there are questions or problems with work order information or work to be performed during their tour of duty.

**Work Order Codes**

There are three types of work order codes that appear on work orders: Request Codes, Status Codes and Hold Codes.

| Request Codes | | |
|---|---|---|
| **Code** | **Displays Work to Be Performed** | |
| **IP** | **INTRA-PLANT SWITCH** | Customer request to move a car originally spotted correctly to another spot or track within the industry. Cars are commonly moved per this request to complete loading, for inspection, etc. This switch is chargeable to the customer. |
| **PK** | **PICKUP** | Cars available to be picked up by train, local, road switcher at station. |
| **PU** | **PULL** | Customer request to move a car from an industry track to another track or scheduled destination. |
| **RS** | **RESPOT** | This switch is not chargeable to the customer and should be used only when correcting a railroad error. Customer request to move a car to a different track or spot within the industry after being placed incorrectly. |
| **SO** | **SETOUT** | Cars scheduled to be set out by train, local, road switcher at station. |
| **SP** | **SPOT** | Customer request to spot car for loading/unloading. |
| **TU** | **CARS TURNED ON WYE OR TURNTABLE** | Request to turn a car previously spotted and re-spot. |

| Status Codes | | |
|---|---|---|
| **Displays Current Status of Cars (Does not require any work to be performed)** | | |
| **Code** | | |
| **CP** | **CP** | Constructive placement. (Condition between carrier and customer.) |
| **DD** | **CARS DELIVERED IN INTERCHANGE** | Displays cars scheduled for interchange delivery to a connecting road. |
| **OF** | **CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD** | Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars. |
| **PL** | **PLACED** | Car on spot. (Displays car status and not a request.) |

| Hold Codes | |
|---|---|
| **Carrier/Customer Instructions Have Not Been Provided** | |
| **Scheduled Train Field** | |
| **HOLD ED** | Car to be held for equipment distribution. |
| **HOLD EH** | Car is to be held for embargo. |
| **HOLD HL** | Car is HIWIDE and has not been scheduled to a train. |
| **HOLD LS** | Car is on floating lease being held for customer order. |
| **HOLD ME** | Car is to be held for mechanical inspection. |
| **HOLD MT** | Car not scheduled for outbound train. |
| **HOLD NI** | Car has no instructions for spotting. |
| **HOLD OT** | Car is to be held for local order. |
| **HOLD WH** | Car is to be held for weighing. |
| **HOLD HF** | Car has no measurements/clearances. |
| **SCHI Code Field** | |
| **DO** * | Written delivery order. DO NOT SPOT. |
| **NC** * | Non-credit customer. DO NOT SPOT. |
| **SO** * | Car billed shipper's order. DO NOT SPOT. |
| **ZNTKSP Field** | |
| **00 00 00*** | DO NOT SPOT |

* Do not spot cars with '00 00 00' in the ZNTKSP field or cars with NC, DO or SO in the SCHI field.
(Cars may be pulled or picked up and moved to a location for further disposition when these codes are displayed.)

Work order documents will display work order codes as outlined by customer or carrier for specific instructions to conductors or engine foremen. They will be located in the Special Car Handling Instructions (SCHI) column or in the Scheduled Train column.

**Hours of Service**

Conductors or engine foremen should plan ahead and report scheduled and unscheduled work before hours of service expire. Conductors and engine foremen who relieve crews whose hours of service have expired will be responsible for reporting work performed during their tour of duty. If a crew's hours of service expire and they are unable to report scheduled or unscheduled work, the information must be passed on to the relieving conductor, engine foreman or supervisor who will be responsible to report work for the previous job.

**Pick Up in Block**

When picking up cars, enroute, trains must pick up in block unless otherwise advised by train dispatcher or in conflict with current train makeup instructions.

**7. Dimensional and Special Shipment Restrictions**

All employees involved in handling dimensional or special shipments must be familiar with and are governed by these instructions.

Dimensional loads on BNSF are defined as wider than 11' and/or higher than 17' ATR and/or longer than the length of the car.

Transportation Supervisors: See Management Instruction regarding advance notification requirements for dimensional shipments routed on UPRR or within the state of California.

a. Any dimensional and/or oversize car or special shipment must be accompanied by one of the following: message included with train's work order, track bulletin or message issued by BNSF Clearance Bureau.

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b. Before a dimensional shipment can be assigned to a train the supervisor in charge of train or yard crews (Terminal Manager, Trainmaster, Assistant Trainmaster, Yardmaster, etc.) at that location, or the conductor or yard foreman where no supervisor of train or yard crews is on-duty, must review and verify the dimensional clearance bulletin to ensure shipment is clear over the designated route of travel. After the review is complete the shipment may be assigned to the train appropriately. Issues regarding scheduling and/or train set, please contact Service Scheduling at 817-867-2000. Any issues regarding additional clearance segments and/or a lack of clearance, please contact the Dimensional Clearance Team for assistance at high.wide@bnsf.com.

c. Before a dimensional shipment can be moved in the yard, train or yard crews handling the dimensional shipment must ensure there is adequate clearance on adjacent tracks for safe movement. Clearance bulletins issued by the High Wide Team only protect BNSF main lines.

d. Before a dimensional or special shipment can be moved in a train the supervisor in charge of train crews (Trainmaster, Assistant Trainmaster, Yardmaster) at that location, or the conductor where no supervisor of train crews is on-duty, must obtain permission from the train dispatcher. This does not relieve conductor from complying with GCOR 1.47. When yard supervisors are notified of expected arrival of wide cars, precautions must be taken to safeguard employees in yard.

e. Before a dimensional shipment is picked up on line, conductor must obtain permission from the train dispatcher. When dimensional or special shipment is set out on line, conductor must promptly notify the train dispatcher.

f. Train dispatcher must issue appropriate track warrant, track bulletin or message when dimensional shipment restricts opposing train and confirm message received.

g. Train with dimensional shipment must not pass or be passed by a train in the same direction unless authorized by the train dispatcher or proper safeguards taken.

h. To provide for close observation enroute, all dimensional shipments must be placed in a block next to the lead locomotive consist, or due to the following exceptions as near the lead locomotive consist as possible:

1. Dimensional shipments, including idler cars moving with dimensional shipments, must be placed in compliance with minimum weight requirements outlined in train makeup rules.
2. On trains destined to or operating in the state of California, and train room permits, dimensional shipments must be no closer than the 6th car or platform from the lead locomotive consist. Dimensional shipments placed in train to comply with these requirements are also considered in compliance when enroute from the state of California.
3. Trains received from foreign railroads with dimensional shipment placement other than described above, may proceed to a location specified by train dispatcher to correct the condition.
4. When dimensional shipment is a shiftable load, GCOR 1.37 applies.

Boeing dimensional shipments, identified as having contents ACFTEQ on the train list, must be placed ahead of other dimensional shipments. Trains with one or more dimensional Boeing shipments with contents ACFTEQ, are limited to a combination not to exceed 10 loads and/or empties.

The following idler cars do not count towards the 10 car combination limitation:

| | | |
|---|---|---|
| MTTX 978773 | TTMX 80662 | XTTX 146316 |
| TBCX 737002 to TBCX 737042 | TTMX 80681 | XTTX 146319 |
| TBCX 737067 to TBCX 737084 | TTMX 80857 | XTTX 146322 |
| TTMX 80139 | XTTX 146251 to XTTX 146254 | XTTX 146323 |
| TTMX 80300 | XTTX 146262 | XTTX 146337 |
| TTMX 80635 | XTTX 146264 to XTTX 146267 | XTTX 146339 |
| TTMX 80657 | XTTX 146276 | |

These are specialized Boeing Service idler cars weighing 45 tons or more and may be billed loaded or empty, depending on destination. Trains handling all empty dimensional Boeing cars with contents ACFTEQ are limited to maximum of 25.

Note: In the application of the above, articulated autoveyors (car kinds M2F and M3F) are not considered dimensional shipments. (See Item 46)

No more than five uncovered assembled airplane fuselages may be transported in a train without approval from Boeing.

Airplane fuselages transported in trains from Wichita to Renton must be turned as soon as possible to move nose first in the direction of train travel unless otherwise approved by Boeing.

i. Employees are prohibited from riding excessive dimension cars. This restriction does not apply to:
- Auto-Max cars (car types M2F and M3F)
- Boeing cars - XTTX 146220, XTTX 146232, XTTX 146304, XTTX 146311, XTTX 146298, XTTX 137353

j. Train crews handling dimensional and/or oversize car or special shipment car(s) approaching locations controlled by the train dispatcher and where these car(s) are restricted should communicate with the train dispatcher and jointly determine if a meet or pass of any other equipment at the restricting location(s) can be accomplished safely.

k. When the dimensional message indicates “Stop, Proceed on Hand Signals” at a specific location, the following will apply:
- Stop the train before passing the location specified.
- Check the dimensional load for shifted contents.
- If safe to proceed without damage to shipment or property, move beyond the specified location on instructions from an employee(s) closely observing the shipment, not exceeding 5 MPH until the dimensional shipment clears the location specified.
- If employee(s) is unable to continue observing the shipment closely due to train makeup, topography, etc., movement may continue, not exceeding 5 MPH until the dimensional shipment clears the location specified.

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## 8. Trackside Warning Devices (TWD)

### 8(A). Description

Trackside warning devices (TWD) inspect passing trains for defects or monitor for unusual trackside conditions that could adversely affect the safe and efficient movement of trains. Examples of such devices include detection of the following conditions:

- Overheated journal bearings (hot bearing) (HBD)
- Dragging equipment (DED)
- High/Wide/Shifted load (SLD)
- High water
- Earth/Rock slide fence (Slide)

Individual subdivision special instructions identify the following:

- Detector location
- Detector type

Unless otherwise stated, protection will be hot journal and dragging equipment with bidirectional operation.

Exceptions will be shown as follows:

- Northward direction only (NWD)
- Southward direction only (SWD)
- Eastward direction only (EWD)
- Westward direction only (WWD)
- Dragging equipment only (DED)
- Shifted load only (SLD)
- Earth/Rock slide fence (Slide)
- Track Integrity Warning System (TIWS)
- Wheel Impact Load Detector (WILD)
- Detectors that protect bridges, tunnels or other structures
- Exception Reporting detector

### 8(B). Detector Radio Message

While passing over a detector, a pre-alarm message indicating "You have a defect" will be transmitted if a defect is detected. When this pre-alarm message is transmitted, immediately begin reducing speed in preparation to stop after the alarm message is transmitted, utilizing train handling methods that minimize in-train forces. Do not reduce speed below 20 MPH.

After a train has passed a detector, a radio message will be transmitted (unless the detector is defined as "Exception Reporting" in Item 5(B) of the individual division timetables). This radio transmission will provide alarm message details for defects noted during train passage such as "hot journal" detected, or non-alarm messages such as "no defects" or "integrity failure."

When the entire train has passed the detector and alarm message is transmitted, immediately stop the train utilizing train handling methods that minimize in-train forces.

The detector message is not complete until "Out" is transmitted.

**Train Approaching Detector**

Except in emergency, when approaching train is within 150 feet of a TWD, DO NOT make a radio transmission until the entire train has passed the TWD.

The train crew must have the radio set to the “in service” radio channel, for the Subdivision and location of the TWD, as shown in the timetable. The radio channel should not be changed until the entire train has passed by the TWD location and you have allowed time for the TWD to transmit any messages.

### 8(C). Detector Message and Train Crew Action

Use the following table to determine crew requirements when a detector message is received. If detector indicates more than one detector message or circumstance, comply with each train crew action shown. Radios at Exception Reporting detectors will only transmit a message when an alarm is present. Do not report a failure to transmit to the train dispatcher as is required with other types of detectors.

Note: 5(A) indicates detectors that protect bridges, tunnels or other structures. 5(B) indicates other TWD locations.

**Table No. 1 - 8(C) Non-Alarm Message**

| Type Detector | Non-Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(A) or 5(B) | When detector announces “...no defects”, or when advised by signal maintainer or train dispatcher that there are no defects. | Proceed. | None |
| 5(A) | “Integrity Failure” | Stop the train consistent with good train handling. Perform a rolling inspection not exceeding 5 MPH on both sides of the train without entering or traversing protected structure. If unable to stop before a portion of the train has entered or traversed the protected structure, perform a walking inspection of that portion that is on or has already traversed the structure and perform a rolling inspection for the remainder of the train. | Report integrity failure to train dispatcher. |
| 5(A) | "Train Too Slow" with no alarm or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | None |

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| | | | |
|---|---|---|---|
| 5(B) | "Train Too Slow" or "Integrity Failure" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service. | Proceed. | Report "Integrity Failure" to the train dispatcher unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required. |

**Table No. 2 - 8(C) Alarm Message**

| Type Detector | Alarm Message | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(B) | "You have a defect, dragging equipment near axle XXX"<br>Or<br>"You have a defect, First wide load right/left side near axle XXX"<br>Or<br>"You have a defect, Shifted load right/left side near axle XXX" | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Stop immediately after post train alarm message is transmitted, or after the entire train has passed the detector if no post train alarm message is transmitted.<br>3. Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>5. Report findings to the train dispatcher.<br>6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Detector post train alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |
| 5(A) | "You have a defect, dragging equipment near axle XXX"<br>Or<br>"You have a defect, wide load right/left side near axle XXX"<br>Or<br>"You have a defect, shifted load right/left side near axle XXX". | 1. As soon as message "...you have a defect" is transmitted, provide warning to other trains and stop immediately.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>3. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>4. Report findings to the train dispatcher.<br>5. When the defective car(s) are set out or continue in train, notify the train dispatcher and mechanical help desk. | Detector post train alarm message may identify more than one defect. Inspect train for all reported defects before proceeding. If detector alarm message does not include axle designation, inspect both sides of entire train.<br>If train is stopped on top of the detector, a post train alarm message will be transmitted summarizing defect(s) detected followed by "Out".<br>Upon moving the train, defect detection will continue for the remainder of the consist. Additional defects may be identified and transmitted with invalid axle designation. Inspect both sides of the train from the last reported defect. |

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| | | | |
|---|---|---|---|
| 5(A) | "Hot journal right/ left side axle XXX". | 1. As soon as message "You have a defect" is transmitted, provide warning to other trains and stop immediately.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by "Out". Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train.<br>3. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>4. Report findings to the train dispatcher.<br>5. When the defective car(s) are set out or continue in train, notify the train dispatcher and mechanical help desk. | Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train.<br>If train is stopped on top of the detector, a post train alarm message will be transmitted summarizing defect(s) detected followed by "Out".<br>Upon moving the train, defect detection will continue for the remainder of the consist. Additional defects may be identified and transmitted with invalid axle designation. Inspect alarm side(s) of the train from the last reported defect(s). |

| | | | |
|---|---|---|---|
| 5(B) | “Hot journal right/ left side axle XXX” | 1. As soon as message "...you have a defect" is transmitted, begin reducing train speed in preparation to stop and provide warning to other trains. Do not reduce speed below 20 MPH.<br>2. A post train alarm message will be transmitted summarizing defects detected followed by “Out”. Stop immediately after the post train alarm message is transmitted or no alarm message is transmitted and the entire train has passed through the detector.<br>3. Contact NOC detector desk to initiate review of bearing profiles that caused alarm. If at any point before or during the inspection the NOC detector desk determines the stop to be invalid and releases the train, the inspection may be concluded.<br>Otherwise:<br>4. Inspect the indicated axle(s). If no post train alarm message is transmitted inspect entire train<br>5. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>6. Report findings to the train dispatcher.<br>7. When defective car(s) are set out or continue in train notify the train dispatcher and Mechanical Help Desk. | Detector post train alarm message may identify more than one defect. Unless released by the NOC detector desk, inspect train for all reported defects before proceeding.<br>If detector alarm message does not include axle designation, inspect both sides of entire train. |

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| | | | |
|---|---|---|---|
| 5(A) or 5(B) | "Excessive Alarms" | 1. Inspect the indicated axle(s).<br>2. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.<br>3. Inspect both sides of the remainder of the train from the last reported defect.<br>4. Report findings to the train dispatcher.<br>5. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk. | Unless released by the NOC detector desk, inspect train for all reported defects before proceeding. |
| 5(A)<br>*Special condition, preparing to stop. | Post train alarm message with "Train Too Slow" is Transmitted. | If train slowed below 20 MPH while crossing the detector in preparation to stop, follow train crew actions for announced alarm message. | Report "Train Too Slow" with alarm to Train Dispatcher. |
| 5(A) or 5(B) | Post train alarm message with "Train Too Slow" is transmitted. | Inspect both sides of the entire train. | Report " Train Too Slow" with alarm to Train Dispatcher. |

**Table No. 3 - 8(C) Other Circumstances**

| Type Detector | Circumstance | Train Crew Action | Additional Instructions |
|---|---|---|---|
| 5(B) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, proceed. | Report no message or incomplete message to train dispatcher. |
| 5(A) - with recall code | No message<br>or<br>Incomplete message is transmitted. | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of entire train. | Report no message or incomplete message to train dispatcher. |
| 5(B) - without recall code | No message<br>or<br>Incomplete message is transmitted. | Proceed | Report no message or incomplete message to train dispatcher. |
| 5(B) - Exception Reporting | No Message | Proceed | Do Not Report "No Message" to Train Dispatcher |
| 5(B) - with recall code Exception Reporting | Incomplete Message is Transmitted | 1. Enter recall code and be governed by message.<br>2. If still no message or incomplete message, stop the train.<br>3. Make a walking inspection of both sides of train. | Report incomplete message to train dispatcher. |
| 5(B) - without recall code Exception Reporting | Incomplete Message is Transmitted | 1. Stop the train.<br>2. Make a walking inspection of both sides of entire train. | Report incomplete message to train dispatcher. |

Note: Detector message followed by the word "Out" indicates a complete message. Total axle count is not required for a complete message. If an alarm message is transmitted and it is not followed by the word "Out", the train will be governed by the Train Crew Action for that alarm message

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**8(D). Train Inspection**

When alarm message requires inspection, inspect the side of the train in the message. The reference to defect locations will be from HEAD END of train, and references to LEFT or RIGHT side are to engineer's left or right side in the direction of travel.

Determine the location of the indicated axle by physically counting axles from the HEAD END of the train, including locomotive axles. DO NOT depend on wheel report information for correct axle count. When alarm message requires, inspect indicated axle(s). If inspection does not reveal a defect, inspect 12 axles forward and 12 axles to the rear of the indicated axle. When this is necessary, inspect all 12 axles in each direction regardless of whether a defect is found before reaching the twelfth axle.

**Dragging Equipment/Shifted Load Inspection**

When a dragging equipment or shifted load alarm message is received, make a walking (trackside) inspection of the train until the inspection is complete or until an obstruction (bridge without a walkway or hazardous walking conditions) prevents further inspection. When obstruction prevents completion of inspection, move train at no more than 5 MPH to complete the inspection per GCOR 6.29.2. The train may proceed only after walking inspection confirms there is no dragging equipment or shifted load(s), defective car(s) are repaired or permission is received from the train dispatcher or manager to move the defective equipment.

**Overheated Equipment Inspection**

When an overheated equipment alarm is received, follow this procedure to inspect equipment:

- Crew member positioned on the ground must count axles.
- Move train at no more than 10 MPH until the indicated axle is near crew member or until inspection is complete.

When a train is stopped by a trackside warning device for hot journal, crew is to immediately contact train dispatcher who will relay the occurrence along with train identification and location to the NOC Detector Desk. The NOC Detector Desk will then contact the train and assist the crew with the process of inspection and identification of the suspect car. Train may not depart inspection location until NOC Detector Desk releases train from inspection and permission to depart is received from train dispatcher. The train crew must report the following to the NOC Detector Desk:

1. The axles were physically counted
2. A heat-indicating crayon or infrared device was used at the indicated axle,
   and
3. If inspection does not reveal a defect, that 12 axles forward and to the rear of the indicated axle have been inspected.

If a heat-indicating crayon or infrared device is not available, set out the indicated car.

After released by the NOC Detector Desk, contact the train dispatcher for permission to depart inspection location and to report train delay/detector stop information (i.e. axle readout, inspection result, car initial and number, journal number and size, set out location, crayon used, etc.). To contact the NOC Detector Desk, when using the 3 digit radio call-in code, use the 2 digits indicated in the timetable followed by a 5. If using the 1 digit radio call-in code, use 5.

**Freight Trains**

If no defect is found, train may continue, but crew members must closely observe indicated equipment for the next 25 miles or until inspection by hot bearing detector.

When a train actuates a wayside hot bearing detector before crew change location, the relieving crew will be advised of the equipment that activated the detector so that they can inspect the car and follow the above procedure if the equipment actuates a subsequent detector enroute.

When a freight train, other than a Key Train, is stopped by a trackside warning device and the indicated axle is on a loaded, placarded, non-intermodal car containing hazardous material, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

When a Key Train is stopped by a trackside warning device, apply the following:

1. When a hot journal/bearing or hot wheel condition is indicated, the car (hazmat or not) must be set out.
2. When a dragging equipment or high/wide/shifted load condition is indicated, the car (hazmat or not) must be set out. However, the indicated car may remain in the train if inspected by mechanical personnel and no defects are found or the condition is corrected.

**Passenger Trains**

If no defect is found after inspecting 12 axles forward and 12 axles to the rear of the indicated axle, inspect both sides of the entire train.

If no defect is found, train may continue, but crew must closely observe indicated equipment for the next 25 miles or until next inspection by hot bearing detector.

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**8(E). Testing Bearing Temperature**

Use a heat-indicating crayon or handheld infrared device to test bearing temperature. Test bearing temperature by stroking the heat indicating crayon on the bearing cup. A liquid smear will remain on an overheated bearing. (Determine if the bearing is hot by using a Dual Temp. 163 degree - 200 degree Fahrenheit, Mark All Thermal Melt, Millennium ordering reference no. 458304011.)

When ambient temperature is 32 degrees Fahrenheit or above, use a 200-degree Fahrenheit heat-indicating crayon to test bearing temperature.

When ambient temperature is below 32 degrees Fahrenheit, use a 163-degree Fahrenheit heat-indicating crayon to test bearing temperature.

Set out equipment with overheated bearings.

If it is safe to move equipment, set out car with an overheated bearing at a location accessible to repair personnel.

**Operating Infrared Device**

To measure a temperature, point at object and pull the trigger. Unit must be held approximately 1 – 1 ½ feet away from the journal or wheel to be measured. In order to be accurate, the target area must be at least twice as large as the spot size. Target must be free of grease or dirt. Steam, dust, smoke etc. can prevent accurate measurement by obstructing the unit's optics. Use the laser only for aiming.

CAUTION: Laser should never be pointed directly at eye or indirectly off reflective surfaces.

Point Non-Contact Thermometer (Infrared Device) at the bearing cup identified during train inspection and pull the trigger. Use laser for aiming the device. Record temperature displayed on the LCD. If temperature exceeds 180 degrees above ambient (outside) temperature, journal or wheel is considered hot and must be set out for repair. Ambient temperature may be determined by targeting any portion of the railroad car (except the wheel or journal) that has been exposed to outside air temperature. Avoid targeting the shiny surface of the wheel tread when measuring wheel for excessive temperature. Inaccurate readings will result from measuring polished or shiny surfaces. To measure wheel temperature, target the outside area of the wheel.

**Note:** When outside ambient temperature is significantly lower or higher than temperature where device is stored i.e., personal luggage or pocket, thermal shock may occur to the unit when removed from stored area. This may affect the ability of the LCD to give readout. In addition, accuracy of readout can be affected. If outside air temperature is less than 32 degrees Fahrenheit, it is recommended the device be kept in pocket until ready to target the wheel or journal to be inspected.

**8(F). Consecutive Alarm Messages**

If the same equipment is indicated by two successive hot bearing alarm messages, set out the indicated equipment. When a train actuates a wayside hot bearing detector before a crew change location, the crew being relieved will advise the relieving crew of the equipment that activated the detector. If the same equipment is indicated by the next detector with a hot bearing alarm message after departing the crew change location, set out the indicated equipment.

**8(G). Alarms Indicated on Locomotive or Caboose**

When unable to locate a defect indicated on a locomotive or caboose, notify the following:

- Connecting crew members
- Mechanical personnel
- Supervisor

Do not set out a caboose with a generator belt attached to the indicated axle unless a hot bearing, hot wheel or dragging equipment is found.

**8(H). Special Conditions**

When a hot bearing is found within 25 miles of a hot bearing or hot wheel trackside warning device, a crew member must notify the train dispatcher. The train dispatcher must notify the signal maintainer and request the TWD equipment be inspected.

When blowing or swirling snow conditions may prevent hot bearing detectors from making a proper inspection, crew members must reduce train speed to no more than 30 MPH while train is passing the detector to minimize this condition.

**8(I). High Water Detectors**

High water detectors have been placed under certain bridges and in areas where high water might occur.

A. When train is notified of high water by rotating red lights, radio message, signal indication or at a radio readout and no response is received, crew must not proceed over bridge or track until trackside examination by crew member or Engineering employee has been made to determine the following:
   - The track has not lost its normal alignment,
   - The track or bridge does not have sagging surface,
   - The shoulder ballast or ballast between the ties is not missing,
   - Water is not running between the ties, and
   - Water is not over the rail.

If inspection is made by an Engineering employee, the employee must be at the location and complete the inspection immediately before the train traverses the location. Follow up inspections must be made before each subsequent train move until the hazard is known to no longer exist. If determination cannot be made, contact train dispatcher for instructions before proceeding.

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B. Trains moving against the current of traffic must approach all locations protected by high water detectors prepared to stop unless:
- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- The shoulder ballast or ballast between the ties is not missing,
- Water is not running between the ties, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding. Note: When moving against the current of traffic and the location is protected by rotating red light or radio response, be governed by Item A above.

**8(J). Slide Detectors**

Slide detectors have been placed in certain areas where earth/rock slides might occur.

When a rock slide is indicated by rotating red light or radio message, trains must proceed at Restricted Speed AND be prepared to stop short of any obstruction through the entire slide detector area.

When train is stopped or moving at Restricted Speed because of signal indication governing movement through a slide detector, train must ALSO be prepared to stop short of any obstruction through the slide detector area.

Train dispatcher must be promptly notified if slide conditions are observed.

At locations equipped with Radio Readout type detectors, if no response is received, trains must proceed at Restricted Speed until track at this location is known to be clear of any obstruction. Train dispatcher must be promptly notified if slide conditions are observed.

**8(K). Warm Journal Detectors**

Warm Journal Detectors identify potential failure conditions in advance of actual failures using information provided only to the NOC Detector Desk, where the information is evaluated and necessary crew action is determined. When crew action is necessary, the NOC Detector Desk will coordinate through the chief dispatcher to have the train dispatcher issue required train crew action via radio. Train crews are then to contact the NOC Detector Desk and be governed by any additional instructions.

When notified by the dispatcher or NOC Detector Desk to take action relative to a "warm" bearing/journal, the train (including Key Trains or any train with hazardous material shipments) may be moved without additional restrictions to a convenient location to inspect or set out as directed.

Directed train crew action may include:

1. Perform a Set and Release of the Air Brakes:

   Perform a set and release of the air brakes (minimum of 10 psi brake pipe reduction) in an attempt to release any sticking brakes at the first convenient location consistent with good train handling. A "running release" may be performed if engineer determines conditions allow per ABTH Rule 103.3C. When a running set and release is necessary the NOC Detector Desk may contact the train crew directly with instructions.

2. Stop and Inspect a Specified Car:

   Stop and inspect specified car and be governed by instructions provided in each case by the NOC Detector Desk.

3. Set Out a Specified Car:

   Set out specified car at location as directed.

Instructions for potential failure conditions identified by the NOC Detector Desk do not supersede instructions for overheated/hot journals or defective equipment identified by other Trackside Warning Devices or visual inspections.

**8(L). Track Integrity Warning System (TIWS)**

The following TIWS instructions are in effect, unless otherwise specified in subdivision specific Timetable Special Instructions:

The Track Integrity Warning System checks the rail for continuity and alerts the Train Dispatcher to possible track occupancies or defects (e.g. broken rail) in non-signaled territory.

Subdivisions where TIWS is in effect are divided into a series of "zones" displayed by the Train Dispatcher's control system and identified in the field by Mile Post signs, Siding Switch signs, or a combination of these signs. Mile post signs identifying boundaries of a "Zone" may be displayed in tenths of a mile. Example: MP 926.3.

Track authority limits may be designated by MP signs representing "Zone" limits.

Alerts will be generated to the train dispatcher when occupancy is detected within a zone(s) not corresponding in proper sequence with an authority issued on that segment of track. Such alerts are referred to as "Track Integrity Down" (TID) and will be communicated by the Train Dispatcher to trains authorized within the zone(s).

Verbal instructions for "TID" may be provided to trains closely approaching the TIWS zone when an alert is received.

A new authority including "TID" information will be issued to trains not closely approaching an alerting zone. "Track Integrity Down" will be abbreviated as "TID". Following are examples of a "TID" communicated by Track Authority:

"TID MP 1011.3 to MP 1015.8" or "TID WSS Baker"

Trains receiving notification of "TID" must move at Restricted Speed within the designated zone limits and/or over a designated switch.

**8(M). Wheel Impact Load Detector (WILD)**

A Wheel Impact Load Detector (WILD) monitors passing trains for wheel defects which are categorized as Level 1 or Level 2. When a train passes over the detector, WILD installations equipped with field radio broadcast capability will transmit a radio message only when a defect has been identified, followed by the word "out". WILD installations with radio broadcast capability will be identified in the timetable.

**Level 1**

When a Level 1 defect is identified by a WILD with radio broadcast capability, a radio message will be transmitted indicating "you have (number of defects) defects", "Train (lead locomotive number)". After a brief pause, the detector will then broadcast details regarding right or left side, axle count from head end of the train and car number for the defect identified. Required train crew actions for Level 1 defects:

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- Record the information transmitted by the detector.
- Stop train and notify the train dispatcher of the delay due to required WILD Level 1 inspection.
- Inspect the axles identified for defects.
- If no defect is found, inspect 12 axles forward and 12 axles backward from the axles identified.
- Notify the dispatcher of the conditions found.
- Train may not depart from the inspection location until released by the detector desk and permission to depart is received from the train dispatcher.

If a defect message is incomplete or cannot be understood, enter the recall code. If message recall is unsuccessful, notify the train dispatcher and proceed with no restriction.

**Level 2**
Level 2 condition information is monitored by the detector desk and is used for predictive maintenance purposes only. The WILD will not transmit Level 2 detail by radio.

**9. Amtrak Instructions**

BNSF dispatchers must have General Track Bulletins (GTB) issued at least one hour before trains departure. If the Amtrak train crew does not have the GTBs 45 minutes before trains departure they must contact the dispatcher immediately. If unable to contact the dispatcher for GTBs 35 minutes before train departure, train crew must contact the BNSF Passenger Operations Team at 1-800-871-0902.

Dispatcher must be notified immediately when train does not maintain maximum authorized track speed.

Dispatcher must be notified immediately when crews experience rough track conditions stating limits and severity. This same information must be documented on the conductor delay report

No trash may be discarded on BNSF property.

**Station and Reporting Times**
Station work must be done in an expedient manner to avoid exceeding station dwell times. If station work is anticipated to exceed scheduled dwell time by more than 5 minutes, sufficient advance notice must be given to the dispatcher to eliminate or minimize train delays.

**Amtrak Trains Reporting Clear/Releasing Track Warrants**
Engineer and conductor are jointly responsible, through job safety briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant. When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Communication will use the following format:
  Crew member will state: "(Name), locomotive initial, number, (direction), reports clear of (mile post/location) (Provide switch briefing when required). Over."

  Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct. Over"?

  Crew member will state: "Job safety briefing between conductor (name) and engineer (name) confirm, that is correct. Over".

**Equipment**
Unless otherwise provided, equipment that cannot be safely operated at maximum speed must be set out at first available location unless train can arrive at final destination in less time than would be required to make the set out.

- Maximum speed for freight locomotives in Amtrak service is 70 MPH.
- Double stretch is required after pick up or set out of cars or locomotives.
- Required hand tools and supplies must be available on locomotive.
- Required switch keys must be in possession of Engineer and Conductor.
- Amtrak may not exchange or discharge passengers between trains except at stations.
- Amtrak may not exchange supplies between trains except at stations unless authorized by train dispatcher.
- Amtrak train garbage/refuse to be off loaded must be loaded into approved containers and only at stations that have assigned Amtrak employees or caretakers.
- Amtrak toilets must be discharged into appropriate containers. Dumping of toilets from Amtrak trains on BNSF right of way is prohibited.

**Head End Attendance**
The head end of all occupied passenger trains must not be left unattended for any reason while occupying Main Track or siding. At crew change locations the engineer's job safety briefing will take place in the locomotive cab or controlling compartment of cab control car. If the outbound crew is not on spot at a crew change location on arrival, the inbound engineer will remain on the head end until the outbound engineer arrives.

**Head End Power (HEP) Requirements**

- Departure from the originating station with the HEP cables short looped is prohibited.
- In the event of HEP failure, crew members must determine if the train may be handled safely and must make every effort to advance the train to the next siding or scheduled stop before repairs are made.
- All HEP cables must be secured with approved tie-downs.
- Air hoses and HEP cables must be secured no less than 4 inches above the top of the rail.

**BNSF Crews Operating Amtrak Trains**
When a BNSF crew operates an Amtrak train, a freight locomotive must be used. Amtrak personnel must handle all 480-volt AC power and set up Amtrak locomotives in the trail position. BNSF crews are prohibited from handling, adjusting or performing work between or under cars when Head End Power (HEP) 480 volt AC is energized. A freight locomotive will not be necessary when BNSF engineer is accompanied by an Amtrak qualified engineer or qualified Amtrak supervisor.

**BNSF Mechanical Assistance**
When mechanical problems develop the train dispatcher must be notified immediately as described in System Special Instructions item #45 and BNSF NOC Mechanical Desk notified if assistance is required. The delay for mechanical problems must be documented properly on the delay report.

**Conductor Delay Reporting**
The Amtrak conductor delay reporting method has been replaced with an electronic method. The electronic delay report (EDR) is essential to both Amtrak and BNSF. If the train operates on a route requiring EDR, the delay information must be reported no more than two hours after the train arrives its destination or at a crew change location.

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The reporting must be professional, brief, specific, and worded clearly and concisely. Each individual reason for delay must be separated from other delays. The reporting must include, in order of occurrence, the following:

- Any delay due to the inability to maintain maximum authorized passenger train speed.
- Reasons for delay over dwell times identifying specific cause of delay (passengers, baggage, late bus connections, mechanical issues, etc.).
- Delays associated with field equipment detectors. These delays require that specific information be given, even if no defect is found. Information as to the location of the defect, Car/Locomotive initial and number, axle and journal if applicable, and reason for inspection and defect, if any found.
- Amtrak instructions regarding authorization to hold or delay train, including reason.
- Delays caused by operating with one engineer.
- Delays caused by late General Track Bulletins.
- If the conductor manually changes electronic time, an explanation of the reason for change must be included within the EDR.

Reporting is required on all trips, including special trains, deadhead moves and trains terminated short of destination.

**Signal Awareness Forms**

Passenger train conductors and crew members are exempt from special instructions Item 43 unless they are in the controlling unit or the cab room of the controlling cab car and there is more than one crew member in the controlling unit or cab room of the controlling cab.

**10. Storage of Cars Within Restricted Limits or Yard Limits In Non-Signaled Territory**

Within restricted limits or yard limits in non-signaled territory, the Main Track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on Main Track in such territory, they must be protected by track warrant or track bulletin. This does not modify requirements of GCOR 6.13 or 6.14.

**11. Shunting the Track**

**Commodities Insulating Track**

Employees should be alert for insulating commodities such as clay, chips, oil, etc. on top of rails, or leaves covering the rails. This condition could possibly insulate the track and cause loss of train shunt. Such conditions should be promptly reported to the train dispatcher. When conditions are reported, trains must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**Movements Consisting of Less Than 12 Axles**

In CTC, manual interlocking, or ABS territory, a crew member must inform the train dispatcher/control operator, of train/engine movement consisting of less than 12 axles so that protection against loss of shunt can be provided. Train, engine and other such movements consisting of less than 12 axles must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

**12. Switch Control/Monitoring Systems**

**12(A). Turnouts Equipped with Two Switch Machines (Movable Point Frogs/Swing Nose Frogs/Derails)**

Locations where turnouts are equipped with two switch machines will be identified under individual subdivision special instructions. When dual control switches equipped with two switch machines are operated by hand, the switch machine which operates the switch points and the switch machine which operates the movable point frog, swing nose frog, or derail must both be placed in hand operation.

GCOR/MWOR 9.13.1 applies at all locations where turnouts are equipped with two switch machines (movable point frogs/swing nose frogs/derails).

**12(B). Remote Control Power Switch (RCPS)**

Remote Control Power Switch (RCPS) allows the train dispatcher to request that the switch be lined and monitor switch position in non-signaled territory. The location of RCPS will be designated in the timetable. RCPS limits are designated by signs and the limits must not be occupied unless authorized. Track authority will authorize use of RCPS limits at each end of authority in the following manner:

"Switch - Yes" indicates that the authority includes the RCPS limits designated by signs in the field.
"Switch - No" indicates that the authority does not include RCPS limits and movement must stop short of sign designating RCPS limits.

If the train dispatcher cannot line the remote control power switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the train dispatcher must instruct the employee to operate the switch by hand. Movement may then proceed to that switch. Before passing over the switch, movement must stop and the employee must operate the switch by hand.

To operate a remote control power switch by hand:

- Obtain permission from the train dispatcher.
- Unlock the switch lock.
- Place the selector lever in the HAND position.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.
- Do not return the selector lever to the POWER position until at least one unit or car has passed over the switch.

The following information and instructions apply when the RCPS system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status to indeterminate/out of correspondence.

When an alert is received, the train dispatcher must promptly determine the location of the train with authority over the alerting switch and do the following:

- If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching (less than 7 miles) the alerting switch, the train dispatcher must instruct the crew to stop their train, consistent with good train handling, if possible, before traversing switch.
- If the train is not closely approaching the alerting switch, but it is more than seven miles from alerting switch, the train dispatcher is required to issue a new authority to the affected train that voids the authority over the alerting switch and ends at the alerting switch.

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**RCPS Position Indicator**

| | |
|---|---|
| Green | Switch lined and locked for Main Track movement |
| Yellow | Switch lined and locked for movement to or from Main Track |
| Dark (not illuminated) | Switch not locked, or selector lever in "hand" position. Contact train dispatcher and obtain permission to hand operate the dual control switch. |

RCPS position indicator lights do not authorize movements to occupy the limits between the RCPS signs governing the switch.

**12(C). Switch Point Monitoring System (SPMS)**

Switch Point Monitoring System (SPMS) is a program that will alert the dispatcher that a Main Track switch may not be properly lined for an approaching train in non-signaled territory. SPMS locations will be designated in the timetable.

The following information and instructions apply when the system is in service:

The train dispatcher will receive an alert if a train has authority over any equipped switch that changes status from the normal position. Alerts will occur if a switch is reversed or its position becomes unknown (indeterminate).

Exception: An alert will not occur for trains operating with a proceed track authority (box 2) for switches located in the "from" and "to" locations of their authority.

When an alert is received, the train dispatcher must do the following:

- Promptly determine the location of the train with authority over the alerting switch. If the train has passed the alerting switch, perform a track release to cancel the alert.
- If the train is closely approaching the alerting switch, the train dispatcher may notify the crew verbally using the appropriate verbiage in the dialog box presented.
- If the train is not closely approaching the alerting switch, the train dispatcher is required to issue a new track authority to the affected train that restricts authority to the alerting switch.

  Note: Work between (box 4) authority for trains must end at any indeterminate switch. Authority may be issued beyond the indeterminate switch only after employee has verified that the switch is in the normal position by performing an on-ground inspection.

The dispatcher is prohibited from issuing two work between (box 4) track authorities to the same train that make the limits of authority end-to-end.

For example, do not issue track authority #1 with work between (box 4) from Anna to Bess and track authority #2 with work between (box 4) from Bess to Cloy.

Information received from the Switch Point Monitoring System must not be used to change the position of a Main Track switch that is protected by a track authority under the Protect Open Switch rules (GCOR 8.3, MWOR 8.3, and TDOCOM 42.19).

When a train crew is notified to be prepared to stop at an alerting switch, (either verbally or with a track authority), the train must not proceed over the switch until a crew member inspects the switch from the ground. The position of the switch must be reported to the train dispatcher as soon as possible after the inspection.

Maintenance of Way (MW) employees must have permission before operating an equipped Main Track switch. When Form B authority is in effect, the foreman or employee(s) working under the Form B must notify the dispatcher when opening any equipped Main Track switch(es).

When a MW employee receives a track authority with "Be prepared to stop at (location) until known to be in the normal position, the dispatcher must not indicate the switch to be "normal" unless the reporting employee has traversed the switch in Main Track to Main Track movement with on-track equipment and is physically at the switch.

The dispatcher must not "normal" an alerting switch until it has been inspected by a field employee.

**12(D). Independently Controlled Switches (ICS)**

Independently Controlled Switches are dual control switches of a crossover which, under certain conditions prescribed by the rules, may be operated independently. At locations identified in the timetable as having independently controlled switches, Maintenance of Way employees may request control operator permission to operate one end of a crossover for maintenance or testing purposes only.

**12(E). Protect Open Switch (POS)**

In non-signaled territory, track warrant authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

In ABS territory, track warrant work between authority for trains must end at any open Main Track switch. Authority may be issued beyond the open switch after the train has stopped at the switch. Immediately contact the train dispatcher for additional authority when the train is stopped at the switch.

(Note: A train stopped short of the switch for topographical reasons, i.e., road crossings, grade considerations, etc., may be considered as stopped at the switch for application of this process).

**13. In Effect on BNSF Railway**

- General Code of Operating Rules, Eighth Edition, in effect April 1, 2020
- Maintenance of Way Operating Rules, in effect January 1, 2018.
- Air Brake and Train Handling Rules, in effect February 1, 2018.
- Train Dispatcher's and Control Operator's Manual, in effect November 1, 2020.
- TY&E Safety Rules, in effect August 4, 2021.
- Maintenance of Way Safety Rules, in effect August 4, 2021.
- Employee Safety Rules, in effect August 4, 2021.
- Mechanical Safety Rules, in effect August 4, 2021.
- United States Hazardous Material Instructions for Rail in effect June 1, 2021.
- 2020 Emergency Response Guidebook.
- BNSF Chicago Passenger Operations Manual No. 5, in effect May 14, 2021.
- Canadian Rail Operating Rules, in effect October 14, 2015. (For use in Canada only.)
- Remote Control Operating Instructions, in effect December 14, 2016.
- PTC Interoperability Instructions, in effect September 1, 2019 (For use by BNSF TYE crews operating on PTC interoperable routes.)
- BNSF Seattle Passenger Operations Manual No. 2, in effect April 1, 2019.

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**In Effect While Operating on Foreign Railroads:**
The following System Special Instruction items must be complied with by BNSF crews operating over a foreign railroad:

- Item 6. Work Order: Instructions for Reporting Work
- Item 27. Cars Set Out Bad Order
- Item 28. Grade Crossing Accidents
- Item 35. Switching and Handling Business Cars
- Item 43. Signal Awareness/Position of Switch Form
- Item 45. Network Operations Center Notification Requirements
- Item 49. Responsibilities and Certification
- Item 50. Rail Security Sensitive Material (RSSM) Instructions Chain of Custody Documentation for Rail Sensitive Material

**Detour Train Documents**

- When a foreign railroad detours trains on BNSF, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- When BNSF detours trains on a foreign railroad, the train list and hazardous material information must be left on the lead locomotive for use by the relieving train crew.
- The train list and hazardous material information must remain on the lead locomotive at crew change points.
- Detoured train documentation is not interchanged to the handling road's computer system.

**14. General Code of Operating Rules, BNSF Amendments and Supplements**

**GCOR 1.10**—is changed to read:

**GCOR 1.10 Games, Reading, or Other Media**

Employees on duty must not:

- Play games
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices)
  or
- Read magazines, newspapers, or other literature not related to their duties when:
  - On a moving train or locomotive unless deadheading in the cab of a non-controlling locomotive
  - Any crew member is performing safety related activities
  or
  - It would delay or interfere with required duties.

When use is not permitted, magazines, newspapers or other literature not related to duties must be stowed out of sight.

**GCOR 1.17 Hours of Service, Supplemental Instruction**

When reporting hours of service, time spent waiting for deadhead transportation must not be counted when determining time on-duty for hours of service purposes when relieved of all duties.

**GCOR 1.37 Open Top Loads**—is changed to read:

Flat cars, open top cars, and open TOFC/COFCs with loads which protrude beyond the car ends or if shifted, would protrude beyond the car ends must not be placed in trains next to the following if train length and makeup permit:

- Occupied outfit car
- Passenger car
- Engine
- Caboose
- Shipment of automotive vehicles or machinery that is not fully enclosed

This restriction does not apply to cars equipped with chains or cables securing the load to the car.

**GCOR 1.43 Stopped in Tunnels**—Under A. Engine or Train Stopped in Tunnel:

That part reading:

4. Apply hand brakes to prevent movement in case the air brakes leak off.

Is changed to read:

4. Secure required number of cars to prevent movement in case the air brakes leak off.

**GCOR 1.46 Duties of Yardmasters**—the following is added:

At the end of each shift, the yardmaster must make a transfer, filling in all the required information, including:

- All grade crossing warning devices out of service
- Any undelivered Track Bulletin Restrictions
- Any tracks, switches, or other infrastructure out of service
- Any other conditions or issues which may affect the safe and efficient management of the yard.

If the office has more than one shift, the yardmaster being relieved will remain until the relieving yardmaster understands, accepts, and acknowledges the transfer.

The transfer must be documented in Yardmaster Transfer in YDS. If TSS is not available, the transfer must be documented in writing and maintained for 30 days.

**GCOR 1.47 Duties of Crew Members**—Item C, All Crew Members' Responsibilities, the following is added to Item 2:

Crew members must not use binoculars or similar devices to determine the position, aspect, or indication displayed by a fixed signal.

**GCOR 1.48 Time, Supplemental Information**

Dial 8-998-8463, 8-WWV-TIME, or 8-435-6000 to obtain coordinated universal time signal.

**GCOR 2.14.1 Verbally Transmitting and Repeating Mandatory Directives**

**Supplemental Instruction**

Apply the following when verbally transmitting and repeating a mandatory directive identified by numbers separated with a hyphen:

- State the first number, then state or spell each digit separately for that number.
- State the hyphen as "dash".
- State the second number, then state or spell each digit separately for that number.

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5."

Employees repeating the initial transmission of the mandatory directive must repeat the number in this same format.

**Supplemental Information**

When authorities are repeated precisely as they are transmitted, the Control Operator / Train Dispatcher is able to follow the words when checking the repeat for accuracy. When authorities are not repeated properly, it is more difficult for the Control Operator / Train Dispatcher to follow the repeat process.

Employees are expected to repeat authority precisely as it is recorded on the authority form. All words which are on the form or shown in the examples must be repeated in the proper order and without adding or deleting words.

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Employees will be given three chances to repeat an authority properly. If unable to repeat properly after three attempts, the Control Operator / Train Dispatcher will stop the authority and the employee will not be given additional authority until a supervisor has been contacted.

**GCOR 2.14.2**—The following rule is added:

**GCOR 2.14.2 Before Reporting Clear of Authority Limits**

Before a field employee reports clear or releases a portion of authority limits, and the Train Dispatcher/Control Operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the Train Dispatcher/Control Operator.
- The Train Dispatcher/Control Operator will have the required form or computer screen displayed for data entry and confirmation.
- The Train Dispatcher/Control Operator and employee will carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct.

**GCOR 2.21**—is changed to read:

**GCOR 2.21 Electronic Devices**

This rule outlines the requirements for use of electronic devices. As used in this rule, the following definitions apply:

**Electronic Device**—means an electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety-related task.

**Railroad Operating Employee**—means an individual who is:

- Engaged in or connected with the movement of a train including a hostler,
- A train employee providing commuter or intercity rail passenger transportation,
  or
- Subject to hours of service governing train service employees.

The use of any electronic device is prohibited if that use would interfere with an employee's performance of safety-related duties.

**A. Personal or Railroad-Supplied Electronic Devices**

Personal or railroad-supplied electronic devices may be used as necessary:

- To respond to an emergency situation involving the operation of the railroad
- To respond to an emergency encountered while on-duty
- As a communication device in the event of radio malfunction
- To refer to a railroad rule, special instruction, timetable or other directive using the digital storage and display function while inside the controlling cab of a locomotive, train or on-track equipment after there has been a job safety briefing and all crew members agree that it is safe to do so.

Other than railroad operating employees may use electronic devices in the body of a business car or passenger train when it will not interfere with an employee's performance of safety-related duties.

Except as otherwise authorized, the use of any audio or video recording device to record communications by or between employees is strictly prohibited without the prior knowledge and express consent of all parties to the communication.

**B. Personal Electronic Devices**

Except when deadheading in other than a controlling locomotive, railroad operating employees on-duty (including supervisors) must have each electronic device turned off and stowed out of sight with any earpiece removed from the ear when:

- On moving rolling equipment or on track equipment unless device is being used to reference a railroad rule, special instruction, timetable or other directive,
- Any member of the crew is on the ground performing safety-related duties,
  or
- Any employee is assisting in preparation of the train, engine(s) or on-track equipment.

A railroad operating employee may use an electronic device when:

- Rolling and on track equipment is stopped,
- A job safety briefing is conducted with all crew members to confirm that it will not interfere with any safety-related or required duty,
- No member of crew will foul any track.

When device is not in use it must be off and stowed out of sight.

A personal stand-alone camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or standard, provided that:

- A job safety briefing is conducted among all crew members and any other individuals in the controlling cab of moving equipment,
- It is turned off immediately after the photograph has been made;
- It is not used by an employee at the controls of moving equipment.

A personal stand-alone calculator, digital watch whose only purpose is as a timepiece and medical devices that are consistent with the railroad's standards may be used as necessary in the performance of duties.

**C. Railroad-Supplied Electronic Devices**

After a job safety briefing including all members of the crew determines railroad-supplied devices can be used safely, railroad operating employees may use such devices to send or receive work related information with:

- Railroad supervisors
- Railroad customers
- Railroad dispatchers
- Railroad customer service employees
  or
- Other railroad employees as necessary in the performance of their duties.

Railroad operating employees must not use a railroad-supplied electronic device for purposes other than which it was intended or while:

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- Operating the controls of a moving locomotive unless device is being used to reference a railroad rule, special instruction, timetable or other directive.
- On the ground within 4 feet of any track.
- On the ground and engaged in an active switching operation.
- Riding rolling equipment during a switching operation.
- At the controls of the locomotive and any other employee is assisting in the preparation of the train, engine(s), or on-track equipment, including testing of railroad equipment or brakes.
- Inside the controlling cab of a locomotive, train or on-track equipment, unless there has been a job safety briefing and all crew members agree that it is safe to do so.
- Verbally obtaining or releasing mandatory directives when railroad radio communication is available.

A railroad-supplied electronic device may be used to take a photograph pertaining to authorized business purposes that include a potential safety hazard, violation of a rail safety law, regulation, order or standard; or conditions that prevent a train crew from accessing and performing work at a customer facility provided that:

- Train is stopped.
- A Job Safety Briefing is conducted including all members to confirm that it is safe to do so.
- If the crew member taking the photograph is on the ground they cannot be within 4 feet of any track.

**GCOR 4.3 Timetable Characters, Supplemental Instruction**

A.....Automatic Interlocking
B.....General orders, notices, and circulars
C.....Radio communication
g .....Gate, normal position against conflicting route
G.....Gate, normal position against this subdivision
J.....Junction
M .....Manual interlocking
P.....Telephone
R.....Restricted Limits
S.....Railroad crossing protected by permanent Stop sign
T .....Turning facility
U.....Railroad crossing not protected by signals or gates
X.....Crossover
X(2).....Multiple crossovers
Y.....Yard Limits

**GCOR 5.3.3 Signal Disappearance**—is changed to read:

If a person disappears who is giving the signal to back or shove a train, engine, or car, or the light being used disappears, employees must stop movement.

**GCOR 5.4.2 Display of Yellow Flag**—"Less than Two Miles Ahead of Restricted Area" under "A. Restriction is in Effect" is changed to read:

**Less than Two Miles Ahead of Restricted Area.** When the restricted area is close to a terminal, junction, or another area or if restriction is on a siding, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, track warrant, or general order.

**GCOR 5.4.6 Display of Flags Within Current of Traffic**—this rule is canceled.

**GCOR 5.4.8 Flag Location**—the first paragraph is changed to read:

Flags will be displayed on all Main Tracks and sidings leading to the track affected.

**GCOR 5.5 Permanent Speed Signs, Supplemental Instruction**

Reduced speed limits may be designated by Advance Warning sign (diagonally upward), Reduce Speed sign (rectangle) and Resume Speed sign (vertical).

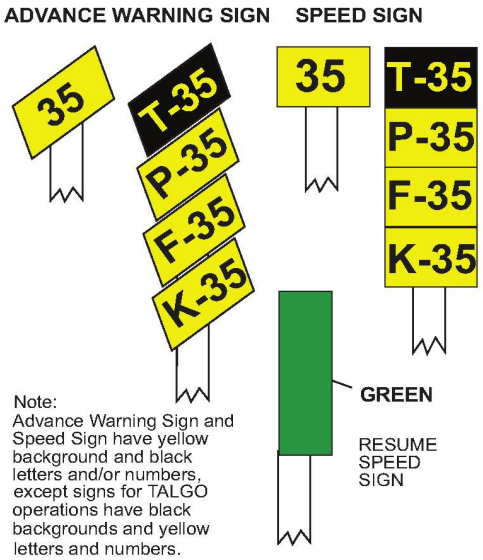
The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction. Signs reading "K-END" indicate the end of Key Train municipal area limits. Resume speed signs are not displayed at the end of Key Train municipal area limits.

Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision.

Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.

These signs, as illustrated, apply to train and engine movements as follows:




Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures preceded by the letter K apply to Key Trains.

Figures not preceded by a letter apply to all trains.

**GCOR 5.8.1 Ringing Engine Bell**—the following is added as a fourth bullet:

- When whistle signal (7) is required.

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**GCOR 5.8.2 Sounding Whistle**—the Indication for Sound (8) is changed to read:

| Sound | | Indication |
|---|---|---|
| (8) | — o | Regardless of any whistle prohibitions:<br>Approaching men or equipment or other individuals on or near the track.<br>After sounding initial warning for men or equipment or other individuals, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment or other individuals.<br>Whistle warning is not required:<br>• When there is an adjacent track and men or equipment or other individuals are beyond the farthest rail of the adjacent track.<br>• For members of the same crew associated with movement of their engine unless necessary to warn or alert a crew member<br>Do not sound whistle in designated mechanical servicing and repair facilities, unless for an emergency or when approaching roadway workers. |

**GCOR 5.8.4 Whistle Quiet Zone**—the following is added:

An employee may sound the train horn to provide warning to crews on other trains in an emergency situation, vehicle operators, pedestrians, trespassers or animals if, in the employee's sole judgment, such action is appropriate to prevent imminent injury, death, or property damage. Train crews are not restricted from sounding the horn when:

- There is an emergency situation.
- A wayside horn system (WHS) is malfunctioning.
- Active grade crossing warning devices malfunction.
- Grade crossing warning systems are out of service.
- Supplemental or alternative safety measures are not compliant.
- Needed for purposes other than highway-rail crossing safety, for example, to announce the approach of a train to roadway workers.

All other whistle and bell requirements remain in effect.

**GCOR 5.9.1 Dimming Headlight**—is changed as follows:

1. is changed to read:
   1. At stations and yards where switching is being done. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).
3. is changed to read:
   3. When stopped on the main track waiting for an approaching train. However, when stopped in block system limits, turn the headlight off at the radio request of the crew of an approaching train until the head end of the train passes. After head end of approaching train passes, turn headlight on bright while the train is passing.
4. is changed to read:
   4. When approaching and passing the head end of a train at night. Headlight may temporarily be turned on bright as needed (i.e., while operating at restricted speed).

**GCOR 5.11 Engine Identifying Number**—the following exception is added:

Exception:

- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by train symbol.

**GCOR 5.11 Engine Identifying Number, Supplemental Instruction**

Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines:

SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines:

CSXT, CSX and CSX Transportation.

Where PTC is in effect, passenger trains operated from a cab control car on the leading end of the movement will be identified by the cab control car initials and number, adding the direction when required.

Metrolink engines or cab control cars with no initials stenciled on the side will be identified as SCAX units.

**GCOR 5.13 Blue Signal Protection of Workmen**

**Item B. How to Provide Protection**—is changed as follows:

On a Main Track is changed to read:

**On a Main Track.** A blue signal must be displayed at each end of the rolling equipment and, if the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Section titled **On Other than a Main Track** is changed as follows:

The following is added after item 1:

Use the following sequence when applying blue signal protection:

a. Line and lock the switch
b. Display blue signal at or near the switch and;
c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at or near the switch
c. Remove the lock from the switch and replace the hook or hasp, if equipped.

Item 2 is changed to read:

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
   a. Positioned at least 150 feet from the rolling equipment to be protected.
   or
   b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.

   Use the following sequence when applying blue signal protection:
   a. Lock the derail in the derailing position
   b. Display blue signal at the derail and;
   c. If the rolling equipment to be protected includes one or more locomotives, a blue signal must be displayed on the controlling locomotive(s).

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Use the following sequence when removing blue signal protection:

a. Remove blue signal from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Remove the blue signal at the derail
c. Remove the effective locking device from the derail and ensure derail is in the proper position.

The following is added to the end of item 3:

After the switch operator informs the employee in charge of workmen that switches have been lined against movement onto track and devices controlling the switch have been secured, display required blue signals on controlling locomotive(s).

Use the following sequence when removing blue signal protection:

a. Remove blue signals from locomotive(s), if applied (remove any blue signal inside the cab before removing the blue signal visible from the outside on the engineer's side of the locomotive)
b. Employee in charge to notify the switch operator when it is safe to remove switch-locking devices.

**Item C. Blue Signal Readily Visible to Engineer**—Item 3 is changed to read:

3. The engine must not be moved. The controls must not be changed unless directed by individuals who placed the blue signal protection.

**GCOR 6.3 Main Track Authorization**—the paragraph titled Joint Authority is deleted, and the following is added:

**Overlapping Limits**
When a train receives track and time, track warrant or track permit authority joint with an employee the train must not occupy the overlapping limits until permission is received to enter the overlapping limits from the employees listed on the authority.

**GCOR 6.5 Shoving Movements**—is changed to read:

Shoving cars or engines ahead of an engine must be performed by an employee visually observing the intended route while communicating instructions with the employee controlling the engine to ensure safe operation.

A GCOR qualified employee must protect the shove movement by:

- Visually observing the leading end of the movement to determine that switches and derails are properly lined, and the route is clear for the intended movement.
- Communicating instructions including a distance that specifies where the movement must be prepared to stop. (e.g., stop for misaligned switch, controlling speed for conditions, etc.)

Employees are encouraged to communicate additional information related to the shoving movement (e.g., close clearance conditions, stop signals, authority limits, etc.)

When communicating distances:

- Use 50 feet as a standard for one car length
- Provide instructions that allow for control of the movement (e.g., controlling speed for conditions, etc.)
- Use a number of car lengths that is no greater than the portion of track that has been determined to be clear, and represents where movement must stop for improperly lined switches/derails, on-track equipment, etc.

When communicating with a radio:

- The employee observing the leading end of the movement must inform the employee at the controls of the engine who is protecting the movement and how the protection will be provided (e.g., Conductor Smith on the ground, riding equipment, riding in vehicle, camera, etc.), and specify a distance.
- Direction will be described in relation to the front of the controlling locomotive (F stencil). Use the following terms:
  - "Ahead" to move forward
  - "Backup" to move backward
  - "Stop" to stop the movement

  Do not use terms such as "Good For", "Shove", Bring 'em this way", "That'll do", etc., in place of "Ahead", "Backup" or "Stop".

The following are required of the employee controlling the engine:

- Before beginning a shove movement, must know who is protecting the movement and how protection will be provided
- Before beginning a shove movement, must repeat by radio the instructions received from the employee providing protection.
- When moving, must verbally acknowledge radio instructions by repeating the distance communicated when more than four cars.
- Movement must be stopped within half of the distance specified unless additional instructions are received.

Employees involved in the shove movement must not engage in any activity unrelated to the shove. (e.g., unrelated communication, operating a switch not part of the intended route of the shove, etc.).

An employee is not required to be in position to observe the leading end of the movement when:

- Relieved by local instructions for tracks equipped with shove lights/ cameras.
- Relieved by special instructions specific to tracks involved.
- During GCOR 6.6 Back Up Movements.
- During pullout moves within an activated Remote Control Zone (RCZ).
  or
- Moving cars only the distance necessary (not exceeding 5 car lengths) to operate an uncoupling lever for the purpose of kicking cars. It must first be verified that the track is clear and switches and derails are lined for the movement.

When cars or engines are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.

When engaged in snow plow operations:

- One common authority may be used by both Maintenance of Way employees and the train crew when all employees are on the equipment.
- Maximum timetable speed applies unless a higher speed is authorized by the employee in charge.
- Employees are relieved from providing visual protection for snow plow being shoved.

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**GCOR 6.5.1 Remote Control Movements**—is changed to read:

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading engine in the direction of movement. The remote control operator protecting the shove movement must be the controlling operator and in position to visually observe the direction the equipment moves before initiating the movement.

Exception: After conducting a job briefing with the employee who will be protecting the shove, the controlling operator is not required to transfer control when:

- Stretching a track to ensure couplings are made.
- Separating equipment to make coupler adjustments.
- Shove is protected by a non-equipped individual, such as a utility person

When requesting pin slack, the employee uncoupling the equipment is not required to be the controlling operator

**Pullback/Stop Protection (PSP)**
When Remote Control Zone is equipped with pull back/ stop protection (PSP), the operator must verify that PSP is operational. Pull back and stop protection must again be verified if PSP is overridden.

**Relief of Providing Protection**
The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when a qualified employee who is a part of the RCO crew has performed the following:

1. Verify switches/derails are known to be properly lined.
2. Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.
3. Once steps 1 and 2 are completed and all crew members have been briefed, the zone may be activated.

Note: These steps must be repeated each time the remote control zone is activated.

**GCOR 6.6 Back Up Movements**—is changed to read:

After obtaining permission from the train dispatcher, a train may back up on any Main Track or on any track where CTC is in effect under the following conditions:

1. The train dispatcher must verify the following within the same or overlapping limits:
   a. Another authority is not in effect unless conflicting movements are protected.
   b. A track bulletin Form B is not in effect.
   c. A Main Track is not removed from service by a track bulletin.
   d. Permission to leave a switch in the reverse position has not been granted.
2. The crew ensures movement will not:
   a. Exceed the limit of the train's authority.
   b. Exceed the train's length.
   c. Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
   d. Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before requesting or making a back up move, a job safety briefing between all members of the crew must be conducted that confirms:

- Train is intact, verified either visually or by determining that brake pipe continuity exists using end of train device or distributed power telemetry.
- Distance to be shoved. (Note: Train must not move outside of authority limits.)
- Distance from the end of the train to the end of authority limits is sufficient to accomplish the planned back up movement (E.g. 30 cars from the end of the rear car to next controlled signal or 30 cars from the end of the rear car to MP 30, where track warrant authority ends, etc.).
- Location of nearest affected road crossing in direction of movement.
- Movement will not be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade or track bulletin Form B limits.

Before permission is granted, a job safety briefing between a crew member and the train dispatcher or control operator must determine what track authority is needed to accomplish the planned movement. If additional track authority is necessary to make the 6.6 movement, a crew member must request additional authority.

When movement is made under these conditions, Restricted Speed does not apply.

**GCOR 6.7 Remote Control Zone, A. Entering Remote Control Zone**—is changed as follows:

The 2nd paragraph is changed to read:

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated.

The 3rd paragraph is deleted in its entirety.

**GCOR 6.11 Mandatory Directive**—that part reading:

Indicate "VOID" on mandatory directive form when:

Is changed to read:

Where paper copies are used, indicate "VOID" on mandatory directive form when:

**GCOR 6.20 Equipment Left on Main Track**—A. Portion of Train Left on Main Track

That part reading:

- Set a sufficient number of hand brakes to keep the detached portion from moving.

Is changed to read:

- Secure a sufficient number of cars to keep the detached portion from moving.

**GCOR 6.21.2 Water Above Rail**—is changed as follows:

The 2nd paragraph is changed to read:

Operate engines at 5 MPH or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, the NOC Mechanical Help Desk must authorize the movement.

**GCOR 6.21.3 Track Obstruction / Unusual Conditions**—is changed to read:

When a train is advised in the words, "Between (location) and (location) be governed by Rule 6.21.3", within the specified limits trains must:

- Not exceed 20 MPH HER,
  and
- Be prepared to stop for slides, rocks, washouts, debris or obstructions on the track.

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Train crews are reminded to regulate speed where visibility is limited (ex. curvature of track, lighting, weather, etc.) and must report to the train dispatcher conditions encountered, or if none are encountered, within the limits.

**GCOR 6.21.4**—The following rule is added:

**GCOR 6.21.4 Activation of Shifted Load or Dragging Equipment Detector**

When a train or engine actuates a shifted load or dragging equipment detector, and an adjacent Main Track or controlled siding may be obstructed, immediately:

- Warn other trains by radio, stating the exact location and status of the train and repeat as necessary.
- Place lighted fusees on adjacent Main Tracks and controlled sidings.
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

Warning to other movements is no longer necessary when:

- It is known adjacent Main Tracks and controlled sidings are not obstructed.
  or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent tracks.

**Train on Adjacent Track**
A train on an adjacent track that receives radio notification must pass the location specified at Restricted Speed and be prepared to stop for obstructions on the track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

**GCOR 6.22 Maintaining Control of Train or Engine**—A new second paragraph is added:

When following a train or engine on a Main Track or controlled siding, crew members must ensure they stop at least 400 feet behind the train or engine, if length of train permits.

**GCOR 6.23 Emergency Stop, Severe Slack Action, or Actuation of Shifted Load or Dragging Equipment Detector**—the part titled "**Inspection of Cars and Units**" is changed to read:

Visual inspection must ensure no derailment or damage has occurred to cars, units, equipment or track to the end of the train. If physical characteristics such as a bridge with no walkway prevent complete inspection, the train may be moved the distance necessary not exceeding 5 MPH to complete the inspection. Stop movement immediately if excessive power is required to start or keep the train moving and discontinue further inspection until a safe alternative to complete inspection is identified by either a job safety briefing or coordination through the train dispatcher.

Exception—The following trains (excluding key trains) are relieved of visual inspection required by emergency brake application if no severe slack action occurred while stopping and brake pipe pressure is restored as indicated by the caboose gauge, end-of train telemetry device (ETD) or distributed power telemetry:

- Solid loaded bulk commodity train,
- Train consisting entirely of doublestack and/or articulated spine car equipment,
- Any train where emergency application occurs above 20 MPH, or
- Any train that is 5000 tons or less.

Train types in the exception are relieved of further visual inspection after a defect is corrected, such as recoupling an air hose, and brake pipe pressure is restored as indicated by the caboose gauge, end-of-train telemetry device (ETD) or distributed power telemetry.

**GCOR 6.26 Use of Multiple Main Tracks, Supplemental Instruction**

Unless otherwise indicated in the individual subdivision special instructions, when using Main Tracks in westward or southward timetable direction, they will be numbered consecutively from right to left beginning from Main 1. When using in eastward or northward timetable direction, they will be numbered from left to right beginning with Main 1.

**GCOR 6.29.1 Inspecting Passing Trains**—"Ground Inspections" is changed to read:

**Conducting Inspections**

When a train is stopped and is met or passed by another train, a member of the crew must inspect the passing train. All crew members must remain alert and attentive while the inspection is being conducted.

If inspecting from the ground:

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.

**GCOR 6.32.2 Crossing Warning Devices (Highway/ Pathway - Rail Grade Crossings), Supplemental Instruction**

In the application of this rule, a crossing having a broken gate(s) is to be considered as having working devices when the balance of the automatic warning devices are seen to be working. Movement may proceed over the crossing at 15 MPH without stopping.

**GCOR 7.6 Securing Cars or Engines**—is changed to read:

Do not depend on air brakes to hold a train, engine or cars in place when left unattended. Engineer and conductor are jointly responsible, through a job briefing, to ensure equipment left unattended is properly secured and a sufficient number of cars have hand brakes applied to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, secure enough cars by applying hand brakes to prevent any remaining cars from moving.

**GCOR 7.7.1 Gravity Switch Moves**—is changed to read:

A gravity switch move is permitted only at locations where specifically indicated by individual subdivision special instructions or when approved by a supervisor due to circumstances such as mechanical failure, etc.

Before performing a gravity switch move, crew members must fully understand the intended movement. They must verify that the track is sufficiently clear and that switches and hand brakes are in working order.

When performing a gravity switch move:

- Not more than five cars may be handled at one time.
- Sufficient hand brakes must be manned by crew members to insure that the movement can be controlled and stopped.
- Using the hand brake on cars with shiftable loads must be avoided.
- Cars must not be allowed to couple to other equipment.

**GCOR 7.12 Movement Into Spur Tracks**—is deleted entirely.

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**GCOR 8.9.1 Testing Spring Switch**—That part reading:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop.
   - Stop and Proceed.
   or
   - Restricted Proceed.

Is changed to read:

Before a train or engine makes a facing point movement over a spring switch, the switch must be tested when any of the following conditions exist:

1. A block signal governing movement over the switch indicates:
   - Stop
   - Stop and Proceed
   - Restricting
   or
   - Restricted Proceed

**GCOR 8.19 Automatic Switches**—the following paragraph is added:

In non-signaled territory, when movement continues beyond an automatic switch signal displaying a Stop indication, train must move at Restricted Speed for two miles or until leading wheels pass the next automatic switch signal or opposing distant signal.

**GCOR 9.8 Next Governing Signal**—is changed to read:

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

This rule does not apply when a rule or previous signal indication requires movement at restricted speed..

**GCOR 9.9 Train Delayed Within a Block**—is changed as follows:

B. CTC or Manual Interlocking Limits is changed to read:

B. CTC or Manual Interlocking Limits

Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

When operating in PTC Full Enforcement Mode and the PTC Display indicates the next governing signal will allow the train to proceed, or increase speed, the train may proceed complying with the signal indication governing the next block.

Exception

Conflicting Movement. When the control operator has stopped a conflicting movement, he may then authorize another train to proceed in the same limits, advising both crews of movement to be made. If the stopped movement is later permitted to proceed, that train must move at restricted speed until its leading wheels have passed the next governing signal or the end of the block system.

**GCOR 9.11 Movement from Signal Requiring Restricted Speed**—is changed to read:

When a train passes a signal requiring movement at Restricted Speed, the train must move at Restricted Speed until its leading wheels have passed the next governing signal. When a next governing signal does not exist, trains operating on the Main Track must move at Restricted Speed for two miles or until leading wheels pass the opposing distant signal.

**GCOR 9.15.2 Clearing Track Permits**—the following 4th bullet is added:

- Position of hand operated Main Track switches.

**GCOR 10.1.1**—The following rule is added:

**GCOR 10.1.1 Leaving the Main Track**

Unless authorized by track and time, a crew member must notify the control operator when the train clears the Main Track unless a crew member is in position to prevent a following movement from passing.

**GCOR 10.3, Track and Time**—the instructions inside the box are changed to read:

| |
|---|
| Track and time does not authorize trains to occupy the Main Track within automatic interlocking limits. |

**GCOR 10.3 Track and Time, Supplemental Instruction**

**Requesting Track and Time**

The employee requesting track and time will state name, occupation, location and train or other identification. The employee will copy the authority granted on the form provided for that purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with "That is correct." The train must not move until the engineer understands the track and time granted.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing track and time, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator "That is correct," the employee must not occupy the track. The employee requesting track and time must contact the control operator as soon as possible and confirm with the control operator that the track and time was not received.

**GCOR 13.1.4 Cab Signals Cut In and Out**—is changed as follows:

The following sentence is deleted from the last paragraph:

If the device was not tested previously, the engineer must make a departure test prior to entering ACS territory.

The following is added after the last paragraph:

Note: Partial cut out requirements do not apply to engines not so equipped.

**GCOR 13.3.1 Cab Signal and Block Signal Do Not Agree**—the exception is deleted:

Exception—When the train dispatcher's instructions require the train to proceed at Restricted Speed, the train must comply with the train dispatcher's instructions regardless of cab signal indication.

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**GCOR 13.3.3 Movement with an Inoperative Cab Signal Device**—is changed to read:

When it is determined the cab signal device is inoperative, the train may proceed according to block signal indications. However, the train must not exceed 40 MPH until it reaches a point where a crew member can report the defect to the train dispatcher.

The train dispatcher will establish an absolute block in advance of the train.

**GCOR 14.3 Operating With Track Warrants**—is changed as follows:

The following is added to Items 1 and 2:

The location of the specific point must be indicated on the track warrant form.

The following last paragraph is added:

**After Arrival Authority**

When track warrant requires "After Arrival" of another train, the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the meeting point.

**GCOR 14.7 Reporting Clear of Limits**—the following paragraph is deleted:

When a hand operated switch is used to clear the Main Track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

**GCOR 14.7 Reporting Clear of Limits, Supplemental Instruction**

**Reporting Clear/Releasing Track Warrants**

Engineer and conductor are jointly responsible, through job briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant.

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Engineer and conductor will communicate with the train dispatcher.
- Communication will use the following format:

Conductor will state: "Conductor (Name), locomotive initial, number, (direction), regarding track warrant (Number), reports clear of (mile post/location) (Provide switch briefing when required) - Over."

Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, "Is that correct? - Over."

Engineer will state: "Engineer (name), (location) is correct. - Over."

**GCOR 14.9 Copying Track Warrants**

That part reading:

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

Is changed to read:

Where paper copies are used, the conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it.

**Item A. Transmitting Track Warrants**—is changed to read:

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.

3. The employee will repeat the preprinted and written information transmitted by the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating:

   "(total number) boxes marked:

   (Individual box numbers)."

4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following:

   "Track Warrant (number) to (engine ID) (direction) is OK at (time)(dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher,

   or

   If the track warrant includes after arrival, the dispatcher will state the following:

   "Track Warrant (number), to (engine ID) (direction) with after arrival of (engine ID) (direction) at (location) is OK at (time) (dispatcher initials)"

   The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat the "After Arrival" information, OK time and dispatcher's initials to the train dispatcher.

   Note: The summary information in Items 1, 2, 3 and the after arrival information in Item 4 will be exempt from pronouncing and spelling numbers as indicated in GCOR 2.14.1, Verbally Transmitting and Repeating Mandatory Directives.

**Item B. In Effect**—the last sentence is changed to read:

Rules qualified employees may relay track warrants.

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**GCOR 14.10 Track Warrant in Effect**—is changed to read:

A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits. Before a train reports clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, a crew member must restore hand operated Main Track switches to normal position unless relieved by track warrant.

Employees reporting clear or releasing a portion of track warrant limits must state:

- Their name or other identification
- Track warrant number being released
- Limits being released

In non-signaled territory or double track ABS territory (outside of restricted limits or yard limits), a crew member will job brief with the train dispatcher about the position of main track switches and those switches operated are locked within the limits being released, referencing completion of the Position of Switch form or stating no entries required.

**Time Limit Shown**

If the track warrant shows a time limit, the train must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

**GCOR 14.11 Changing Track Warrants**—the last paragraph is changed to read:

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued showing, "Void Authority _____" and the number of the track warrant being changed.

**GCOR 14.13 Mechanical Transmission of Track Warrants, Supplemental Instruction**

**Mechanical Issuance**

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom,
- Computer generated line on the bottom listing the items checked is missing,
  or
- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

**GCOR 15.1 Track Bulletins, Supplemental Instruction**

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

**GCOR 15.2 Protection by Track Bulletin Form B**—the following are added:

**C. Stop Column**

When "STOP" is written in the Stop column, the train must not enter the limits unless instructed by the employee in charge. A red flag may be displayed at the beginning of the limits. A train within the limits at the time the track bulletin Form B takes effect, must not make further movement until instructed by the employee in charge.

**D. Entering Within Limits**

Before entering the track governed by the track bulletin Form B from any location other than the beginning of the Form B limits, obtain permission from the employee in charge.

**GCOR 15.2 Protection by Track Bulletin Form B**—that part reading:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. The employee in charge will use the following format to establish communication with the train:

Is changed to read:

A crew member must attempt to contact the employee in charge to avoid delay, giving the train's location and track being used. When possible, attempt must be made at least 2 miles in advance of the limits. The employee in charge will use the following format to establish communication with the train:

**GCOR 15.9 Mechanical Transmission of Track Bulletins, Supplemental Instruction**

Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

**GCOR 15.13 Voiding Track Bulletins**

**A. Voiding Track Bulletins Verbally**

That part reading:

Employee must repeat the information to the train dispatcher. If correct, the word "VOID" will be entered to indicate that portion is no longer in effect.

Is changed to read:

Employee must repeat the information to the train dispatcher. Where paper copies are used, if correct the word "VOID" will be entered to indicate that portion is no longer in effect.

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**GCOR 15.13.1**—The following rule is added:

**GCOR 15.13.1 Voiding General Track Bulletins or Restrictions**

A bulletin or restriction or an entire GTB may be voided by the train dispatcher communicating the following:

1. "Restriction (number) ____ reading ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" in the margin to the left of the restriction made void.

2. "General track bulletin No. ____ is void."

   An employee must repeat this information to the train dispatcher. Where paper copies are used, if correct the employee must write "VOID" across the first page of the general track bulletin being voided.

**GCOR 18.2 Taking Charge of PTC Equipped Trains—**that part reading**:**

2. The PTC system on the controlling locomotive is initialized.

Is changed to read:

2. The PTC system on the controlling locomotive is initialized with the correct GTB.

**GCOR 18.3 Broken or Missing Seals**—that part reading:

Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the designated authority.

Is changed to read:

Unless authorized, do not break the protective seals on PTC devices. Report broken or missing PTC seals to the PTC Desk.

**GCOR 18.4 PTC Cut Out**—is changed to read:

The PTC system may only be cut out or disabled when authorized by rule or when proper authorization is received.

When permitted by the Train Dispatcher, PTC Desk or other supervisor, PTC may be cut out for, but not limited to, the following reasons:

- It becomes defective, or
- It prohibits train movement that should be allowed.

When instructed to cut out PTC or to proceed without PTC functioning as intended, notify the train dispatcher of the reason and who authorized.

**GCOR 18.9 Use of Restricted Mode**—is changed to read:

Restricted Mode must be turned on before performing work events such as:

- Switching
- Pickups, setouts, etc.
- Loading/unloading of work trains under direction of MW Employee in Charge

After all work events have been completed, turn off Restricted Mode.

**GCOR 18.12**—The following rule is added:

**GCOR 18.12 Movements with Inoperative PTC System**—is changed entirely to read:

**GCOR 18.12 Movements with Inoperative PTC System**

When the PTC system on the controlling locomotive fails to initialize or becomes inoperative, except where PTC is suspended by mandatory directive, notify the train dispatcher and PTC desk.

Maximum Speeds

The following maximum speeds will apply to movements with an inoperative PTC system.

In non-signaled territory, or when operating against the current of traffic in Rule 9.14 (Movement with the Current of Traffic) territory:

| | |
|---|---|
| Trains transporting one or more loaded cars containing TIH/PIH | 30 MPH |
| All other trains | 40 MPH |

In signaled territory:

| | |
|---|---|
| Freight trains transporting one or more loaded containing TIH/PIH | 40 MPH |
| Freight trains not transporting loaded cars containing TIH/PIH | 49 MPH |
| Locomotives without cars | 49 MPH |
| Passenger trains | 59 MPH |

**GCOR 18.13**—The following rule is added:

**GCOR 18.13 Movements Without PTC**

Freight movements engaged in:

- Yard service (including switching, transfer, local, etc.),
- Assembly or disassembly of trains,
- Hostling locomotives, or
- Remote control operations,

may operate on PTC territory without PTC if the movement:

- Originates or terminates in a yard,
- Does not travel in excess of 20 miles on PTC territory in one direction,
- Does not exceed restricted speed while on PTC territory, and
- Train dispatcher is notified.

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**GCOR Abbreviations**—the following abbreviations are added:

| | |
|---|---|
| AS | Absolute Signal |
| CNT | Connection |
| EBCS | Eastbound Controlled Signal |
| EE | East End |
| EXO | East Crossover |
| ICS | Independently Controlled Switch |
| NA | Not Applicable |
| NBCS | Northbound Controlled Signal |
| NE | North End |
| NXO | North Crossover |
| POS | Protect Open Switch |
| PTC | Positive Train Control |
| RCPS | Remote Control Power Switch |
| RESTRN | Restriction |
| RL | Restricted Limits |
| RP | Release Point |
| SBCS | Southbound Controlled Signal |
| SE | South End |
| SPMS | Switch Point Monitoring System |
| SS | Station Sign |
| SW-N | Switch No |
| SW-Y | Switch Yes |
| SXO | South Crossover |
| TFND | Track Flags Not Displayed |
| TID | Track Integrity Down |
| TIWS | Track Integrity Warning System |
| WBCS | Westbound Controlled Signal |
| WE | West End |
| WXO | West Crossover |

**GCOR Glossary**—the following glossary terms are added:

**General Track Bulletin**
A notice containing track bulletin restrictions and other conditions affecting train movement.

**Hard Cut Out (PTC)**
A state of the PTC system when PTC cut out switches are placed in the cut out position.

**PTC Full Enforcement Mode**
The status of PTC when all the following conditions exist:

- The system state is Active,
- a colored track line (other than gray) exists beneath the leading end of the movement,
- maximum speed is displayed, and
- next target or "None" is displayed.

When these conditions are met, the PTC system is actively providing warning and enforcement.

**Soft Cut Out (PTC)**
A state of the PTC system resulting from selection of the cut out key on the PTC display.

**15. Currently Not Used**

**16. Currently Not Used**

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**17. PTC - Supplemental Information**

**Locomotive Consist**

At locations where locomotive consists are assembled for trains that will operate on PTC territory, a PTC-equipped, lead-qualified locomotive must be placed in lead position. At non-PTC originating locations, departure of a train that will operate on PTC territory without a PTC-equipped, lead-qualified locomotive in lead position, must be approved by the train dispatcher.

**PTC Readiness Verifications**

At locations where locomotive consists are assembled, conduct an initialization verification and departure test on the lead unit as soon as possible. The following steps can be conducted by any trained personnel with a PTC log-in. A GTB is not required to complete this process.

1. On the PTC display, select MENU 1, then select INIT.
2. When text box displays, "THIS WILL ERASE EXISTING TRAIN DATA DO YOU WANT TO CONTINUE?" select YES.
3. On the RAILROAD SELECTION screen, highlight BNSF and select ADD, then SUBMIT.
4. The display should indicate "PLEASE WAIT FOR SYSTEM CONFIGURATION". The TMC is now establishing a connection to the office.
5. If prompted to download or install new software, follow current software deployment instructions as outlined in track bulletin.
6. When the "PRESS KEY TO ACCEPT TERMS OR CANCEL" message is displayed, the office server has established a connection. Select CANCEL. If the Accept Terms screen does not display, there is a PTC issue preventing connection to the server. Contact PTC Desk for further instructions.
7. From Menu 1, select DEPART test and follow the prompts to complete the departure test. When conducting the test, ensure the automatic brake valve is placed in Suppression, and remains in Suppression until the test is complete. Placing the automatic brake valve into any position other than suppression may nullify functions required for efficient PTC system operation.

**Restricted Speed**

PTC does not enforce all requirements of GCOR 6.27 - Restricted Speed. When required to operate at Restricted Speed, PTC enforces a speed of 20 MPH.

**Unusual Conditions**

Any train experiencing a PTC Enforced Braking Event which results in an occupied locomotive stopping in a tunnel or other enclosed structure, in addition to current instructions, immediately place Enforcement Cut Out Switches located in the nose of the locomotive to the Cut Out position. If operating conditions allow, recover brake pipe and exit the location.

Notify Train Dispatcher and contact the PTC Desk immediately and be governed by their instructions.

**PTC Desk**

The PTC Desk may be contacted by radio, or telephone 817-593-5900. When necessary to troubleshoot PTC issues, contact should be established by a crew member located on the lead locomotive (when practical).

**18. Electronic Delivery of Information**

PTC initialized trains may receive the following electronically delivered directives:

- Form A track bulletins
- Form B track bulletins
- Crossing warning notifications
- Track warrants

Train crews are responsible for complying with electronically delivered directives when:

- Notified by the prompt on the PTC display,
- Contacted by the train dispatcher confirming receipt of the directive, or
- Directives(s) remain viewable on the PTC display.

When crew members responsible for complying with electronically delivered directives are not in the controlling locomotive (such as train service employees in passenger service), the engineer will communicate to those crew members the contents of new directives as soon as practical after the prompt is received and prior to reaching the directive location.

Upon receipt of a PTC directive prompt, crew members utilizing iGTB (general track bulletins delivered via the iGTB application on the iPad) must select the refresh button. If, after selecting the refresh button the information is not viewable on iGTB, information from the PTC display must be copied on the prescribed form, verbally confirmed with the train dispatcher as outlined in SSI Item 18. (B), and the engineer must have a written copy.

**Inoperative PTC**

| Directive | Train Crew Action |
|---|---|
| Form A Track Bulletin or Crossing Warning | If PTC status changes to a condition where electronic view of directives is not available on the PTC display, be governed as follows:<br>• When directives delivered to PTC have been copied and confirmed with the train dispatcher or are viewable in iGTB, GCOR 18.12 applies. or<br>• When directives delivered to PTC have not been copied and confirmed with the train dispatcher, or are not viewable in iGTB, stop train consistent with good train handling and contact the train dispatcher to verify and determine if additional directives are needed. Once verified, crew members may proceed per GCOR 18.12. |
| Track Warrant | Stop train consistent with good train handling and contact the train dispatcher. |

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**18. (A) PTC Territory**

Trains operating in a PTC active state may receive electronically delivered directives without verbal interaction with the dispatcher. (Note: this process does not apply to Form B Track Bulletins). Train crews must review as soon as practical and follow prompts for acknowledgment.

Directives that are delivered electronically via PTC will immediately be displayed onboard and protected by PTC on trains operating in a PTC active state. When any directive is voided in the system by the train dispatcher trains operating with PTC active will no longer display an associated target and the train crew may consider any directive, other than a Form B, no longer in effect. All Track Bulletin Form B restrictions remain in effect until they expire or are made void by the train dispatcher.

**18. (B) Non-PTC Territory**

Where taking charge of a PTC-equipped train, the PTC system on the controlling locomotive must be initialized. The train dispatcher will initiate communication that a directive has been delivered. (Note: this verbal confirmation process does not apply to Form B Track Bulletins). Because PTC is in a disengaged state, directives will not be enforced by PTC. When any directive is voided in the system by the train dispatcher, the directive will remain in effect until verbally notified by the train dispatcher.

**Authority**

Train crews will receive "delivery prompts" for track warrants. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will state the track warrant number, and if included, box 5 (after arrival). Train crew will confirm receipt of the track warrant to the train dispatcher by stating the track warrant number, limits (including track) and total number of boxes marked including which specific boxes are marked. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive track warrant 725-45 with a box 5 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive track warrant 725-45 from Anna to Bess on main track with two boxes marked, 2 and 5."*

If the train crew cannot confirm the directive is on the PTC display or if the information displayed is incorrect, the directive will be issued using the verbal transmission / repetition process. Dispatcher will notify the PTC desk.

**Restrictions**

Train crews may not always receive "delivery prompts" for restrictions. It may be necessary to select "view bulletins" on the PTC display to locate the restriction being confirmed. Because PTC is in a disengaged state, these will not be enforced by PTC.

The train dispatcher will contact the train crew and state the restriction number or milepost(s) that restriction applies to. The train crew will confirm receipt of the restriction to the train dispatcher by stating the restriction number (where applicable), milepost(s), speed (where applicable) and track on which the directive applies. The train dispatcher will confirm information repeated is correct.

Example:
Train dispatcher states: *"BNSF 5179 East, did you receive form A track bulletin 1355 on your PTC display?"*

Train crew responds: *"BNSF 5179 East, yes we did receive form A track bulletin 1355 from MP 181.0 to MP 181.5, 10 MPH on main track "*.

**19. Currently Not Used**

**20. Currently Not Used**

**21. Currently Not Used**

**22. Remote Control Operations**

- Employees assigned to a remote control crew are governed by the BNSF Remote Control Operating Instructions and must have a current copy accessible while on-duty.
- Only certified operators or students who have been trained in remote control operations may operate an Operator Control Unit of a Remote Control Locomotive.
- Division Timetable Special Instructions will designate limits of Remote Control Zones (RCZ). RCZ signs may also be posted at zone access locations.
- The Remote Control Operator in control of a Remote Control Locomotive must be notified of any track removed from service or working limits established for the protection of another craft.
- When a remote control operations system radio broadcasts “Operator Down”, movements on adjacent tracks must move prepared to stop in half the range of vision until the safety of all members of the remote control crew is confirmed.

**23. Automatic Cab Signals**

Cab signal equipment must be cut out except on suburban equipment on the Chicago Subdivision.

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**24. Switch Tender Instructions**

The train dispatcher and switch tender are required to have a job safety briefing before a switch tender acts on instructions from the train dispatcher. Following a shift change, another briefing is required between the train dispatcher and switch tender, which will include discussion of pending instructions and determination if the instructions are still correct.

When communicating concerning approaching train movements, use engine initials and number and direction. Do not use only train symbols or blanket terms such as "westbound or eastbound trains."

The dispatcher will issue specific instructions to the switch tender. The switch tender must repeat the instructions to the train dispatcher and receive confirmation of being correct, before acting on the instructions.

For example: After confirming with the train dispatcher that BNSF 1234 West will be the next train to line from Main Track 1 to Main Track 2 at Robinson Spur, the switch tender is then to call the BNSF 1234 West and verify the train has authority from Main Track 1 to Main Track 2 at Robinson Spur. After verification has been received from the BNSF 1234 West, and after the switch tender has visually identified the BNSF 1234 West, the switch tender will line the route for the movement. After the movement is clear of the switch, the switch must be lined and locked in the normal position.

When necessary for the train dispatcher to change routing instructions to the switch tender after authority has been granted to a train, it is the responsibility of the dispatcher to communicate directly with the switch tender. Another authority over the switch that the tender is in charge of cannot be issued until the dispatcher has informed the switch tender of the change.

When a switch tender is at a remote location, away from a depot and/or base station radio, the switch tender must check with dispatcher when arriving at such location to confirm they can clearly communicate. If the switch tender becomes aware of any radio communication problems, the train dispatcher must be notified. The chief dispatcher will make particular arrangements when communication problems are evident.

While in charge of a switch, the switch tender must not leave the switch unattended unless it is lined and locked for normal movement.

The train dispatcher's transfer must include switch tender locations and pending instructions from the train dispatcher to the switch tender.

**25. FRA Random Drug Testing**

TY&E employees selected for FRA Random Drug Testing must show the start time of the Random Drug Test (RDT) in the remarks column of their timeslip. Start time of RDT begins when a supervisor notifies the employee that they are selected for RDT. A stop time on RDT is necessary only if different from their off-duty time.

**26. Verification of Rules Examination**

Employees required to pass rules examination must have a current rules examination card when issued, or engineer's certificate in their possession while on-duty.

**27. Cars Set Out Bad Order**

When practical, a car set out between terminals due to mechanical defect should be left where it can be accessed by truck for making repairs. If the car set out is a military shipment or Rail Sensitive Security Material (RSSM), the Resource Operation Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3. The PBX/MRAS radio system may be used for this communication.

**28. Grade Crossing Accidents**

The following information is designed to serve as post grade crossing accident guidelines. It is designed to provide the utmost in safety for you and your crew.

After the accident has occurred and the train is stopped:

A. Ensure the safety of crew members, accident victims, and the public.
B. Meet the requirements of GCOR 6.23.
C. Contact the dispatcher or any other available radio contact and advise:
    1. Exact location,
    and
    2. What emergency services are needed. Be sure to include alternate routes for the emergency vehicles if your train is blocking road crossings.
D. Assess the damage to the vehicle and train to determine if there is any danger to your crew or the public.
E. Assign a crew member to monitor a radio to provide further information for emergency assistance.
F. If it is safe, render assistance to accident victims. It is important not to move the victim unless a life threatening situation exists.
G. Turn "off" the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless necessary to permit emergency vehicles to access the accident scene through a blocked crossing, etc.
H. Only give information to:
    1. The investigating officer,
    or
    2. Authorized company managers.
        a. Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can recall.
        b. Record the badge number and name of the investigating police officer at the scene. Witness with the officer that the headlight is on, and that the whistle and bell on lead unit are in proper working order. Also, note that the crossing warning devices are functioning.
I. Assign a crew member to verify the accuracy of the train list. Save all train lists, track warrants, track condition messages, and other pertinent documents for the proper BNSF managers.
J. Ascertain that no part of your train is derailed and that it will be safe to proceed once released by the investigating officer.
K. Personal counseling will be available to any crew member who might experience post-accident trauma.

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**29. Trains Performing Track Maintenance Work**

The conductor is in charge of and will be responsible for all work train movements. The safety of the overall train operation is the responsibility of the entire train crew. During work activities the engineer may accept train movement instructions only from a designated individual identified in the job safety briefing before commencing work. The individual designated to provide train movement instructions to the engineer will be a member of the train crew except during work activities requiring precision train movement, such as rail recovery. An individual of the work group may be designated to communicate directly with the engineer for precision train movements under the supervision of the conductor.

The engineer will respond to all Stop signals.

When Maintenance of Way, Signal, Structures, Mechanical or other work groups are involved with the activities of the work train (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.), a coordinator from such group must be designated. The train crew will communicate with the designated coordinator concerning all train movements and work activities.

An initial job safety briefing will be conducted before commencing work and additional job safety briefings must be held at intervals not to exceed four hours until the end of the tour of duty. In addition, when there is a change in assignment or a significant delay in activities has occurred, a job safety briefing must be conducted before commencing work. Employees who subsequently work in the vicinity of a work train after such job safety briefings have been held, must not commence work until they have received a job safety briefing from the designated coordinator regardless of authority received to occupy the area. The conductor is responsible to ensure that no work activity begins until the required job safety briefings are complete.

Job safety briefings must include applicable operating rules, safety rules, special instructions and any other work-specific information. The designated coordinator is responsible for communicating impending train movements to the work groups under his control.

All employees assigned to a work train and/or its activities are responsible to be on the lookout for train or track car movements at all times. Lookouts will be utilized when necessary and all movements must be fully protected.

In signaled territory, when at the intended work location and before performing work associated with track maintenance (i.e. weed spraying, dumping ballast, loading/unloading track materials, etc.) on a Main Track or Siding the conductor must:

- Notify the train dispatcher of the milepost limits where the work will be performed.
- Notify the train dispatcher when the work has been completed.

**30. Track Condition Messages**

Track condition messages (TCM) may be issued by train dispatchers to cover restrictions that affect movements on tracks governed by GCOR/MWOR 6.28, or any restriction not normally covered by a track bulletin restriction.

Restrictions shown on a track condition message may be cancelled verbally by the train dispatcher.

Authority can be given by a train dispatcher or supervisor to enter a track shown to be out of service on a track condition message.

When a track warrant indicates a track condition or train message is to be received, conductor is responsible for securing those messages necessary for movement of their train. Track condition messages must be retained and complied with on all trips made during the tour of duty on which they were received.

**31. Securing Track Warrants/General Track Bulletins**

When reporting for duty at initial terminal, a crew member will secure track warrants, track bulletins, and track condition messages or general track bulletin, unless otherwise instructed. A relief crew member must contact the dispatcher before departing to determine if additional documents are required, and advise if all crew members are present and ready to depart.

If the identifying unit is not shown correctly on the address line, contact the train dispatcher and correct the address line before departing the initial station.

**32. Currently Not Used**

**33. Flood, Excessive Wind, Tornado, Cold Weather and Earthquake Instructions**

**Observations by Train Crews Associated with Flood/High Water**

Instructions for observations, or when otherwise notified by the train dispatcher, of flood/high water with or without a flash flood warning:

| Conditions Observed Associated with Flooding/High Water | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Water over rail | Immediately stop train, consistent with good train handling. Report condition to Dispr. After stopping for these conditions, do not move the train until further instructions are received from maintenance personnel. | | |
| Surface irregularity | | | |
| Washout | | | |
| Side scour | | | |
| Erosion at piers, footing, dump planks and head walls of bridges | | | |
| Debris against bridge with active water flow | Do not exceed 40 MPH until entire train has passed the condition. Report to Dispr. | | |
| Turbulent water | Do not exceed 30 MPH until entire train has passed the condition. Report to Dispr. | | |

Instructions for observations of flood from a stream or river near BNSF track, with or without flash flood warning, or when otherwise notified by the train dispatcher of flood/high water:

| Water Observed Reaching Bottom of Ballast Line (Figure 1 Below) | | | |
|---|---|---|---|
| **Condition** | **Passenger Trains** | **Key Trains** | **All Other Trains** |
| Standing Water | Report to Dispr | | |
| Moving Water | Do not exceed 30 MPH until entire train has passed the condition/warning limits and report to Dispr. | | |
| **Water Observed Reaching Top of Ties (Figure 1 Below)** | | | |
| Standing Water | Do not exceed 50 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 30 MPH until entire train has passed the condition/ warning limits. Report to Dispr. | Do not exceed 40 MPH until entire train has passed the condition/ warning limits. Report to Dispr. |
| Moving Water | Do not exceed 20 MPH and be prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits. Report to Dispr. | | |

**Water Between Top of Tie & Bottom of Ballast**

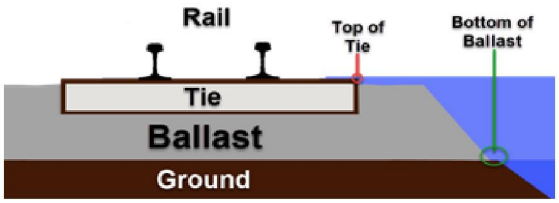



*Figure 1 - Top of Tie and Bottom of Ballast*

**Flash Flood Warning**

Weather information received by BNSF from Accu-Weather Enterprise Solutions, Inc., is categorized as a "Warning" when it describes conditions that require immediate action by the train dispatcher to notify train crews of imminent danger. These warnings are immediately distributed to the relevant train dispatchers. When Accu-Weather issues a "Flash Flood Warning", the dispatching center will immediately advise all involved trains of the specific conditions.

Flash Flood Critical Areas are designated in the Division Timetable. Division Engineers will identify "critical" areas by subdivision, segmented by mile post locations based upon their susceptibility to flooding or their history of being prone to washouts or side-scour wash.

Instructions for movement of trains when notified of flash flood warning:

| Flash Flood Warning | Passenger Trains | Key Trains | All Other Trains |
|---|---|---|---|
| **Critical Area** | Do not exceed 20 MPH through critical area limits and be prepared to stop for slides, washouts, debris, track surface irregularities or obstructions on the track. | | |
| **Non-Critical Area** | Do not exceed 50 MPH through limits identified in the warning. | Do not exceed 30 MPH through limits identified in the warning. | Do not exceed 40 MPH through limits identified in the warning. |
| *Additional restrictions, including a requirement to stop the train, may apply if flooding/high water conditions are observed by the train crew.* | | | |

The Flash Flood Warning restrictions will remain in effect until the track has been inspected and employee performing the inspection advises the train dispatcher that the applicable restriction is canceled. If the Flash Flood Warning limits include locations identified as being "critical," these areas will be inspected on a priority basis as directed by the dispatching center.

Train dispatchers will continue to issue Flash Flood Warnings until the track has been inspected and the Flash Flood Warning expires or is canceled by Accu-Weather.

**Local Observations by Maintenance Personnel**

When local maintenance personnel become aware of current conditions that might produce flash flooding that could result in damage to BNSF track or structures, they will:

- Immediately place the speed restriction described above on the affected route.
- Inspect the track for washouts, side-scour wash, surface irregularities and/or water over the rail.
- Carefully inspect bridge foundations and drainage structures, with careful attention to bridges with mud sills, for erosion behind dump planks and head walls, erosion around piers and footings, and obstructions from drift and debris.
- If water level, turbulence, or other conditions make a thorough inspection impossible at the site of such a bridge, operations of all trains will be reduced to no more than 20 MPH and prepared to stop for slides, rocks, washouts, debris, track surface irregularities or obstructions on the track until the entire train has passed the condition/warning limits until it is possible to make a proper inspection.
- If, during the initial track inspection, there is any doubt about the safety of train operations over bridges, a qualified Structures employee must be called at once, and any speed restrictions that have been placed on bridges will not be lifted until authorized by the Structures employee.
- Track and bridge foremen must continue to patrol past their respective territories if an adjoining territory is likely to have been damaged, and such damage might not have been discovered.

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**Excessive Wind Instructions**

When wind warnings are received meeting the wind speed criteria, the train dispatcher will make a general radio broadcast regarding the High Wind Warning over the radio(s) nearest the affected area and then will notify all affected trains and employees with movement authority providing time and limits of the expected high winds. The term "until traversed" may be used in place of communicating the expiration time of the warning when notifying trains and MW authority holders of wind warnings. Until traversed means the rear of the train is clear of the limits. The following table governs movement of trains within or entering the High Wind Warning limits when the general radio broadcast is received:

| Wind Speed | Passenger Trains (includes Amtrak, commuter trains and freight trains consisting entirely of business cars) | Light engines, empty bulk commodity tank car unit trains containing loaded buffer cars (if equipped) weighing 75 tons or greater, loaded ribbon rail trains and loaded bulk commodity unit trains as defined in the Air Brake and Train Handling Rules Glossary. | Trains handling cars with two empty containers stacked on top of one another (as indicated on train list) | All other trains |
|---|---|---|---|---|
| 51 to 60 MPH | 40 MPH* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |
| 61 MPH or greater | Staging requirements* | Not affected | Stop until directed otherwise by the train dispatcher | Staging requirements* |

**Staging Requirements:**

Affected trains and equipment may proceed not exceeding 20 MPH pending notification of a staging location (e.g. station, siding or location with double crossovers) as directed by the train dispatcher to allow trains not affected by the wind warning to pass.

* When local weather conditions are observed not to be as severe as the wind warning indicated and these conditions would not impact safety, an employee making the observation will advise the train dispatcher of the local conditions. If the employee advises local wind conditions are 50 MPH or less, with chief dispatcher authority the train dispatcher may grant permission for the passenger trains restricted to 40 MPH and other affected trains to operate at maximum authorized speed. Observations of local wind conditions can be made by any of the following:

- Crew member on an affected train
- Railroad employee in the field at location of warning equipped with a wind monitoring device (anemometer)
- Local tower mounted wind monitoring device (anemometer)
- Utilizing BNSF Railway WIND App

**Tornado Watch and Warning Instructions**

Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile and extend the length of a city block to 300 miles. The greatest potential for such storms usually exists from April through September.

When tornado watch or warnings are received, the train dispatcher will notify all affected trains and employees with authority in the area providing the tornado watch or warning information.

A "tornado watch" means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4-6 hours before the conditions may occur.

During a tornado watch, all train movements and yard activities will continue, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud, or combination of the above. When a crew knows they are in a watch area, the radio on a locomotive or a packset should be used to monitor instructions and information to and from the train dispatcher. In the event a crew spots a funnel cloud, the train dispatcher should be immediately notified, consistent with the crew's safety.

If a train or yard assignment has an occupied caboose, upon being notified of a tornado watch, the occupants of the caboose should immediately move to the locomotive consist. While in the process of moving to the locomotive, if the tornado watch turns into a "tornado warning," or a funnel cloud is spotted, those affected should seek shelter in a nearby ditch, ravine, culvert or in a depression. If none of these are available, lie face down on the ground with hands over the head away from the caboose or cars in the train.

A "tornado warning" means a tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains and crews appraised of limits of tornado warnings. Train crews are to follow instructions as follows:

During a tornado warning, all train movements and yard activities must stop. Any train enroute will stop and employees should seek appropriate shelter consistent with the safety of all involved, avoiding the stopping of a train on a high bridge, across railroad and highway crossing at grade, or anywhere the presence of a train could be a hindrance.

After the tornado warning has expired:

- If determination is made that the path of the tornado crossed the tracks at the location or in the immediate vicinity of the train, crew members must inspect their train before moving to determine if any damage or derailment has occurred to the train or if the track structure has been damaged.
- All trains within or entering the tornado warning limits may proceed, prepared to stop when approaching bridges, culverts, or other points likely to be affected until relieved by the dispatcher. The train dispatcher must be advised immediately of damage or unexpected conditions.
- The train dispatcher must restrict trains as prescribed in the second bullet, until an inspection has been completed by division employees or all of the limits of the tornado warning have been traversed by a train and it is confirmed by the train crew(s) that no damage or unexpected conditions were observed.

**Cold Weather Restrictions:**

The correlations that exist between rail service failures, temperature, train axle load, track and equipment conditions, and train speed are complex and involve many factors including equipment and track component design and material properties, their relative wear conditions, and the rail/wheel interaction for various traffic mixes and operating conditions.

In order to maximize safety with regard to extreme temperatures and temperature changes, rail laying temperatures and weather extremities across our railroad have been considered. In that effort, the railroad has been divided into two regions as follows:

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**Region 1** contains the following divisions:

| | |
|---|---|
| California | All subdivisions |
| Chicago | Beardstown and Yates City subdivisions |
| Heartland | Afton, Amory, Birmingham, Cherokee, Cuba, Ft. Scott, Hannibal, River, Thayer North, and Thayer South subdivisions |
| Kansas | Arkansas City, Douglass, Emporia, Hereford, La Junta, Panhandle, Strong City, and Topeka subdivisions |
| Montana | Kootenai River subdivision from MP 44.0 to Sandpoint Jct only |
| Northwest | All subdivisions |
| Red River | All subdivisions |
| Southwest | All subdivisions |

**Region 2** contains the following divisions:

| | |
|---|---|
| Chicago | All subdivisions excluding Beardstown and Yates City |
| Heartland | Bayard, Council Bluffs, Creston, Napier, Omaha, and St. Joseph subdivisions |
| Kansas | Boise City, Dalhart, and Twin Peaks subdivisions |
| Montana | All subdivisions excluding that part of Kootenai River subdivision from MP 44.0 to Sandpoint Jct |
| Powder River | All subdivisions |
| Twin Cities | All subdivisions |

**Cold Weather Train Speeds:**
The Engineering Department has identified two factors which require Cold Weather Train Speeds---Low Temperature Threshold and Temperature Differential Threshold, as follows:

**Low Temperature Threshold:**
In Region 1, this threshold is 0 degrees Fahrenheit.
In Region 2, this threshold is -20 degrees Fahrenheit.

Unless further restricted by individual subdivision Special Instructions, be governed by the following:

When ambient (air) temperature drops below the Low Temperature Threshold trains must not exceed the following speeds:

In non-signaled territory:
40 MPH for all trains.

In block signal system limits:

| | |
|---|---|
| Trains 100 tons per operative brake and greater. | 40 MPH |
| Key trains | |
| Trains less than 100 tons per operative brake. | 50 MPH |
| Passenger trains, Z-symbol intermodal trains, or single level loaded intermodal trains. | 65 MPH |

If in doubt as to the temperature, contact the train dispatcher. Notify the train dispatcher when your train is restricted due to this requirement.

These restrictions remain in effect until the ambient (air) temperatures rise above the Low Temperature Threshold.

**Temperature Differential Threshold:**
In Region 1, this is any temperature of 50 degrees Fahrenheit or warmer that falls to 10 degrees Fahrenheit or colder within 24 hours.

In Region 2, this is any temperature of 40 degrees Fahrenheit or warmer that falls to 0 degrees Fahrenheit or colder within 24 hours.

The train dispatcher will make notification to trains that temperature has exceeded the Temperature Differential Threshold. When so notified, trains must observe Cold Weather Train Speeds, by Region, as shown above. The Engineering Department will perform a track inspection, reporting results to the train dispatcher. If no further restrictions result from the track inspection, the train dispatcher will verbally notify the trains affected.

Be aware that Cold Weather Train Speeds may still be required due to Low Temperature Threshold. In other words, once track inspection is completed following a Temperature Differential Threshold, the ambient (air) temperature may still be below the Low Temperature Threshold, requiring that Cold Weather Train Speeds must still be observed.

However, if the ambient (air) temperature is above the Low Temperature Threshold and no further restrictions resulted from track inspections, observance of Cold Weather Train Speeds is not required.

**Determining Ambient Temperature**
When referring to a subdivision timetable for extreme air temperature operating instructions, be governed by the following:

- Ambient air temperature readings may be obtained by train crews utilizing any local means available such as field personnel, track side warning detectors, yardmasters, temperature displays from such sources as banks, etc.
- When unable to determine the ambient air temperature utilizing local methods, contact the train dispatcher who will determine ambient air temperature at the closest available location utilizing the AccuWeather website or other available means.

**Earthquake Instructions**
When an earthquake is reported, the train dispatcher will do the following: (See Decision Table, next column)

1. If the magnitude or epicenter are unknown, instruct all trains within 150 miles of the reporting location to “proceed at Restricted Speed due to earthquake conditions.” An acknowledgment must be obtained from each train or engine receiving these instructions.
2. Once magnitude and epicenter are known, the following inspection criteria will apply:
   - If magnitude is less than 5.0, no inspection is required.
   - If magnitude is 5.0 or greater, response will depend on the group of states and provinces within which the epicenter is located and the following criteria will apply within the designated radius from the epicenter.

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| Magnitude Range | Criteria for Response | Group 1 Radius | Group 2 Radius | Group 3 Radius | Group 4 Radius |
|---|---|---|---|---|---|
| Less than 5.0 | No Inspection Required | N/A | N/A | N/A | N/A |
| 5.0 to 5.49 | Trains proceed at Restricted Speed until signals have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 5.5 to 5.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | 30 Miles | 40 Miles | 70 Miles | 70 Miles |
| 6.0 to 6.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 150 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 50 Miles | 80 Miles | 150 Miles | 80 Miles |
| 6.5 to 6.99 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 220 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 70 Miles | 140 Miles | 220 Miles | 140 Miles |
| 7.0 to 7.49 | Trains proceed at Restricted Speed until signals, track and bridges have been inspected. | N/A | N/A | N/A | 400 Miles |
| | Trains stop until signals, track and bridges have been inspected. | 100 Miles | 300 Miles | 400 Miles | 300 Miles |
| 7.5 and above | Trains stop until instructed to proceed after inspection of track, signals and bridges completed. | As Directed* | As Directed* | As Directed* | As Directed* |

* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

Group 1: California and Baja California, Mexico
Group 2: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico
Group 3: Area east of Group 2
Group 4: Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

**35. Switching and Handling Business Cars**

a. Business Cars must be handled as outlined in accordance with GCOR 7.3, 7.6, and 7.9.
b. Air Brakes—The Business Car air brake system must be connected to the locomotive and the automatic air brake used in controlling movements during switching.
c. Coupling—When coupling into Business Cars, Business Car equipment, or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. Business Cars must not be cut off while in motion or no car moving under its own momentum should be allowed to couple to them.
   Note: Business cars being added to the rear of trains must be performed by a separate locomotive (switch engine) with coupling not to exceed 1 mph. Do not attempt to make a coupling with the rear of the outbound train onto the business cars being added.
d. After Coupling—Once the coupling is made to the Business Car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communication connections.
e. When cars are to be coupled to the observation end of BNSF Business Car 30 (Glacier View) and Business Car 32 (William B. Strong), the car next to the Business Car must be an empty flat, gondola or other type of car with a low profile.
f. 480 Volt electrical jumper cables between Business Cars or any other car so equipped will be considered to be energized until applicable lockout/tagout procedures confirm connections are de-energized. All connections and disconnections are to be performed by authorized Mechanical Personnel Only.
g. Cars are to be considered occupied at all times whether they are moving in the train or parked.
h. When cars or trains are parked, protection must be established as outlined in GCOR 5.12. Local Transportation Department will coordinate with local Mechanical Department to provide required protection.
i. White “Occupied Camp Car” signs will be available on Business Cars through Business Car personnel.
j. All hand brakes must be fully released before moving Business Cars. If a hand brake is not accessible on an enclosed vestibule, the on board Mechanical Rider or Mechanical Supervisor must be contacted to allow access or verify that hand brakes have been released.
k. Business Cars cannot be moved until vestibule steps are raised. Vestibule steps must not be lowered until Business Cars have come to a complete stop.

**36. Instructions for Handling Continuous Rail**

(Excluding articulated loads of 80 ft. length rail or less) Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by ABTH Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the “rail” cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled “Buffer/Idler” in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BNSF 920119 through BNSF 920173 , BNSF 920230 through 920249, and BNSF 920280 through 920299 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

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**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
   - Must be handled in special service.
   - Must not be required to make setouts and pickups enroute.
     - Exception: When authorized to operate two loaded rail trains together, splitting of the trains is permitted.
   - Must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)
   May be handled in trains other than special service under the following conditions:
   - Rail train must be on head end.
   - Train length limited to 64 cars.
   - Should not be required to make setouts and pickups enroute.
   - Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
   - If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative enroute, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
   - Strobe lights at each end ramp car must be observed frequently enroute. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
     a. If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
     b. If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.
   - If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

   The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolyte batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

   The “ramp or tunnel” strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

   To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute; and fully charged batteries will operate them for about sixteen hours.

   The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

   Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

   At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**

Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4” x 4” hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**

When handling empty ‘rail train’ blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car.

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**37. Key Train and Key Train Commodity Securement Requirements**

Do not leave a Key Train or rail cars meeting the Key Train definition unattended on a main track or siding unless permitted by the train dispatcher.

The train dispatcher may only grant permission to leave the train or car(s) at locations specified by timetable/special instructions or when otherwise necessary, after consulting with NOC-General Director Transportation, Corridor Superintendent, Assistant Corridor Superintendent, or Chief Dispatcher to evaluate operating circumstances.

When permission to leave the train or car(s) is received from the train dispatcher:

- Job brief between members of the crew to review all applicable securement requirements.
- Secure equipment as required by all securement requirements of the employing railroad.
- Include the following in a job safety briefing with the train dispatcher, who will verify information is provided:
  - Tonnage and length of train (or total number of individual cars) left unattended,
  - Grade of track at the location as indicated by timetable grade chart.
  - Whether equipment secured is located on curve or straight track,
  - Any inclement weather conditions (e.g., precipitation, high wind),
  - Total number of hand brakes applied,
  - Confirmation the train or car(s) is secure. Communication to include statement, "Conductor and engineer agree securement requirements have been met."

Note: These requirements do not apply when a portion of the train or car(s) is left properly secured and the on-duty crew is:

- Picking up, setting out, or repositioning cars at an industry,
- Switching cars to/from tracks adjacent to main track or siding,
- Adding, removing, or repositioning locomotives, or
- Moving part of a train when doubling a hill or cutting crossings.

**38. De Minimis Territory**

De minimis territory carries a minimal quantity of PIH/TIH materials and must meet certain criteria related to annual tonnage, grade, train spacing, and volume factors including:

- Fewer than 100 loaded cars containing PIH/TIH materials per year, and
- Two or fewer trains per calendar day carrying any quantity of PIH/TIH (loaded and residue/empty).

Prior to operating on de minimis territory train crew must notify the train dispatcher if carrying any quantity of PIH/TIH materials (loaded and residue/empty).

Maximum speed of trains carrying any quantity of PIH/TIH materials on de minimis territory is 40 MPH.

**De Minimis Territories**

| Division | Subdivision | Limits |
|---|---|---|
| Red River | Conroe | MP 77.0 to MP 152.2 |
| Southwest | El Paso | MP 936.1 to MP 1152.5 |
| | Phoenix | MP 135.0 to MP 181.2 |
| Powder River | Casper | MP 458.9 to MP 513.1 |
| Montana | Great Falls | MP 37.3 to MP 97.0 |
| Twin Cities | Aberdeen | MP 704.6 to MP 777.0 |
| | Noyes | MP 0.0 to MP 85.0 |

**39. Train Inspection Due to Track Indication**

A BNSF or foreign line carrier crew instructed by the train dispatcher/control operator to inspect their train due to track indication(s) must promptly stop the train consistent with good train handling procedures and inspect both sides of the entire train. During inspection, particular focus must be given to wheels, axles, trucks or other parts of the train that may cause track damage.

When conditions permit, inspection is to be performed while the train is moving, not exceeding 5 MPH to afford the inspector opportunity to hear a defect such as a broken wheel. To complete inspecting the entire train, inspection may also be performed while backing up not exceeding 5 MPH when all requirements of GCOR 6.6 (Back Up Movements) can be met.

Any side or portion of the train that cannot be inspected while the train is moving must be inspected while the train is stopped. Discontinue inspection if it cannot be completed safely until an alternative is identified by job safety briefing or coordination through the train dispatcher/control operator and/or supervisor.

Notify the train dispatcher/control operator of any defects and when inspection is complete.

**40. Rear End Restricted Cars**

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

**41. Car Identification B-End**

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Multi-platform Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

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**42. Currently Not Used**

**43. Signal Awareness/Position of Switch Form**

Signal awareness and Position of Switch Forms must be completed when operating on subdivisions where PTC is not in effect, or when operating on territory where PTC is in effect and train is not PTC equipped.

Note: On PTC active trains where the PTC system becomes inoperable enroute, Signal Awareness and Position of Switch Forms are not required to be completed.

Subdivision-specific signal awareness/position of switch forms available at on-duty points must contain at least the minimum requirements shown on the standard form. These forms may contain additional subdivision-specific information as approved by the Division General Manager. When subdivision specific signal awareness/position of switch forms are not available, crew members may request a standard form be included with the GTB. When required, in addition to observing and calling signals as required by GCOR 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects, yellow or yellow-red flags and trackside warning detector exceptions must be recorded.

Record the following:

- CLEAR signals - Name or aspect.
- All other signals - Name or aspect of the signal, the train speed and time signal passed.
- Flags - Name and location of each flag, the train speed and time flag passed.

When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (outside of restricted limits or yard limits) a crew member must record:

- Name and location of hand operated main track switches, switch point locks, and derails operated.
- Name and location of hand operated main track switches left in reverse position.
- Time and initials of employee operating the main track switch, switch point lock or derail.
- Time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form.
- Entry of appropriate box number when switch is left in reverse position.

Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail. The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. If not practical for both the conductor and engineer to initial the form, after a job safety briefing, the person filling out the form can enter the other initials on the form. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, when completion of Position of Switch Form is required and operating in non-signaled territory or Double Track ABS territory (except in Restricted Limits and Yard Limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position." If radios become inoperable, all members of crew must job safety brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

Standard forms:

Signal Awareness Form (Location to Location)

Date:_____ Conductor:_____ Engineer:_____

Train Symbol:_____

Block System Limits

| Signal Location / Detector Exception | Signal Name | | | | | | *Speed | *Time Passed / Time at Required Speed | Flag Location and Name |
|---|---|---|---|---|---|---|---|---|---|
| | Clear (Mark X) | Approach Medium (Mark X) | Approach (Mark X) | Stop and Proceed (Mark X) | Stop (Mark X) | Other (Mark X) | | | |
| Examples | | | | | | | | | |
| CP 5325 | X | | | | | | | | |
| CP 5332 | | | X | | | | 40 MPH | 1545 1548 | |
| WSS Anna | | X | | | | | 60 MPH | 1715 | |
| | | | | | | | | | |
| TWD MP 566.5 | Exception - Main 1, Hot Journal, Axle 45, Right side | | | | | | | | |

*It is not required to indicate speed and time for CLEAR signals.
The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting
Y - Yellow Flag, Y/R - Yellow-Red Flag

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| Position of Switch/Flag Location | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subdivision(s) | | | | | | | |
| Flag Location | Flag Name | MPH | Switch/Derail/Switch Point Lock Name and Location | Time/ Initials Operated | Time/ Initials Restored | Engineer's Initials | Conductor's Initials |
| Examples: | | | | | | | |
| MP 21 | Y | 30 | | | | | |
| | | | W House Track SW Bess | 1800 LGW | 1935 LGW | KDW | DET |
| | | | ESS Anna | 2100 LGW | Box 13 | KDW | DET |
| The following abbreviations may be used: Y - Yellow Flag, Y/R - Yellow-Red Flag | | | | | | | |
| Conductor Signature: | | | | | | | |

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)
  - Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
  - Place in company or US mail for handling.
- Notify the train dispatcher of the near collision providing as much information as possible. The dispatcher will notify the ROCC.

Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF Police personnel or to the Resource Operations Call Center at 1-800-832-5452.

**45. Network Operations Center Notification Requirements**

**Procedures for Contacting Help Desks**

- Train Dispatcher - Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an HTD/ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Chief Dispatcher - For Mechanical Related Service Interruptions (SIs), must make sure that the correct lead locomotive ID, ETD, cars, etc., are correctly reported when generating a service interruption in SIDOL.
- Mechanical Help Desk - After initially recording and providing general information about defective locomotives, cars, or an HTD/ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Train crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

Note: At terminals, locomotive and/or HTD/ETD defects (on either ROAD or YARD locomotives) must immediately be reported to local supervision the Mechanical Help Desk. A bad order tag must then be attached to the ETD to prevent subsequent use before repairs can be made and be governed by local supervision on where to place bad ordered ETD.

- Bad Order ETD Handling Between Terminals- Train crews who have a bad order ETD removed from their train must open an ETD defect with the Mechanical Desk, attach a bad order tag to the ETD, and either turn over the bad order ETD to the mechancal responder on site or if no mechanical responder is assisting train, transport the bad order ETD in the front portion of the cab of the lead locomotive. When transporting, ensure the ETD is placed to where a tripping hazard will not exist while entering and exiting the locomotive cab. Upon reaching the terminal, the train crew must contact and be governed by local supervision on where to place the bad ordered ETD. Train crews being relieved enroute must notify relief crew of bad ordered ETD placed in the cab for their handling upon reaching terminal.

Before repositioning of the lead locomotive in a consist, train crews must contact the Mechanical Help Desk to check lead qualification status of other locomotives in the consist to determine which may be used as a lead locomotive.

The Mechanical Help Desk may be contacted by phone at:

Operations North-817-352-2840, Co. Line 8-352-2840
Operations South-817-352-2836, Co. Line 8-352-2836

Service Support-In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting:
BNSF company line-8-593-7610
Toll-free line-800-549-4601
BNSF fax line-8-593-7615
Fax toll-free line-800-234-1341

Interchange reporting:
BNSF company line-8-593-7640
Toll-free line-800-206-3846
BNSF fax line-8-593-7645
Fax toll-free line-800-223-6757

**46. Special Car Handling Instructions (SCHI)**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

| CODE | DESCRIPTION |
|---|---|
| AG | Armed Guard Service |
| AV | Annual Volume |
| BH | Bad Order Home Shops |
| BN | If Bad Order Notify Shipper |
| BT | Bare Table Flat |
| B1 | Bad Order |
| B2 | Cleaned (swept), Holes in floor 1 in. to 6 in. |
| CA | Moving to a Customer Demand |
| CB | CARB (See Note 3) |
| CC | To Be Cleaned and Conditioned |
| CD | Condemned Car (See Note 1) |
| CI | Customs Inspection |
| CO | Coload Manifest Car |
| CR | Empty Coal Car Moving as Revenue |
| CS | Customer Storage |
| CU | Customer Stage |
| CY | Certification That This Equipment is for Recycling |
| DB | Distributed Van Bad Ordered |
| DH | Do Not Hump |
| DI | Redistribute at Destination |
| DK | Do not couple to double shelf coupler cars |
| DN | Shipper's Authority Required for Diversion |
| DO | Delivery Order Shipment |
| DR | Drop Yard |
| DS | Do not spot for loading other than hazardous last contained. |
| DT | Distributed Intermodal Equipment |
| DU | Do Not Uncouple |
| DV | Unit has been diverted |
| EC | Speed Restriction 55 MPH |
| EH | Embargo Hold |

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EL ..... Empty Container Mechanical Lock
EM ..... Hold for Equipment Management
ER ..... Return Empty Via Reverse Route
ES ..... Expedited Service
EW ..... Hold Early Warning
FA ..... Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB ..... Automobiles Headlights Facing B (Brake End) of Autoveyor
FM ..... Fumigate Car Now
FP ..... Fumigation Placards Applied
HA ..... Cars Held for the Customer in Bond Pending Customs Authority
HB ..... Hold for Billing—Mini Waybill Indicating Industry to Bill
HC ..... Hold for FMC Redistribution
HD ..... Cars Held for Customer Diversion
HE ..... Head End Only
HF ..... Car Held for BNSF Rail Clearances (High Wide)
HG ..... Cars Held for BNSF Pending Customer File Information
HH ..... Cars Held for Overload Condition
HI ..... Hold for Inspection
HJ ..... Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK ..... Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL ..... Excessive Dimension
HM ..... Moving in ISO Tank Container
HN ..... Cars Held for Specified Local Conditions, **Restricted Usage
HO ..... Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR ..... Cars Held for Customer Furtherance Instructions After Arrival at Destination
HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement
HT ..... Heat Car
HV ..... High Value Shipment
HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier
IB ..... In BNSF Bond
IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs
ID ..... In Bond Beyond BNSF Destination
IE ..... Interchange Error
IH ..... Inhalation Hazard
IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico
IN ..... Hold for Inspection
IS ..... In Shipper's Bond
IU ..... Inspection was Requested by US Customs at Port of Entry into USA
LC ..... Car Trip Leased to Consignee
LD ..... Local Distribution Empty
LG ..... Loaded to Gallonage Capacity
LO ..... Local Orders
LQ ..... Loaded to Full Cubic Capacity
LS ..... Handle in Local Service Only
LU ..... Unload in Laredo proper
LV ..... Loaded to Full Visible Capacity
LX ..... Cleared for export via Laredo
L1 ..... Customer Location 1
L2 ..... Location 2 - East Plant
M8 ..... Inspect 8 axle or greater span bolster car for ride quality components
MB ..... Make Bill of Lading
MC ..... Measure Car Now
MD ..... Mixed Destination Intermodal Units
MI ..... Requires mechanical inspection, do not move on train.
MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit
MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit
NC ..... Non-credit Patron
ND ..... Do Not Divert
NH ..... No Hit—Car Distribution
NL ..... IMDL van or container requires Nava Lock device
NM ..... Non Misc. Credit Patron—Car held account charges due
NP ..... No Placards Required
NT ..... Do Not Transfer Contents
OI ..... Oils Marine Pollutant
ON ..... Oil Notation
PD ..... Privately Owned Equipment Subject to Demurrage
PH ..... Hold for Pool Destination
PJ ..... Mechanical Project Job
PR ..... Prospective Loading Empty
PT ..... Hold for Pre-Trip
QD ..... Hold for Queue Demand
QH ..... Hazmat Hold—Do Not Transport
RC ..... Restricted Commodity
RE ..... Rear End Only
RI ..... Rail Inspection Service
RJ ..... Hold for Rejected
RL ..... Revenue Locomotive - Check for Alignment Control
RP ..... Rail Controlled Private
RS ..... Rule 7 Reject Candidate
SC ..... Equipment Scrapped
SD ..... Car Sold
SE ..... Hold for Seasonal Storage
SF ..... Feed Now
SH ..... OPSL Hold
SO ..... Shipper's Order
SR ..... Rail Surveillance Required
SS ..... Surplus Storage
ST ..... Move on special train only, requires single car train movement.
SW ..... Switch Only Empty Furnished by Foreign Road
SX ..... Speed Restriction Exception to Sys Special Inst. - OK to Run at Train Speed
TB ..... Car Control Distributed Bad Order
TC ..... Tank Car, Meets CPC-1232 standards
TN ..... Tank Car, Non - CPC-1232 standards
TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated
TS ..... Transit Shipment
TU ..... Turn This Car Now
UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.
UP ..... Unloaded as Placarded
UR ..... Unload from right side (from brake end)
VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)
VB ..... Vehicles Headlights Facing B-End (Brake End)
WA ..... Weigh After Spotted and Released
WB ..... Weigh This Car Both Before and After It Goes to Spot
WH ..... Weigh
WI ..... Waive Inspection
WL ..... Weigh Light
XM ..... Cleared to Cross from US to Mexico
25 ..... 25 MPH Speed Restriction (See Note 2)

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**Clean and Condition Codes for Empty Cars**

| CODE | DESCRIPTION |
|---|---|
| F1 | Washed, Food Grade |
| F2 | Cleaned (Swept), Food Grade |
| F3 | Dirty, Food Grade |
| F4 | Cond/Repairs, Food Grade |
| F5 | "Not Observed", Food Grade |
| F6 | Rinse, Food Grade |
| F7 | Inspected, Food Grade |
| P1 | Washed, Processor Grade |
| P2 | Cleaned (Swept), Processor Grade |
| P3 | Dirty, Processor Grade |
| P4 | Cond/Repairs, Processor Grade |
| P5 | "Not Observed", Processor Grade |
| P6 | Rinse, Processor Grade |
| P7 | Inspected, Processor Grade |
| S1 | Washed, Standard Grade |
| S2 | Cleaned (Swept), Standard Grade |
| S3 | Dirty, Standard Grade |
| S4 | Cond/Repairs, Standard Grade |
| S5 | "Not Observed", Standard Grade |
| S6 | Rinse, Standard Grade |
| S7 | Inspected, Standard Grade |
| S0 | Washed and Sanitized |

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

**Note 3.** The California Air Resource Board (CARB) has instituted tighter emissions standards for transportation refrigeration units. Some BNSF refrigerated boxcars are not compliant with the new standard and therefore cannot originate, terminate or transit through California state. Non-CARB-compliant cars can be identified by a CB code in the SCHI field and are color coded reverse video blue in TSS.

Equipment management controls have been implemented to assign only CARB cars to the state of California. Waybill edits will verify compliance at release and place a STOP on non-CARB cars if waybilled to a California destination.

No substitution between Non-CARB and CARB cars is allowed unless work orders specifically authorize the exception. Yard Block HOLDCB prevents any Non-CARB cars destined to California, or originating in California from scheduling to a train. Cars will go HOLDMT at origin.

Non-CARB cars will not schedule to trains terminating in or passing through California. Attempts to TRNSET a Non-CARB car to a California-routed train will result in a pop-up window advising that the car must be removed from the line-up and explaining why.

For questions or assistance with handling exceptions for BNSF refrigerated boxcars, email your concerns to the CARB Resolution Team at "MKT DL CP CARB".

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M2F and M3F (articulated Hi Bi/Tri-Levels) must not be operated on any Branch Line or on any of the following locations:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Carlsbad Subdivision—Mines Jct. to Carlsbad
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Laurel Subdivision
- Lester Subdivision
- Longview Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Scenic Subdivision—(Exception: Car kinds M2F and M3F may operate on this subdivision and use only MT 2 between MP 0.15 and MP 1.11.)
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Mitchell Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kinds M2F and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7 f).

**47. Train Makeup Instructions**

If a train is determined to be out of compliance with these train makeup rules as listed in items 47 & 47(A), and the maximum authorized speed exceeds 45 MPH, the speed must immediately be reduced to 45 MPH and the train dispatcher notified. The train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**System Tonnage Restrictions:**

1. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car):
   - Any car 80 ft or longer coupled to any car 45 ft or shorter.

   Note: Item 1 does not apply to test cars BNSF 82/83 and multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars.)

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2. The following cars must not be ahead of more than 5,500 trailing tons:
   - Multi-platform spine cars, regardless of how loaded.
     - See Subdivision Specific Tonnage Restrictions below for additional multi-platform spine car tonnage instructions.
3. Trains greater than 5,500 total tons (excluding empty bulk commodity trains):
   Restricted cars must not be within the first 10 cars/ platforms

The following are restricted cars that pertain to SSI 47 System Tonnage Restrictions Item 3 and Mountain Grade Tonnage Restrictions Items 1 & 2 below:

- Any conventional car (non-multiplatform) weighing less than 45 tons.
- Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK) and Wind Tower Trains with distributed power.
- Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.
  Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
- Multi-platform cars with any empty platforms. Note: All multi-level, multi-platform autorack cars referred to as "AutoMax" cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.

4. Trains greater than 7,000 tons:
   The rear 1/4 of the train by car count must not weigh more than 1/3 of the total weight.
   Exception: This does not apply to:
   - trains made up entirely of cars weighing a minimum of 45 tons each.
   - solid loaded or solid empty unit bulk commodity trains.
   - trains made up entirely of intermodal equipment.

**Mountain Grade Tonnage Restrictions**

The following restrictions are in addition to System Tonnage Restrictions (excludes solid empty bulk commodity trains):

1. On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 2,500 trailing tons.
   - Trains greater than 2,500 tons and less than 3,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 3,000 tons or greater, restricted cars must not be within the first 15 cars/platforms.
2. On Cajon (Main 3, MP 56.6 - MP 62.8), North County Transit Coaster (MP 250 - 255), Gateway (MP 178.0 - 188.0), UPRR Mojave (MP 331.3 - MP 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5) Subdivisions, the following additional restrictions apply:
   - Trains greater than 3,500 tons and less than 4,000 tons, restricted cars must not be within the first 10 cars/ platforms.
   - Trains 4,000 tons or greater, restricted cars, automax cars weighing less than 120 tons, and autoracks weighing less than 60 tons (does not apply to DP trains consisting entirely of automax/autorack cars), must not be within the first 15 cars/platforms.
3. On Cajon (Eastward Main 3, MP 56.6 - 62.8), North County Transit Coaster (MP 250 - 255), UPRR Mojave (Eastward MP 331.3 - 381.3), UPRR Moffat Tunnel (MP 17 - 63), UPRR Provo (MP 626 - 685), Gateway (Northward MP 178 - 188), Stampede (MP 41 - 58.5) and Scenic (Eastward MP 1694.5 - 1731.3) Subdivisions, the following additional restrictions apply:
   - Multi-platform spine cars, regardless of how loaded, must not be ahead of 4,000 trailing tons.
4. On Glorieta (MP 775.0 – MP 842.0), Raton (MP 639.0 – MP 660.0), Cajon (Main 3, MP 56.6 – MP 62.8), North County Transit Coaster (MP 250 – MP 255), Gateway (MP 178.0 – MP 188.0), UPRR Mojave (MP 331.3 – MP 381.3), UPRR Moffat Tunnel (MP 17 – MP 63), UPRR Provo (MP 626 – MP 685), Scenic (MP 1694.5 – MP 1731.3) and Stampede (MP 41.0 – MP 58.5) Subdivisions, the following additional restrictions apply:
   - Cars weighing 35 tons or less, that are 80 ft. or longer or that are coupled to cars 80 ft or longer must not be ahead of 4,000 trailing tons.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 3, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

**Subdivision Specific Tonnage Restrictions**

Intermodal trains operating with multi-platform spine cars, regardless of how loaded, are subject to System Tonnage Restrictions as well as the additional restrictions below:

On the Chillicothe, Marceline, Emporia, Arkansas City, La Junta, Topeka, Panhandle, Hereford, Clovis, Gallup, Seligman, Needles, Fort Worth (between MP 365 and MP 355), Wichita Falls and Red River Valley Subdivisions, trains operating with DP may exceed 5.500 trailing tons behind multi-platform spine cars if the following conditions are met:

1. No more than 30 cars equipped with End of Car Cushioning (Autoracks and Super Reefers identified in subdivision specific timetable).
2. Trains operating with rear only DP:
   - Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.
3. For trains operating with cut-in DP:
   - Tonnage ahead of and behind the cut-in DP consist must be within 2,000-tons of each other.
   - Trains operating with DP consist cut-in and no rear DP:
     Multi-platform spine cars ahead of the cut-in DP must not be ahead of more than 11,000 trailing tons. In addition, multi-platform spine cars behind the cut-in DP must not be ahead of more than 5,500 trailing tons.
   - Trains operating with both cut-in and rear DP:
     Multi-platform spine cars must not be ahead of more than 11,000 trailing tons.

**Exceptions**

Trains which are exempt from the above train makeup instructions will be identified on Division General Order.

UPRR trains operated on BNSF may operate in compliance with UPRR train makeup rules with the exception of distributed power train length limitations as outlined in 47(A).

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train makeup instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train makeup instructions, train is authorized to operate on BNSF at a maximum speed of 45 MPH.

**Train Length, Tonnage and TOB**

When complying with Special Instructions covering speed and other train restrictions where calculations of train length, tonnage and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

Exception:

1. The weight of isolated/inoperative locomotives is added to train trailing tonnage when determining HPT in the application of ABTH Rule 106.1 Regulating Horsepower per Ton, and
2. The weight of locomotives with isolated/inoperative dynamic brakes is also added to train trailing tonnage when determining the minimum number of dynamic brake axles where required on mountain grade subdivisions.

**Military Train**

Unit military trains containing shipments on cars with end of car-cushioning, shown on the train profile as EOC, shall have no more than a total of 80 cars in the train when operating with conventional power (head end only). Train may operate in excess of 80 cars but no more than 90 when operating with a distributed power consist, either cut-in and/or on rear of train. If train (DP or non-DP) exceeds 60 cars, speed is restricted to 45 mph.

**Loaded Coiled Steel Cars**

The maximum number of loaded coiled steel cars and GRS/G0S on any train is limited per the table below:

| Total Coil Cars in Train | Maximum # of GRS/G0S Coil Cars |
|---|---|
| 80 | 0 |
| 70 | 10 |
| 65 | 20 |
| 60 | 30 |
| 55 | 40 |
| 50 | 50 |

**Additional Train Makeup Restrictions Applicable to Trains Containing Coiled Steel Cars Operating on:**

- Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0)
- Ft. Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346)
- Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0)
- Lampasas
- Phoenix
- Seligman
- Thayer North
- Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP - 496.1) and,
- Wichita Falls (except between Deen Rd. - MP 4.8 and Fort Worth Connection - MP 9.9) and,
- UP Lufkin.

**1. Conventional Unit Coiled Steel Trains**

Conventional (non-DP) unit trains made up entirely of loaded G0S and GRS cars are limited to 30 cars total and will be operated in a 2x0 configuration.

**2. Conventional Manifest Trains Containing Coiled Steel Cars (mixed freight without distributed power)**

| Total Train Tonnage | Maximum Loaded Steel Cars with End of Car Cushioning Allowed |
|---|---|
| 4,500 tons or less | 30 |
| 4,501 - 5,500 tons | 25 |
| 5,501 - 6,500 tons | 20 |
| 6,501 - 7,500 tons | 15 |
| 7,501 - 8,500 tons | 10 |
| Greater than 8,500 tons | 0 |

When moving on conventional trains, all loaded shipments identified by car kind code G0S or GRS (includes ATSF, BN, BNSF, foreign and private equipment) must be placed within the first 20 cars of the train and be as close to the locomotives as practical. When handling more than 20 G0S or GRS loaded shipments, these cars must be placed directly behind locomotive consist.

**3. Unit Coiled Steel Train Operating with DP**

Unit trains made up entirely of loaded G0S and GRS cars are limited to 50 cars total and will be operated in a 1X2 DP configuration with dynamic brakes cut out on the trail unit of the remote DP consist. The dynamic brakes must remain cut in on the controlling DP remote unit.

**4. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with DP on Rear**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars)
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist.

**5. Manifest Trains Containing Loaded G0S/GRS Coiled Steel Cars Operating with Cut In DP**

Trains containing more than 10 loaded G0S/GRS coiled steel cars:

- May not have more than 30 cars equipped with end of car cushioning (including G0S/GRS cars) ahead of the cut in DP
- Must have the G0S/GRS cars immediately behind the lead locomotive consist. Exception: G0S/GRS cars may be intermixed with other loaded coiled steel cars in a block directly behind the lead locomotive consist
- May not have more than 15 additional cars equipped with end of car cushioning behind the cut in DP.

**Wind Tower Trains**

Wind Tower Trains containing loads and empty idler cars shall have no more than a total of 80 cars in the train. Trains exceeding 5,500 tons must operate with a single distributed power unit either cut in or on rear of train.

**47(A). Train Makeup Instructions and Locomotive Requirements Applicable to Conventional, Distributed Power and Manned Helpers**

Note: In the application of instructions below, the terms "DP and "DP remote consist(s)" refers to trains utilizing distributed power and/or manned helper consists. The term "rear end" refers to the very end of the train and "cut in" refers to placement within the train with cars on both sides. RPA refers to Rated Powered Axles and can be referenced in SSI, Locomotive Data Table, 2(B).

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### 1. Maximum Rated Power Axle (RPA) Limitations for Conventional, Distributed Power and Manned Helper Placement

| Train Type | Head End | Cut In DP/ Helper | Rear end DP/ Helper |
|---|---|---|---|
| Manifest | 42 | 24 | 16 |
| Intermodal | 48 | 24 | 16 |
| Empty Bulk Commodity | 24 | 16 | 8 |
| Loaded Bulk Commodity (no empties in train) | 32 | 40 | 24 |

**DP RPA Differential:**
Single Remote/Helper Consist- If operating with one distributed power consist either cut-in or on the rear, total RPA of head end locomotive consist must not exceed 16 RPA of the total RPA of DP/Helper locomotive remote consist. In addition, total RPA of the remote consist must not exceed 8 RPA of the head end locomotive consist.

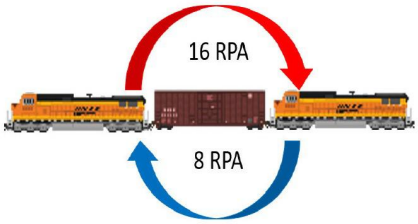



*Figure 1.*

**Multiple DP Consists**
If operating with distributed power cut-in and on the rear, individual consist RPA must not exceed 16 RPA of the next consist towards the rear of the train (Head to Mid; Mid to rear). In addition, RPA of each consist must not exceed 8 RPA of the next consist towards the head end of the train (rear to mid; mid to head end).
Exception - Does not apply to loaded bulk commodity trains.

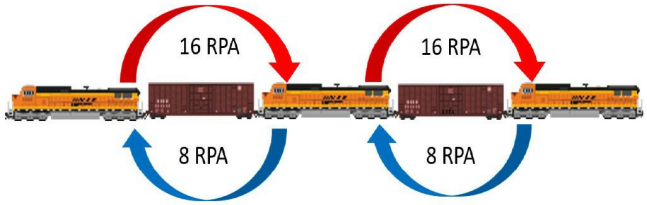



*Figure 2.*

Exception: Trains exceeding 8,000 tons operating on the heavy grade subdivisions listed below, must limit the total RPA of the head end locomotive consist to no more than 8 RPA greater than the total RPA of the DP/Helper locomotive remote consist(s).

Cajon (Main 3, MP 56.6 - MP 62.8, eastward only)
Gateway (MP 178.0 - 188.0, northward only)
Glorieta (MP 775.0 - MP 842.0)
Raton (MP 639.0 - MP 660.0)
North County Transit Coaster (NCTC) (MP 250 - 255)
Scenic (MP 1694.5 - MP 1731.3)
Stampede (MP 41.0 - MP 58.5)
UPRR Moffat Tunnel (MP 17 - 63)
UPRR Mojave (MP 331.3 - MP 381.3, southward only)
UPRR Provo (MP 626 - 685)

### 2. DP Remote and ETD Placement Limitations

| Distributed Power and ETD Length Limitations | |
|---|---|
| **Train description** | **Maximum length allowed, excluding locomotives** |
| Conventional trains and trains operating with a cut-in single DP/ helper consist not equipped with mid-train ETD repeater | 10,000 ft between lead locomotive consist and end of train device (ETD) on rear<br>Exception: Loaded vehicle trains - 8,000 ft between lead locomotive consist and ETD on rear |
| Trains operating with cut-in DP/ helper consist (mid-train ETD repeater) with 2-way ETD | 16,000 ft between lead consist and ETD |
| Solid intermodal trains containing no autoracks operating with a single DP remote consist on rear | 12,000 ft between lead consist and remote DP consist (Lead locomotive and DP remote must be LXA equipped) |
| Solid intermodal (without LXA), manifest, or bulk commodity trains operating with a single DP remote consist on rear | 10,000 ft between lead consist and remote DP consist |
| Train of any type operating with two DP remote consists, cut in and on rear of train | 16,000 ft between lead consist and rear remote DP consist |

Placement instructions for Cut in/Helper DP Consists:

a. One DP Remote Consist

A single DP remote consist cut into the train must not have the cut in DP consist further than 10,000 feet from the head end of train (excluding locomotive length). Single DP consists cut into the train exceeding 8 RPA must be cut in at 300 tons per axle exceeding 8 RPA, but no closer to the head end than 20 cars forward of mid-train, by car count, as long as train makeup requirements next to DP remote consist outlined below in Item 47(A) 3 and 4 are met.

Exception: The requirement to cut in at 300 tons per axle exceeding 8 RPA does not apply to solid intermodal trains, trains with solid intermodal equipment behind cut in DP/Helper consist or trains with loaded bulk commodity cars ahead of cut in DP/Helper consist. On solid intermodal trains, the DP remote consist must be cut in no closer than 1000 feet forward of mid train by length, as long as train makeup requirements next to DP remote consist outlined below in item 47(A) 3 and 4 are met.

b. Two DP Remote Consists

When two DP remote consists are used, they must be positioned with one DP remote consist cut into the train, and one DP remote consist at the rear end. The cut in DP remote consist must not be cut in further than 10,000 feet from the head end of train (excluding locomotive length) and must not be closer to the head end than 20 cars forward of mid-train, by car count.

Exception: Solid intermodal trains operating with two DP remote consists must not have the cut in DP remote consist further than 10,000 feet from the head end of train (excludes locomotive lengths) and must not be closer to the head end than 1,000 feet forward of mid-train, by length.

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### 3. System Distributed Power and Manned Helper Train Makeup Restrictions

<table>
<tr><th colspan="2">DP Locomotive Consist RPA/ Location/Restricted Car Placement</th><th>Restricted Cars</th></tr>
<tr><td>Cut In DP/ Helper, any RPA</td><td>Rear end DP/ Helper, any RPA</td><td></td></tr>
<tr><td colspan="2" rowspan="3">Must be at rear of train behind any rear end DP/helper consist</td><td>Cars indicated as rear end only.</td></tr>
<tr><td>AMGX 2-unit solid drawbar connected gondolas</td></tr>
<tr><td>Occupied caboose</td></tr>
<tr><td>Cut In DP/Helper 9 - 24 RPA</td><td>Rear end DP/Helper 9 - 16 RPA</td><td></td></tr>
<tr><td rowspan="5">Restricted cars listed must not be within 5 cars or platforms/ wells ahead of or behind cut in consist.<br>Exception: Does not apply to empty bulk commodity/ combination trains, trains with only baretable equipment behind the cut in DP or to loaded single well double stack cars of any weight (car kind beginning with QU or QK).</td><td rowspan="5">Restricted cars listed must not be within 10 cars or platforms/wells ahead of consist on rear end.</td><td>Any car 80 ft or longer coupled to any car 45 ft or shorter.<br>Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer.<br>(Examples: Twin flat cars and Automax cars.)</td></tr>
<tr><td>Any conventional car (non-multiplatform) weighing less than 45 tons.<br>Exception: Does not apply to loaded single well double stack cars of any weight (car kind beginning with QU or QK)</td></tr>
<tr><td>Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight.<br>Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/ container on either segment/ platform.</td></tr>
<tr><td>Empty platforms/wells of a multiplatform car.<br>All multi-level, multi-platform autorack cars referred to as “AutoMax” cars, are considered to have loaded platforms in the application of this rule, regardless of whether car is loaded with vehicles or not.</td></tr>
</table>

### 4. Additional Train Makeup Restrictions Applicable to DP Trains Operating on:

Birmingham, Cuba, Ft Scott (except between Edward - MP 102.6 and 19th Street Yard - MP 0.0), Ft Worth (except between Gainesville - MP 411.3 and Fort Worth - MP 346), Galveston (except between Bellville - MP 106.2 and Galveston - MP 0.0), Lampasas, Phoenix, Seligman, Thayer North, Thayer South (except between River Jct. - MP 462.6 and Tennessee Yard - MP 496.1), Wichita Falls and UPRR Lufkin Subdivisions.

<table>
<tr><th>DP Locomotive Consist RPA/ Location/Restricted Car Placement</th><th>Restricted Cars</th></tr>
<tr><td>Cut In DP/Helper or rear end DP/Helper up to 8 RPA</td><td></td></tr>
<tr><td rowspan="2">Restricted cars listed must not be placed within 5 cars or platforms/wells of DP/Helper consist. (cut in and/or on rear end)</td><td>Any car 80 ft or longer coupled to any car 45 ft or shorter. Does not apply to multi-platform equipment unless individual platforms are 80 feet or longer. (Examples: Twin flat cars and Automax cars.)</td></tr>
<tr><td>Any 80 ft. or longer flat car with a single trailer/ container, regardless of car weight.<br>Also applies to twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.</td></tr>
<tr><td>Cut In or Rear End DP/Helper consist of 9 – 24 RPA (Does not apply to trains with 2, single-locomotive DP remotes)</td><td></td></tr>
<tr><td>Restricted cars listed must not be placed within 10 cars/ platforms of lead consist and remote consist(s)</td><td>Any conventional car (non-multiplatform weighing less than 45 tons.<br>Exception: Does not apply to empty bulk commodity/ combination trains operating with cut in DP consists or loaded single well double stack cars of any weight (car kind beginning with QU or QK).</td></tr>
<tr><td>Restricted cars listed must not be placed between lead consist and remote consist(s)</td><td>Intermodal equipment other than double stack and autoracks, regardless of how loaded. (Conventional intermodal flat cars, spine cars - car kind QM, QC, QO, Q5 and QE and twin flats - car kinds FM, QB, QD and QL.)</td></tr>
<tr><td></td><td>No more than 30 cars with end of car cushioning ahead of any individual consist of 9 RPA or greater. (Does not apply to solid intermodal and solid loaded bulk commodity unit trains with cars equipped with end of car cushioning.)</td></tr>
</table>

### 5. Limiting Tractive Effort When Using Manned Helpers with Trains Not in Compliance with Train Makeup Guidelines:

Conventional trains may be helped from the rear of train with a manned helper only (DP may not be used) when exceeding axle limitation guidelines above if train is disabled and not in compliance with train makeup restrictions for DP/Helper service as outlined above. Tractive effort limit when exceeding 8 rated powered axles and helping trains not in compliance with DP/Helper train makeup guidelines as follows:

**Manned Helper Controlling Locomotive with Amperage Displayed:**
8 rated powered axles - no restriction
10 rated powered axles - 1,000 amps
12 rated powered axles - 950 amps
14 rated powered axles - 900 amps
16 rated powered axles - 850 amps

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**Manned Helper Controlling Locomotive with Tractive Effort Displayed:**

Limit total tractive effort of AC consist to 100,000 lbs. Total AC locomotive consist tractive effort is determined by multiplying tractive effort indicated on display of controlling locomotive and multiplying by the total number of operative AC locomotives in the consist.

Example: A controlling unit of a two-unit AC locomotive consist should not be allowed to produce more than 50,000 lbs. of tractive effort.

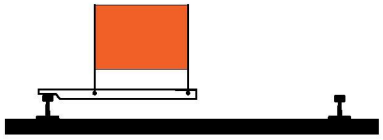
**48. Operations Testing**

BNSF will use the following banners as stop indications when operations testing for compliance where train, engine or on-track equipment movements are required to stop short of the items listed in operating rules GCOR 6.22 (excludes Banner #3), 6.27, 6.28 and MWOR 6.27, 6.28, 6.50:

1. A high visibility red/orange Stop/Obstruction banner displayed square on point to simulate on-track equipment.




2. A high visibility red/orange Stop banner, square or rectangular in shape and approximately 18 by 18 inches in size.



Banner 1 or 2 may be used on any track (main, controlled siding, yard, industry, etc.) for movements governed by GCOR/MWOR 6.27 Restricted Speed, GCOR/MWOR 6.28 Movement on Other Than Main Track, GCOR 6.22 Maintaining Control of Train or Engine (stopping 400 feet short of banners is applicable on a Main Track or controlled siding only), or MWOR 6.50 Movement of On-Track Equipment. These banners will be placed between the rails of the track, and simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banner.

3. Banner 3 may only be used on yard or industry tracks governed by GCOR/MWOR 6.28. Do not use on switches equipped with switch point indicators (GCOR 8.10) or sidings in TWC territory to simulate a switch or derail lined improperly.



High visibility red/orange with horizontal yellow bar Switch Point/Derail Location Stop banners, square or rectangular in shape and approximately 5 inches by 6 inches. These banners may only be used at existing switch point or derail locations, with one banner placed on each rail directly across from one another, to simulate a condition requiring movement to stop. Train, engine and on-track equipment movements must stop short of the banners.

**49. Responsibilities and Certification**

**Engineers**

In the application of the following guidelines, the term "engineer" applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

Before beginning each shift or tour of duty, all engineers must ensure their CFR Part 240 certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before operating a locomotive.

**1. General Responsibilities**

Engineers are responsible for and must maintain their certification.

a. Engineers must be certified in the appropriate class of service to operate a locomotive.
b. Engineers must certify according to federal regulations (49 CFR Part 240) and BNSF Railway certification requirements and programs.
c. Engineers must have their CFR Part 240 electronic certificate accessible, displaying the correct class of service on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.
d. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Engineers must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.
e. Engineers and Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.

     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, engineer must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.
f. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.

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Changes must be reported when:

1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement
2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meets the minimum requirements without any corrective device.

The minimum hearing and vision requirements are:

1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels
2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Engineer Certification Requirements for Operating Locomotives**

Certified engineers may operate locomotives under the following conditions:

a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.

b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hostling purposes.

c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.

d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Before operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.

e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
Note: An RCO Operator must have a minimum of 30 tours of duty as a Certified Remote Control Operator before training a student.

f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed before October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

**3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment**

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency,
- Route familiarization, and
- Special or unique equipment.

**a. Skills Proficiency**

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception: The period is extended to 12 months for RCO if they are also certified as a train service engineer.

**b. Route Familiarization**

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six months:

Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions.

Train service engineers assigned to new routes or who become unqualified on current assigned routes are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or requalify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train service engineer to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and:

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1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

**4. Special Equipment Proficiency**

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment. A certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

**5. Route Familiarization Pilots**

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

a. Train Service Engineers:
   1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
   2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

b. Remote Control Operators:
   1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
   2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Conductors**

In the application of the following guidelines, the term"conductor" applies to a crew member in charge of a train or yard crew and passenger conductor who has received emergency preparedness training.

Before beginning each shift or tour of duty, all conductors must ensure their CFR Part 242 electronic certificate is accessible on their railroad-supplied electronic device (iPad) and valid. If there is any doubt about the validity of their certificate, certified employees must contact a supervisor before performing service as a conductor.

**1. General Responsibilities (applies to any person with certification as a Conductor)**

Any person certified as a Conductor is responsible for and must maintain their certification.

a. Conductors must certify according to federal regulations (49 CFR Part 242) and BNSF Railway certification requirements and programs.

b. Conductors must have their CFR Part 242 electronic certificate accessible on their railroad-supplied electronic device (iPad) and display it at the request of a company manager or FRA representative while on-duty.

c. If a railroad-supplied electronic device (iPad) is temporarily unavailable or a failure occurs, Conductors must print a paper copy of their CFR 240/242 electronic certificate through work force hub or contact their local supervisor for a paper copy until the issue has been resolved.

d. Conductors must report any conviction for a motor vehicle DUI, DWI, or refusal to test by calling the DUI Reporting Hotline at 913-319-3990 within 48 hours of conviction. The following must be reported:
   - Conviction for operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance. This includes DUI, DWI, DWAI convictions, etc.
   - Conviction for refusal to undergo testing when requested by a law enforcement officer, who suspects the individual is operating a motor vehicle while under the influence of alcohol or a controlled substance.
     Note: State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions under this rule.

   If unsure whether a conviction should be reported, conductor must call the DUI Hotline for verification.

   After reporting, employee will receive a written referral to the Employee Assistance Program (EAP). If the referral is not received within three business days of the report of conviction, please contact the Manger II Railroad Training, Safety and Technical Training at 913-317-0203.

e. FRA certified employees must report changes in their hearing and/or vision status before working in certified service to the Medical Department, Fort Worth, TX and the Technical Training Certification Group, Overland Park, KS.
   Changes must be reported when:
   1. Hearing or vision has deteriorated and no longer meets the minimum requirements or now requires a medical device (corrective lenses or hearing aid) to meet the minimum requirement.
   2. Employees with a current hearing aid or corrective lens restriction attain permanent improvement to the extent that their hearing and/or vision now meet the minimum requirements without any corrective device.

   The minimum hearing and vision requirements are:
   1. The average hearing threshold at 500 Hz, 1,000 Hz, and 2,000 Hz in the better ear is less than or equal to 40 decibels

2. Distant vision acuity is 20/40 or better in each eye
3. Field of vision in the horizontal meridian is 70 degrees in each eye
4. Ability to recognize and distinguish between railroad color signals

**2. Maintaining Conductor Route Familiarization**

Certified employees must maintain proficiency as a conductor as it pertains to route familiarization.

**Route Familiarization**
Route familiarization is required in order to perform service as a certified conductor without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by local supervisor, route familiarization is maintained by observing the route biennially based on the calendar year when performing service in any capacity (engineer or trainman). If the route has not been observed once in a 24 month period, qualification will expire at the end of the calendar year. Other methods of maintaining route familiarization may also be available as specified by local supervisor.

Conductors assigned to new routes or who become unqualified on current assigned routes are required to contact their local supervisor who will advise the number of trips required to qualify or re-qualify on that route. If and when a conductor is qualified at the completion of these trips, a supervisor will then authorize the conductor to perform service on that route without a pilot. Route familiarization (and the use of a pilot) is not required when the movement to be made does not include a section of main track with an average grade of greater than 1% over 3 continuous miles and:

1. The maximum distance operated will not exceed one mile, or
2. The maximum authorized timetable speed for any operation on the track being traversed does not exceed 20 MPH, or
3. Movement is entirely on other than Main Track (track governed by GCOR 6.28), or
4. Timetable method of operation requires all movements to proceed at Restricted Speed.

**3. Route Familiarization Pilots**

Employees will be assisted by a pilot if called to perform service as a conductor on a route lacking territory qualification:

a. When a conductor lacks Main Track territory qualification, the pilot must be a certified employee and meets the territory qualification requirements for the Main Track physical characteristics and is not an assigned member of the crew.
b. When a conductor was previously qualified on the Main Track, but qualifications have expired, the pilot can be an assigned member of the crew, other than the locomotive engineer who meets the territorial qualification requirement for Main Track physical characteristics.

If a conductor is called and lacks territorial qualification on other than Main Track and the assistance of a certified employee pilot is not practicable, the conductor must reference an appropriate job aid to satisfy this requirement.

**50. Rail Security Sensitive Material (RSSM) Instructions**

**Chain of Custody Documentation for Rail Security Sensitive Material**

When RSSM shipments in BNSF custody are set out enroute due to mechanical defect, the Resource Operations Center, Fort Worth must be promptly notified at 817-593-7200 or 800-832-5452, Option 3, who will arrange for attendance. The PBX/MRAS radio system may be used for this communication.

Federal regulations require Chain of Custody documentation for Rail Security Sensitive Material (RSSM) in the cases described below.

Rail Security-Sensitive Material (RSSM) includes a shipment of one or more of the categories and quantities listed below:

1. Rail car containing more than 5,000 lbs (2,268 kg) of a Division 1.1, 1.2, or 1.3 (explosive) material.
2. Loaded tank car containing a material poisonous by inhalation, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation, and Division 6.1 liquids assigned to hazard zone A or hazard zone B.
3. Rail car containing a highway route-controlled Class 7 (radioactive) material.

These materials are identified with the Special Car Handling Code “RC”, Restricted Commodity , and /or “RSSM HAZMAT” in the starred box that identifies hazmat shipments.

Except at locations identified by Division General Order, employees must execute and document Positive Transfers of Custody any time a loaded rail car identified by SCHI code “RC” is:

1. Pulled from or spotted to an industry
2. Delivered or received in interchange

Employees can make a positive transfer of custody when:

1. Physically located on site in reasonable proximity to the rail car.
2. Capable of responding to unauthorized access or activity at or near the rail car, including immediately contacting law enforcement or other authorities.
3. They immediately respond to unauthorized access or activity at or near the rail car by contacting law enforcement or other authorities.

This requirement applies both to BNSF employees and representatives of shippers, consignees, and interchange carriers making positive transfers of custody. A positive transfer of custody can take place only if representatives of both companies are present.

When a representative of an interchange carrier is not available where required, “RC” shipments must not be delivered, but may be received if proper paperwork can be obtained per Hazardous Material Instructions Item II. Contact a supervisor for disposition of “RC” shipments when a representative is not available to accept delivery.

If an RSSM shipment is delivered by connecting carrier and left on the interchange transfer unattended, transfer of custody information must show connecting carrier employee’s name as “unattended”.

Any car identified an RSSM shipment will require “Chain of Custody” documentation. Empty “residue” cars will not be identified with this code.

BNSF employees must confer with the customer or interchange road representative to ensure both of their documentation records contain the same information. The chain of custody documentation must include the following:

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1. The first six digits of the employee's ID (e.g. b123456)
2. The date and time of the actual custody transfer.
3. The station at which the "RC" cars are transferred.
4. The person's first and last name to or from whom custody is being transferred.
5. The car initials and numbers.

Completing the chain of custody documentation:

1. TSS, TSS Xpress, or Mobile Train Reporting (MTR) are the preferred methods for documentation.
2. Utilize the Chain of Custody Form on the back of the GTB or work order when TSS, TSS Xpress, or MTR is not available due to work performed on line.
   a. When documenting a written chain of custody, employees must enter the information in TSS or TSS Xpress when access to a computer system becomes available.
   b. If a computer system is not available, utilize the FAX number at top of printed chain of custody form.
   c. Hours of service employees must complete the chain of custody documentation before expiring from duty under the hours of service.
   d. When documenting the chain of custody in printed form, employees must deliver the chain of custody documentation to a relief crew or supervisor for entry in to the system via TSS, TSS Xpress, or fax prior to the completion of the tour of duty when possible. This delivery must also be documented on the chain of custody form.
   e. When not possible to deliver the printed chain of custody documentation to a relief crew or supervisor prior to completion of the tour of duty, employees must enter the chain of custody documentation into the system via TSS, TSS Xpress, or fax when returning for next tour of duty.

Chain of custody procedures when receiving an "RC" freight car in interchange:

1. Loaded "RC" freight cars entering a yard from a foreign carrier must be recorded by the BNSF employee assuming responsibility to receive the "RC" car.
2. Employees should use the new TSS or TSS Xpress function "CUSTODY" to record the person's name from which custody is received along with the date and time of custody interchange. If an advance waybill list is not available, documentation must be done on printed format and entered into TSS or TSS Xpress when available.
3. Division Management will identify the point of contact for acceptance of interchange at each location.
4. A visual security inspection must take place with these cars when practical and must take place before departure from the interchange point. This is typically done during normal freight car safety inspections that are currently performed.

**Locations of High Threat Urban Area (HTUA)**

The following BNSF locations have been designated as HTUAs.

| | | |
|---|---|---|
| Anaheim | Kansas City | Riverside, CA |
| Bakersfield, CA | Los Angeles | San Antonio |
| Bay Area | Memphis | Sacramento |
| Chicago | New Orleans | San Diego |
| Dallas/Ft Worth | Oklahoma City | Seattle |
| Denver | Omaha | St Louis |
| El Paso | Phoenix | Tulsa |
| Houston | Portland | Twin Cities |

HTUA and associated boundaries will be identified by Division General Order.

**Attendance Requirements**

Shipments identified as "RSSM" must be attended at all times while inside an HTUA. RSSM shipments inside an HTUA are considered attended when:

- Located at an industry, when plant personnel have accepted chain of custody.
- Located in a yard which is staffed 24 hours per day.
  - Employees in the yard must be able to routinely view cars physically or by camera.
  - Employees designated as responsible for RSSM cars will be identified by Division General Order and must be able to respond to unauthorized access or activity by contacting law enforcement or other authorities.
- Located within a train with an on-duty crew, authorized employee or representative physically present.

Exceptions to above requirement will be identified by Division General Order.

Employees designated by Division General Order as responsible for location of RSSM cars inside HTUA are required to:

- Contact law enforcement or other authorities to report unauthorized access to RSSM cars.
- Know the placards and designations used to identify RSSM shipments.

Employees responsible for handling RSSM cars within the HTUA are required to:

- Know the contact information outlined by Division General Order for BNSF personnel who are responsible for location of cars within HTUA.
- Know the placards and designations used to identify RSSM shipments.

Note: BNSF Crews operating on foreign railroads must comply with these attendance requirements unless otherwise specified by the foreign railroad's instructions.

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**Appendix A - Track Flagging Examples**

The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by rule.

Yellow and yellow-red flags will be displayed on all main tracks and sidings leading to the track affected. Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In multiple Main Track territory, when a restriction is placed on a crossover, or in single Main Track territory when a restriction is placed on a turnout not affecting the Main Track, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

In situations in multiple Main Track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.

**Single Main Track**

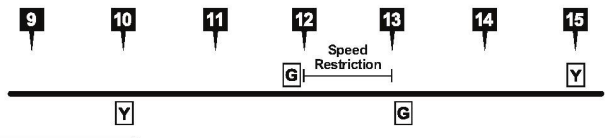



Diagram 1.

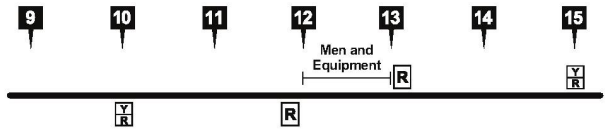



Diagram 2.

**Display of Green Flags with Overlapping Yellow Flags**

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

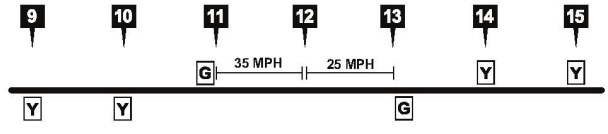



Diagram 3.

**Single Main Track (Sidings at the 2-mile point)**

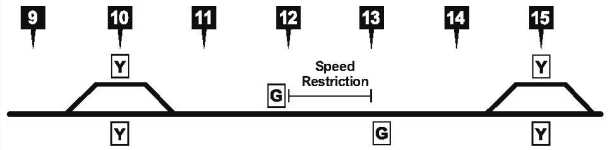



Diagram 4.

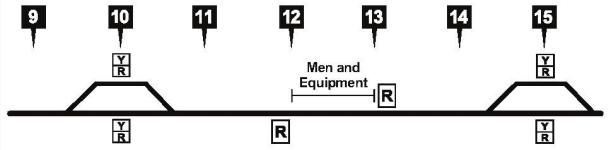



Diagram 5.

**Restriction on Siding**

Speed restrictions on sidings will be short flagged. Location of short flag must be indicated in track bulletin or track warrant.

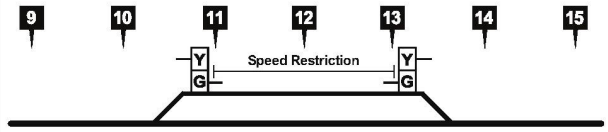



Diagram 6.

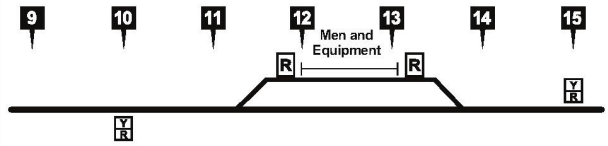



Diagram 7.

Train crews would determine the track affected by the information contained in their track bulletin.

**Speed Restriction on Main Track Where Siding is Adjacent**

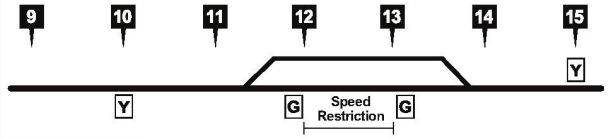



Diagram 8.

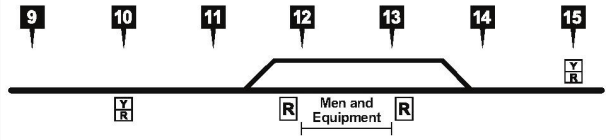



Diagram 9.

Train crews would determine the track affected by the information contained in their track bulletin.

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## Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance

Location of short flag must be indicated in track bulletin or track warrant.

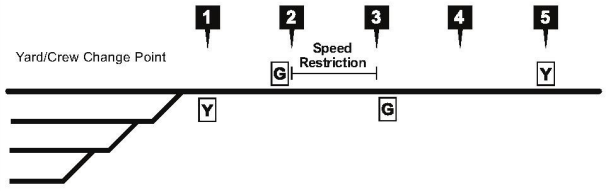



Diagram 10.

## When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

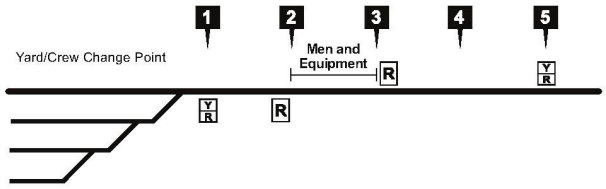



Diagram 11.

## Speed Restriction at Foreign Line Junction

Location of short flag must be indicated in track bulletin or track warrant.

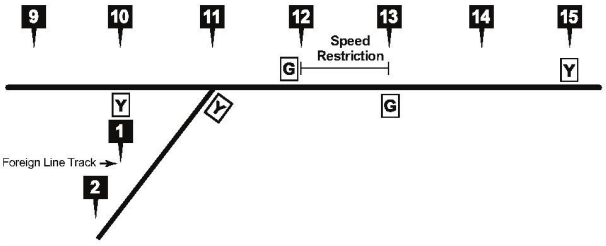



Diagram 12.

## Foreign Line junction Near Men and Equipment

Location of short flag must be indicated in track bulletin or track warrant.

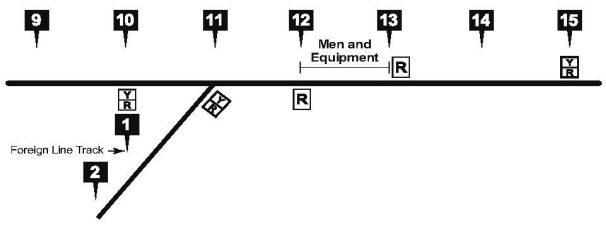



Diagram 13.

## Speed Restriction at BNSF Junction

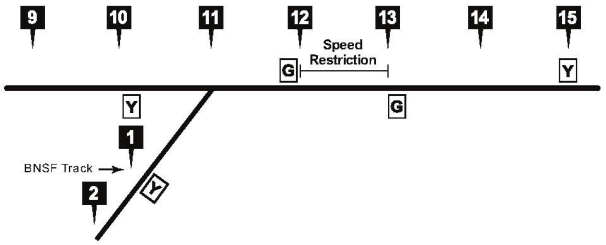



Diagram 14.

## BNSF Junction Near Men and Equipment

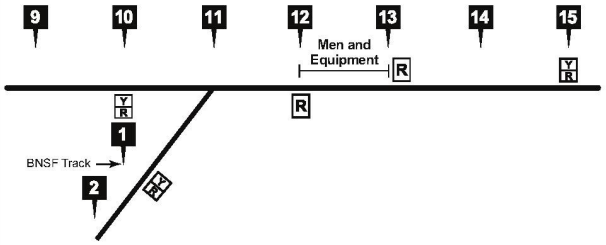



Diagram 15.

## Men and Equipment with Junction and Intervening Switch

Red flags at the limits of Form B and Main Track junctions within the limits.

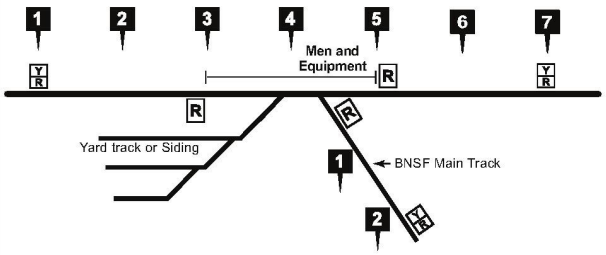



Diagram 16.

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## Speed Restriction Just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

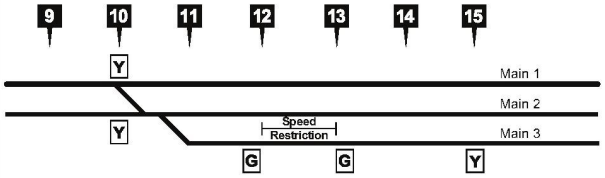



Diagram 17.

## Men and Equipment just Beyond Turnout to Third Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

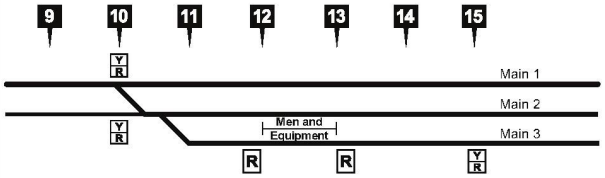



Diagram 18.

## Speed Restriction Just Beyond Turnout to Main 1

Train crews would determine the track affected by the information contained in their track bulletin.

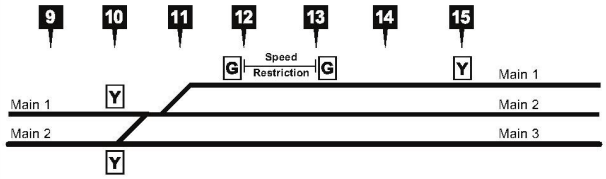



Diagram 19.

## Men and Equipment Just Beyond Turnout to Main 1

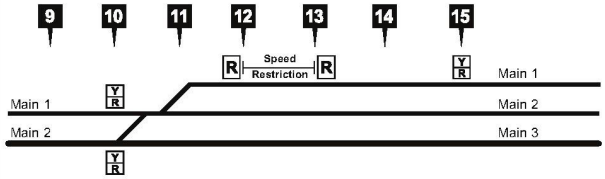



Diagram 20.

## Speed Restriction on Multiple Main Track

Train crews would determine the track affected by the information contained in their track bulletin.

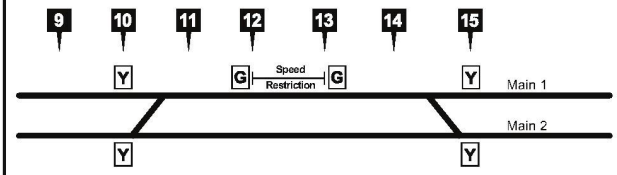



Diagram 21.

## Men and Equipment on Multiple Main Track

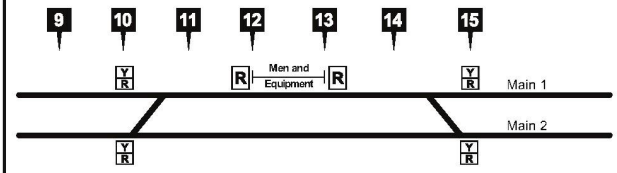



Diagram 22.

## Speed Restriction on Main 1 (CTC Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.

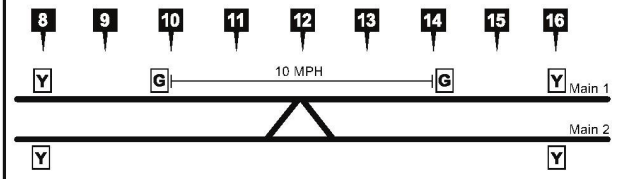



Diagram 23.

## Speed Restriction on Main 1 (CTC and ABS Territory)

Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.

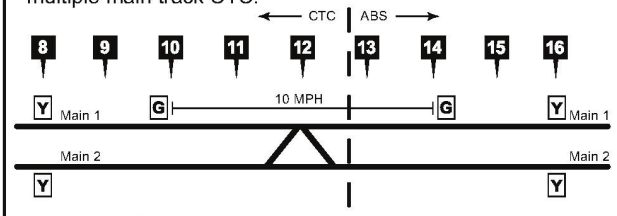



Diagram 24.

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**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.

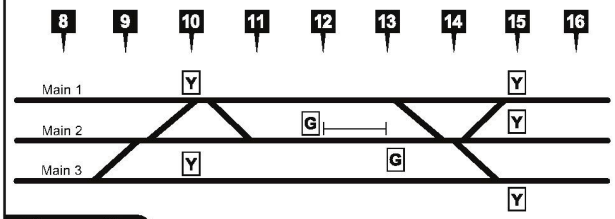



Diagram 25.

**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**

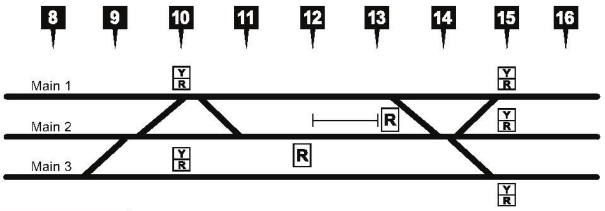
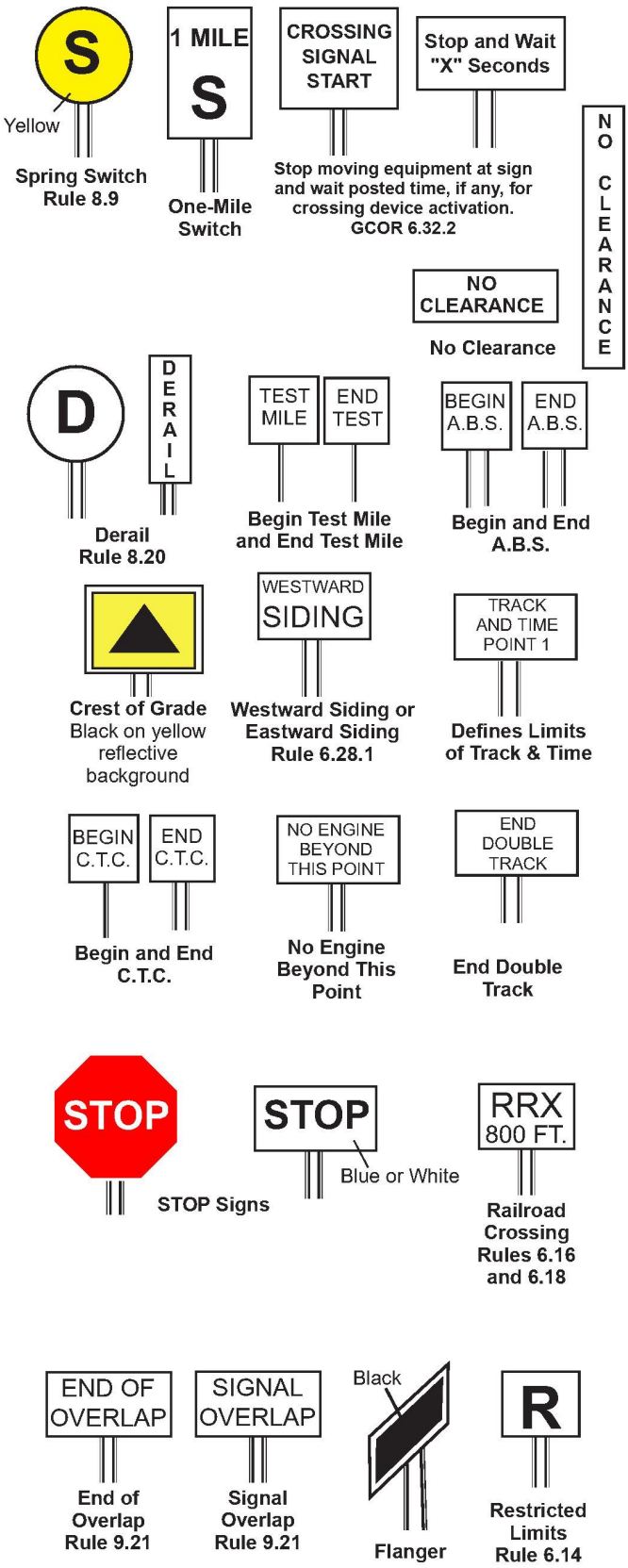
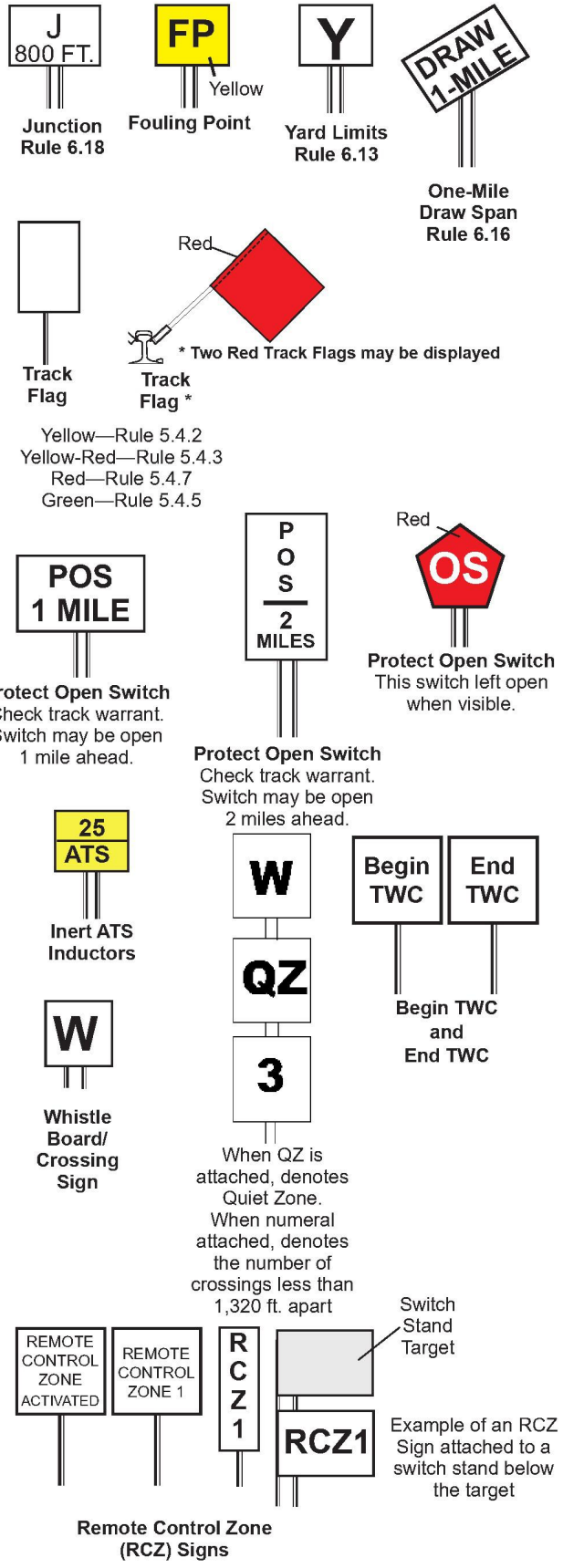



Diagram 26.

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Appendix B - Roadway Signs



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**Appendix C - Division/Subdivision Index**

| Division | Subdivisions |
|---|---|
| California | Alameda Corridor |
| | Bakersfield |
| | Cajon |
| | Harbor |
| | Lucerne Valley |
| | Mojave |
| | Needles |
| | San Bernardino |
| | San Diego |
| | Stockton |
| Chicago | Aurora |
| | Barstow |
| | Beardstown |
| | Brookfield |
| | Chicago |
| | Chillicothe |
| | Des Moines |
| | Marceline |
| | Mendota |
| | Ottumwa |
| | Peoria |
| | St. Croix |
| | Thomas Hill |
| | Yates City |
| Heartland | Afton |
| | Amory |
| | Bayard |
| | Bellwod |
| | Birmingham |
| | Cherokee |
| | Council Bluffs |
| | Creston |
| | Cuba |
| | Fort Scott |
| | Giltner |
| | Hannibal |
| | Napier |
| | Omaha |
| | Ravenna |
| | River |
| | St. Joseph |
| | Thayer North |
| | Thayer South |
| Kansas | Arkansas City |
| | Boise City |
| | Dalhart |
| | Douglass |
| | Emporia |
| | Hereford |
| | La Junta |
| | Panhandle |
| | Raton |
| | Strong City |
| | Topeka |
| | Twin Peaks |
| Montana | Big Sandy |
| | Broadview |
| | Choteau |
| | Circle |
| | Colstrip |
| | Copper City |
| | Crosby |
| | Dickinson |
| | Fairfield |
| Montana (cont'd) | Forsyth |
| | Ft. Benton |
| | Glasgow |
| | Great Falls |
| | Grenora |
| | Helena |
| | Hettinger |
| | Hi Line |
| | Kootenai River |
| | Laurel |
| | Lewistown |
| | Milk River |
| | Mobridge |
| | Niobe |
| | Sarpy Line |
| | Scobey |
| | Sidney Line |
| | Sweet Grass |
| | Valier |
| Northwest | Bellingham |
| | Cherry Point |
| | Coeur d'Alene |
| | Columbia River |
| | Fallbridge |
| | Gateway |
| | Kettle Falls |
| | Lakeside |
| | New Westminster |
| | Oregon Trunk |
| | Scenic |
| | Seattle |
| | Spokane |
| | Stampede |
| | Sumas |
| | Yakima Valley |
| Powder River | Akron |
| | Angora |
| | Beatrice |
| | Big Horn |
| | Black Hills |
| | Brush |
| | Butte |
| | Campbell |
| | Canyon |
| | Casper |
| | Cody |
| | Dutch |
| | Front Range |
| | Golden |
| | Hastings |
| | Lester |
| | Orin |
| | Pikes Peak |
| | Pueblo |
| | Sand Hills |
| | Spanish Peaks |
| | Valley |
| | Wymore |
| Red River | Avard |
| | Bay City |
| | BBRX |
| | Chickasha |
| | Conroe |
| | Creek |
| | DFW |
| | Ft. Worth |
| | Galveston |
| Red River (cont'd) | Houston |
| | Lafayette |
| | Lampasas |
| | Longview |
| | Madill |
| | Mykawa |
| | Plainview |
| | Red River Valley |
| | Red Rock |
| | Silsbee |
| | Slaton |
| | Sooner |
| | Venus |
| | Wichita Falls |
| Southwest | Carlsbad |
| | Clovis |
| | Coronado |
| | Defiance |
| | El Paso |
| | Gallup |
| | Glorieta |
| | Lee Ranch |
| | Mines |
| | Phoenix |
| | Seligman |
| | Springerville |
| Twin Cities | Aberdeen |
| | Allouez |
| | Appleton |
| | Brainerd |
| | Browns Valley |
| | Canton |
| | Casco |
| | Corson |
| | Devils Lake |
| | Drayton |
| | Glasston |
| | Grand Forks |
| | Hanley Falls |
| | Hannah |
| | Hib Tac |
| | Hillsboro |
| | Hinckley |
| | Jamestown |
| | KO |
| | Lakes |
| | Madison |
| | Marshall |
| | Mayville |
| | Midway |
| | Mitchell |
| | Monticello |
| | Moorhead |
| | Morris |
| | Noyes |
| | O'Neill |
| | Prosper |
| | Rolla |
| | St. Paul |
| | Sioux City |
| | Staples |
| | Warwick |
| | Watertown |
| | Wayzata |
| | Westhope |
| | Zap Line |

TOC Home

**Subdivision Index**

| Subdivision | Division |
|---|---|
| Aberdeen | Twin Cities |
| Afton | Heartland |
| Akron | Powder River |
| Alameda Corridor | California |
| Allouez | Twin Cities |
| Amory | Heartland |
| Angora | Powder River |
| Appleton | Twin Cities |
| Arkansas City | Kansas |
| Aurora | Chicago |
| Avard | Red River |
| Bakersfield | California |
| Barstow | Chicago |
| Bay City | Red River |
| Bayard | Heartland |
| BBRX | Red River |
| Beardstown | Chicago |
| Beatrice | Powder River |
| Bellingham | Northwest |
| Bellwood | Heartland |
| Big Horn | Powder River |
| Big Sandy | Montana |
| Birmingham | Heartland |
| Black Hills | Powder River |
| Boise City | Kansas |
| Brainerd | Twin Cities |
| Broadview | Montana |
| Brookfield | Chicago |
| Browns Valley | Twin Cities |
| Brush | Powder River |
| Butte | Powder River |
| Cajon | California |
| Campbell | Powder River |
| Canton | Twin Cities |
| Canyon | Powder River |
| Carlsbad | Southwest |
| Casco | Twin Cities |
| Casper | Powder River |
| Cherokee | Heartland |
| Cherry Point | Northwest |
| Chicago | Chicago |
| Chickasha | Red River |
| Chillicothe | Chicago |
| Choteau | Montana |
| Circle | Montana |
| Clovis | Southwest |
| Cody | Powder River |
| Coeur d'Alene | Northwest |
| Colstrip | Montana |
| Columbia River | Northwest |
| Conroe | Red River |
| Copper City | Montana |
| Coronado | Southwest |
| Corson | Twin Cities |
| Council Bluffs | Heartland |
| Creek | Red River |
| Creston | Heartland |
| Crosby | Montana |
| Cuba | Heartland |
| Dalhart | Kansas |
| Defiance | Southwest |
| Des Moines | Chicago |
| Devils Lake | Twin Cities |
| DFW | Red River |
| Dickinson | Montana |
| Douglass | Kansas |
| Drayton | Twin Cities |
| Dutch | Powder River |
| El Paso | Southwest |
| Emporia | Kansas |
| Fallbridge | Northwest |
| Fairfield | Montana |
| Forsyth | Montana |
| Fort Scott | Heartland |
| Front Range | Powder River |
| Ft. Benton | Montana |
| Ft. Worth | Red River |
| Gallup | Southwest |
| Galveston | Red River |
| Gateway | Northwest |
| Giltner | Heartland |
| Glasgow | Montana |
| Glasston | Twin Cities |
| Glorieta | Southwest |
| Golden | Powder River |
| Grand Forks | Twin Cities |
| Great Falls | Montana |
| Grenora | Montana |
| Hanley Falls | Twin Cities |
| Hannah | Twin Cities |
| Hannibal | Heartland |
| Harbor | California |
| Hastings | Powder River |
| Helena | Montana |
| Hereford | Kansas |
| Hettinger | Montana |
| Hi Line | Montana |
| Hib Tac | Twin Cities |
| Hillsboro | Twin Cities |
| Hinckley | Twin Cities |
| Houston | Red River |
| Jamestown | Twin Cities |
| Kettle Falls | Northwest |
| KO | Twin Cities |
| Kootenai River | Montana |
| La Junta | Kansas |
| Lafayette | Red River |
| Lakes | Twin Cities |
| Lakeside | Northwest |
| Lampasas | Red River |
| Laurel | Montana |
| Lee Ranch | Southwest |
| Lester | Powder River |
| Lewistown | Montana |
| Longview | Red River |
| Lucerne Valley | California |
| Madill | Red River |
| Madison | Twin Cities |
| Marceline | Chicago |
| Marshall | Twin Cities |
| Mayville | Twin Cities |
| Mendota | Chicago |
| Midway | Twin Cities |
| Milk River | Montana |
| Mines | Southwest |
| Mitchell | Twin Cities |
| Mobridge | Montana |
| Mojave | California |
| Monticello | Twin Cities |
| Moorhead | Twin Cities |
| Morris | Twin Cities |
| Mykawa | Red River |
| Napier | Heartland |
| Needles | California |
| New Westminster | Northwest |
| Niobe | Montana |
| Noyes | Twin Cities |
| Omaha | Heartland |
| O'Neill | Twin Cities |
| Oregon Trunk | Northwest |
| Orin | Powder River |
| Ottumwa | Chicago |
| Panhandle | Kansas |
| Peoria | Chicago |
| Phoenix | Southwest |
| Pikes Peak | Powder River |
| Plainview | Red River |
| Prosper | Twin Cities |
| Pueblo | Powder River |
| Raton | Kansas |
| Ravenna | Heartland |
| Red River Valley | Red River |
| Red Rock | Red River |
| River | Heartland |
| Rolla | Twin Cities |
| San Bernardino | California |
| San Diego | California |
| Sand Hills | Powder River |
| Sarpy Line | Montana |
| Scenic | Northwest |
| Scobey | Montana |
| Seattle | Northwest |
| Seligman | Southwest |
| Sidney Line | Montana |
| Silsbee | Red River |
| Sioux City | Twin Cities |
| Slaton | Red River |
| Sooner | Red River |
| Spanish Peaks | Powder River |
| Spokane | Northwest |
| Springerville | Southwest |
| St. Croix | Chicago |
| St. Joseph | Heartland |
| St. Paul | Twin Cities |
| Stampede | Northwest |
| Staples | Twin Cities |
| Stockton | California |
| Strong City | Kansas |
| Sumas | Northwest |
| Sweet Grass | Montana |
| Thayer North | Heartland |
| Thayer South | Heartland |
| Thomas Hill | Chicago |
| Topeka | Kansas |
| Twin Peaks | Kansas |
| Valier | Montana |
| Valley | Powder River |
| Venus | Red River |
| Warwick | Twin Cities |
| Watertown | Twin Cities |
| Wayzata | Twin Cities |
| Westhope | Twin Cities |
| Wichita Falls | Red River |
| Wymore | Powder River |
| Yakima Valley | Northwest |
| Yates City | Chicago |
| Zap Line | Twin Cities |

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE

# Reference Information

**Speed Tables**

| SPEED TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour | Time Per Mile | | Miles Per Hour |
| Min. | Sec. | | Min. | Sec. | | Min. | Sec. | |
| - | 36 | 100 | - | 58 | 62.1 | 1 | 40 | 36.0 |
| - | 37 | 97.3 | - | 59 | 61.0 | 1 | 42 | 35.3 |
| - | 38 | 94.7 | 1 | - | 60.0 | 1 | 44 | 34.6 |
| - | 39 | 92.3 | 1 | 02 | 58.0 | 1 | 46 | 34.0 |
| - | 40 | 90.0 | 1 | 04 | 56.2 | 1 | 48 | 33.3 |
| - | 41 | 87.8 | 1 | 06 | 54.5 | 1 | 50 | 32.7 |
| - | 42 | 85.7 | 1 | 08 | 52.9 | 1 | 52 | 32.1 |
| - | 43 | 83.7 | 1 | 10 | 51.4 | 1 | 54 | 31.6 |
| - | 44 | 81.8 | 1 | 12 | 50.0 | 1 | 56 | 31.0 |
| - | 45 | 80.0 | 1 | 14 | 48.6 | 1 | 58 | 30.5 |
| - | 46 | 78.3 | 1 | 16 | 47.4 | 2 | - | 30.0 |
| - | 47 | 76.6 | 1 | 18 | 46.1 | 2 | 05 | 28.8 |
| - | 48 | 75.0 | 1 | 20 | 45.0 | 2 | 10 | 27.7 |
| - | 49 | 73.5 | 1 | 22 | 43.9 | 2 | 15 | 26.7 |
| - | 50 | 72.0 | 1 | 24 | 42.9 | 2 | 30 | 24.0 |
| - | 51 | 70.6 | 1 | 26 | 41.9 | 2 | 45 | 21.8 |
| - | 52 | 69.2 | 1 | 28 | 40.9 | 3 | - | 20.0 |
| - | 53 | 67.9 | 1 | 30 | 40.0 | 3 | 30 | 17.1 |
| - | 54 | 66.6 | 1 | 32 | 39.1 | 4 | - | 15.0 |
| - | 55 | 65.5 | 1 | 34 | 38.3 | 5 | - | 12.0 |
| - | 56 | 64.2 | 1 | 36 | 37.5 | 6 | - | 10.0 |
| - | 57 | 63.2 | 1 | 38 | 36.8 | 12 | - | 5.0 |

| FEET | TENTHS OF A MILE |
|---|---|
| 528 | .1 |
| 1,056 | .2 |
| 1,584 | .3 |
| 2,112 | .4 |
| 2,640 | .5 |
| 3,168 | .6 |
| 3,696 | .7 |
| 4,224 | .8 |
| 4,752 | .9 |

# TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

To assist in determinig where to start sounding the whistle as described in Whistle Signal 7, use the following:
At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

| Train Speed | Delay to Sound Whistle |
|---|---|
| 40 MPH | 3 seconds |
| 35 MPH | 6 seconds |
| 30 MPH | 10 seconds |
| 25 MPH | 16 seconds |
| 20 MPH | 25 seconds |
| 15 MPH | 40 seconds |
| 10 MPH | 1 minute 10 seconds |

## BNSF Railway Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment,** including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force,** including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

This version contains the following updated and added pages:
**August 4, 2021:** 23.
**September 1, 2021:** 44.
**November 4, 2021:** 10.
**December 1, 2021:** 14.
**January 1, 2022:** 15, 16, 17, 17a(added), 17b(added), 18, 19, 35, 36, 41.
**May 1, 2022:** 34.
**June 3, 2022:** Title page, 3, 50, 51, 52, 53, 54, 55, 56, 57, 58, 58a (added), 58b (added).

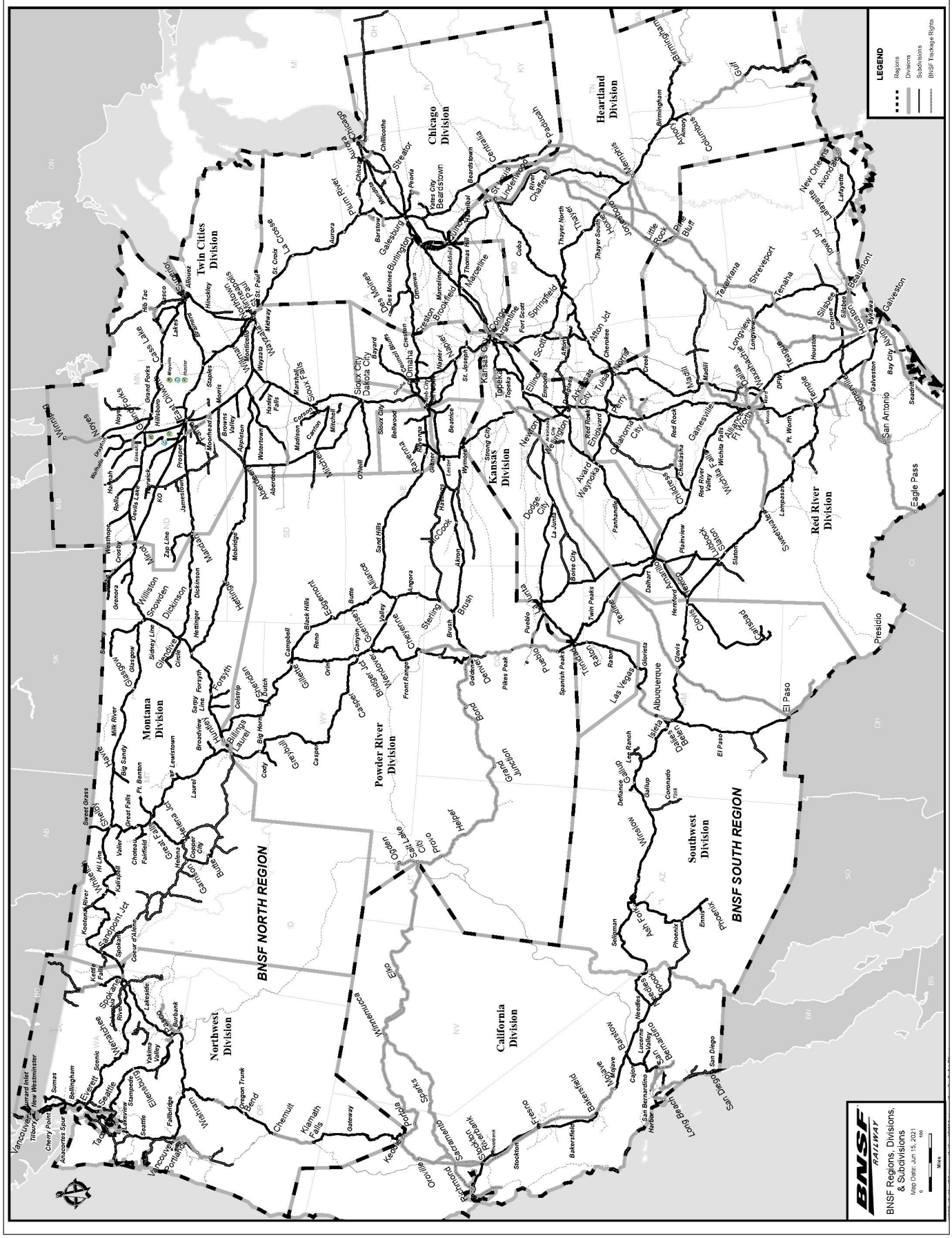
BNSF RAILWAY

# System Special Instructions

## All Subdivisions No. 2

In Effect at 0800
Central, Mountain and Pacific
Continental Time
**August 4, 2021**
(Including updates through
June 3, 2022)

TOC Home


LEGEND
Regions
Divisions
Subdivisions
BNSF Trackage Rights
BNSF NORTH REGION
BNSF SOUTH REGION
Northwest Division
Montana Division
Twin Cities Division
Chicago Division
Powder River Division
Kansas Division
Heartland Division
California Division
Southwest Division
Red River Division
BNSF RAILWAY
BNSF Regions, Divisions, & Subdivisions
Map Date: Jun 15, 2021
Miles

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In timetable individual subdivision special instructions, the number at the bottom of the station table column entitled "Miles to Next Station" denotes total miles on the subdivision.

## 1. Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars. Refer to 1(B) regarding maximum authorized speed of engines (locomotives).

Amtrak trains operating in Cascade service may observe Talgo speeds. The consist must be entirely Horizon and/ or Amfleet Single Level Passenger Equipment. If the PTC Onboard Consist does not reflect the correct train type, crews may modify their consist to "Tilt" Train Type.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

| | MPH |
|---|---|
| Freight trains under 100 TOB | 60 |
| Freight trains 100 TOB and over | 45 |
| Freight trains handling empty cars | 55 |
| Exception: Intermodal Equipment, see SSI 1(C) | |
| Empty coal trains (if train list indicates no speed restricted equipment) | 60 |
| Key trains | 50 |
| Solid consist of military equipment | 55 |
| Trains with welded rail loaded in open end gondolas | 45 |
| Non-signaled territory | 49 |
| Against the current of traffic | 49 |
| Through turnouts | 10 |
| Tracks governed by GCOR / MWOR 6.28 | 10 |
| Tracks governed by GCOR / MWOR 6.28 where timetable indicates a speed greater than 20 MPH | 20 HER |
| Within Mechanical Department limits | 5 |
| Movements on or off turntables and droptables | 1 |

Foreign railroad locomotives - Speed restrictions posted inside the locomotive cab of foreign railroad locomotives which are less than that listed above only apply when locomotive is utilized as a lead, controlling locomotive.

| Equipment | Main | Branch |
|---|---|---|
| Side dump ballast cars, BNSF car kind YHA and YHH, loaded | 45 | 45 |
| AMTK 1400-1569 (material handling cars) | 60 | 60 |
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 | 45 | 45 |
| Boeing cars, loaded, BNSF 800100-800135, MTTX 978384, 978576, 978596, 978644, 978649, 978660, 978781, 979162, 980855, 981187, 981218 | 45 | 45 |
| Clay cars, RARW 3801-4199 | 45 | 45 |
| Flatcars, empty, NP 580400-580739 | 50 | 50 |
| Flatcars, empty, bulkhead wallboard: BN 616475-616674, CS 616375-616474 DJTX 9300-9398, SOU 115250-115274 | 45 | 45 |
| Flatcars, empty, bulkhead, Picked up enroute and not on conductor's wheel report or work order | 45 | 45 |
| Flatcars, empty or loaded, OTTX 93561, 97852, 97861, 97914, 97920 | 45 | 45 |
| Flatcars, loaded with track panels, ATSF 190298, 209144, 209149 | 35 | 35 |
| Gondolas, empty, KCS 801011-802930, CR 576026-579245 | 45 | 45 |
| Gondolas, empty, Picked up enroute and not on conductor's wheel report or work order | 50 | 50 |
| Gondolas, empty or loaded, PC 598500-598999 CR 598500-598990, SP 345000-345699 | 45 | 45 |
| Herzog clip cars, HZGX 153, 154, 155 | 50 | 50 |
| Herzog MPM Machines, designated to be placed next ahead of caboose or at rear of cabooseless trains. | 55 | 55 |
| Hopper cars, covered, empty, (unless no speed restriction is indicated by train documentation) ASGX 1-50, BCAX 50-149, CGLX 4200-4249, CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904, CRDX 20100-20199, CRDX 20200-20209, CRDX 20300-20324, CRDX 20525-20724, CSXT 242000-242299, DME 29000-29324, DJLX 97300-97319, FLOX 3200-3241, FLOX 983400-983414, GACX 3000-3139, GACX 3150-3196, GACX 3202-3359, GACX 3486-3510, GACX 7959-8008, GCCX 55000-55099, LCEX 801-820, LCEX 824-898, NAHX 21000-21054, NAHX 29700-29867, NAHX 320000-320399, NCUX 20001-20050, NCUX 20106-20130, NRLX 32500-32605, NRLX 32706-32725, NVCX 9500-9619, NS 294220-294319, RGCX 650-899, RGCX 902-1067, RGCX 1069-1142, RGCX 1183-1222, SDWX 9700-9919, SDWX 10000-10333, SDWX 11000, SHPX 432118-432137, SHPX 432057-432116, WW 7001-7300 | 45 | 45 |
| Hopper cars, empty, WFAX 84654-84700 TUGX 36001-36125 | 45 | 45 |

TOC Home

| Equipment | Main | Branch |
|---|---|---|
| Loram, 400 and 300 series and Harsco rail grinder, traveling (not in work mode) as a train on its own power with a conductor or engineer pilot | 50 | 50 |
| Loram, 400 series and Harsco rail grinder, when controlling movement from the rear control cab in the lead. | 50 | 50 |
| Loram, 300 series rail grinder, when controlling movement from rear control cab in the lead | 40 | 40 |
| Refer to manufacturer's maximum operating speeds when operating on descending grades. | | |
| Loram, LMIX 409, 410, 412, 414, 415, 417, KMUX 110, 750<br>Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars.<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 50 | 45 |
| Loram, LMIX 203, 204<br>No shoving movements are to be made with the above Loram equipment in a train consist. | 55 | 55 |
| Ore cars, empty, 35 ft., OLB 1000-1099 | 50 | 50 |
| Ore cars, loaded, 35 ft., OLB 1000-1099 | 45 | 45 |
| P811, BNSF 922999 | 50 | 50 |
| Plasser machines,PACX 293, 2630, 2645, 3024,4656, 4657, 4774, 4775 | 45 | 45 |
| Plasser THS 2000, tie gang consist | 30 | 30 |
| Plasser 08 & 09 Tampers, PTS 61, 62 & 90 Stabilizers, BDS 100 & 200 Ballast machines, MFS40 & 60 cars and ULS3000 conveyor cars (traveling in a train or under own power with a conductor or engineer pilot) | 50 | 50 |
| Ribbon rail cars, empty | 45 | 45 |
| Ribbon rail cars, loaded | 35 | 25 |
| Ribbon rail loading and unloading cars | 45 | 45 |
| Roadrailer equipment (empty or loaded) | 60 | 60 |
| Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader handled in trains | 30 | 25 |
| Exception: Locomotive cranes/pile drivers with booms removed and secured to a leads car with the counterweight properly secured to the locomotive crane/pile drive car body, billed as empty car. | 45 | 25 |
| Exception: Jordan spreader, BNSF 939800 - 939804 | 50 | 50 |
| Trains and engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.<br>Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by roadmaster or covered by specific instructions. | | |

| Equipment | Main | Branch |
|---|---|---|
| Scale test cars<br>Exception: cars listed below have a minimum gross weight of 100,000 lbs. and may move in any position in the train and at maximum authorized speed for which the train is qualified. BN 979020-979024, BN 979026, BNSF 979019, FGWX 100000-700000, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, WWBX 199917-199919 | 35 | 25 |
| Schnabel type cars, empty. Cars must be handled on or near the rear of trains not exceeding 100 cars in length, must not be handled in trains requiring pusher service and must not be humped or switched with motive power detached | 45 | 45 |
| Exception: GEGX 21154, GEGX 21155, GEX 80000, GEX 80002, MAMX 1001 | 40 | 40 |
| Exception: KRL 3600, KRL 3601, GEX 80003, HEPX 200, PTDX 202 | 25 | 25 |
| Tank cars, ACFX 17451-17495, NATX 10841-10865 | 45 | 45 |
| Tank cars, DVLX 4001-4190, UTLX 76517, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736-76738, 76742-76745, 76747, 76748, 76750, 76751, 78256-78269, 78272, 78274, 78278, 78281, 78285, 78287-78293, 78326, 78328-78333, 78336-78340, 78343, 78344, 78347, 78348, 78350. 78353 | 40 | 40 |
| Tank cars, empty, CORX | 50 | 50 |
| Tank cars, loaded, CELX 6400-6455, 10400-10443 (must not be handled nearer than 6 cars from locomotive when loaded) | 45 | 45 |
| Wedge plow or dozer, hauled in tow | 35 | 25 |

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH and 21 MPH can cause derailments due to harmonic rocking of cars. Where specified by timetable individual subdivision special instructions or general order, the following restrictions apply when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains consisting entirely of empty equipment, which cannot maintain a minimum speed of 21 MPH, must reduce speed to 13 MPH or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Passenger Trains/Engines**

| | MPH |
|---|---|
| Amtrak | 90* |
| Metrolink | 90* |
| Metra | 79* |
| Sounder (Sound Transit) | 79* |
| Northstar | 79* |
| All other classes | 70 |

Exception:
When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, maximum speed is 45 MPH.

* Engine without cars must not exceed 70 MPH.

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**1(C). Multiplatform Equipment**

**Intermodal Equipment**

| TSS Car Kind Codes | Car Description | Units or Segments | Axle Count | Control Valves and/or Car Count | Trailers=T Containers=C Either=T/C |
|---|---|---|---|---|---|
| Articulated cars | | | | | |
| QY | Doublestack | 5 | 12 | 3 | C |
| QV | Doublestack | 3 | 8 | 2 | T/C |
| QM | Spine Car | 3 | 8 | 2 | T/C |
| QC | Spine Car | 3 | 8 | 2 | T |
| QO | Spine Car | 5 | 12 | 3 | T/C |
| Q5 | Spine Car | 5 | 12 | 3 | C |
| QE | Spine Car | 5 | 12 | 3 | T |
| FM | Twin Flat | 2 | 6 | 2 | C |
| M2D M3D M2F M3F | Automax | 2 | 6 | 2 | |
| Non-Articulated Cars | | | | | |
| QW | Doublestack | 3 | 12 | 3 | T/C |
| QX | Doublestack | 4 | 16 | 4 | T/C |
| QT | Doublestack | 5 | 20 | 5 | C |
| QB QD | Twin Flats | 2 | 8 | 2 | T |
| QL | Twin Flats | 2 | 8 | 2 | T/C |
| Single Unit Intermodal Cars | | | | | |
| QU | Doublestack | 1 | 4 | 1 | T/C |
| QK | Doublestack | 1 | 4 | 1 | T/C |

**Car Kind Codes for Intermodal Equipment**

In addition to the intermodal equipment listed above, all car kind codes beginning with the letter M, P or Q are considered intermodal equipment. On cars shown above, only the first two characters are required to identify car type, with the exception of those identifying Automax cars. However, train lists may use more than two characters to identify a given car type.

**Definitions of Multiple-Unit Equipment**

*Articulated*—Refers to cars with multiple units (segments) that are connected with articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**

Tons per operative brake on cars above is determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.

(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.

(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**

In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Cabooses and any car loaded with container chassis are considered loads for the purpose of the rule.

Exception: Intermodal equipment with empty units/platforms are restricted to 55 MPH only if not equipped with constant contact side bearings (CCSB). BNSF train documentation now provides guidance on this empty unit restriction as it applies to the intermodal cars listed above. When handling all intermodal equipment, train documentation will provide one of three messages as follows:

1. Train does not contain any intermodal equipment with empty units without CCSB.
2. Train is restricted to 55 MPH due to intermodal equipment with empty units without CCSB.
3. Train may be restricted to 55 MPH due to possibility of intermodal equipment having empty units without CCSB - Inspect to Verify.

In the event message 3 above is on train documentation, if train is otherwise authorized to exceed 55 MPH, a visual inspection must be made to determine the loaded status of units/platforms on car(s) listed. The inspection results must be noted on train list for relieving crews' guidance on train's maximum authorized speed.

When adding intermodal equipment enroute, train documentation may not have been generated. When this occurs, consider such car(s) to be restricted to 55 MPH if any units/platforms are empty. Subsequent train lists produced for crews after a pick up enroute will provide speed information on cars based on if CCSB-equipped.

This does not apply to trains that are otherwise restricted to 55 MPH or less such as when handling cars not listed above that are empty, other equipment speed restrictions, fuel conservation speed limits, etc.

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

Cajon Sub..... MP 56.6 to MP 80, all tracks
Raton Sub ..... MP 639 to MP 660
Glorieta Sub ..... MP 775 to MP 810
Glorieta Sub ..... MP 818 to MP 842
Pikes Peak Sub ..... MP 52 to MP 66
Hi Line Sub..... MP 1151 to MP 1166, both tracks
Midway Sub..... MP 0.5 to MP 2, both tracks
Phoenix Sub ..... MP 381.0 to MP 402.0
St. Paul Sub ..... MP 430 to MP 5, both tracks
Scenic Sub ..... MP 1694.5 to MP 1731.3
Stampede Sub..... MP 41.0 to MP 58.5
San Diego Sub ..... MP 250 to MP 255 (NCTC)
Gateway Sub..... MP 178.0 to MP 188.0

**On UP Railroad:**

Mojave Sub ..... MP 331.3 to MP 381.3
Moffat Tunnel Sub ..... MP 19 to MP 50
Moffat Tunnel Sub ..... MP 58.1 to MP 61.7
Provo Sub..... MP 630.5 to MP 638.1
Provo Sub..... MP 652 to MP 682
Roseville Sub ..... MP 115 to MP 170
Roseville Sub ..... MP 195 to MP 210

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## 2(B). Locomotive Data Tables

| DC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| SW1 | 4 | 0 | 600 | 99 |
| SW10 | 4 | 0 | 1,000 | 125 |
| NW10 | 4 | 0 | 1,200 | 126 |
| SW12 | 4 | 0 | 1,200 | 125 |
| SW15 | 4 | 0 | 1,500 | 131 |
| MK1200G | 4 | 0 | 1,200 | 125 |
| SWBL-W | 4 | 0 | 1,500 | 131 |
| GP7 | 4 | 0 | 1,500 | 125 |
| GP9 | 4 | 4* | 1,750 | 130 |
| GP9B | 4 | 0 | 1,750 | 124 |
| GP10 | 4 | 0 | 1,800 | 130 |
| GP15, GP15-1 | 4 | 0 | 1,500 | 129 |
| GP18 | 4 | 0 | 1,800 | 124 |
| GP20 | 4 | 4BT | 2,000 | 131 |
| GP28 M/P | 4 | 4BF | 1,800 | 130 |
| GP30 | 4 | 4BT | 2,500 | 131 |
| GP35 | 4 | 4BT | 2,500 | 133 |
| GP38,GP38-2 | 4 | 4ET | 2,000 | 143 |
| GP39, GP39-2 | 4 | 4EF# | 2,300 | 135 |
| GP40 M,E,-2 | 4 | 4BF | 3,000 | 139 |
| GP40X | 4 | 4BF | 3,000 | 139 |
| GP50 | 4 | 4EF | 3,600 | 138 |
| GP53, GP53L | 4 | 4EF | 3,000 | 136 |
| GP60M | 5+ | 5EF+ | 3,800 | 137 |
| GP60B | 5+ | 5EF+ | 3,800 | 135 |
| B23-7 | 4 | 4EF | 2,300 | 134 |
| B30-7A | 4 | 4BF | 3,000 | 138 |
| B36-B-7 | 6+ | 4EF | 3,600 | 140 |
| B-39-8 | 6+ | 5EF+ | 3,900 | 140 |
| B-40-8 | 6+ | 5EF+ | 4,000 | 142 |
| SD7 | 6 | 5BF+ | 1,500 | 157 |
| SD9 | 6 | 5 * | 1,750 | 184 |
| SD18 | 6 | 0 | 1,800 | 175 |
| SD35 | 6 | 5 * # | 2,500 | 195 |
| SD38-2 | 6 | 6 * # | 2,000 | 184 |
| SC38P | 6 | 6BF | 2,000 | 196 |
| TEBC6 | 6 | 6B | 2,000 | 194 |
| SD39 | 6 | 6EF | 2,500 | 195 |
| SD40, SD40-2 | 6 | 6EF * # | 3,000 | 196 |
| SD45, SD45-2 | 6 | 6ET | 3,600 | 198 |
| SD50 | 6 | 6EF | 3,600 | 194 |
| SD60, SD60M | 7+ | 8EF+ | 3,800 | 201 |
| SD70M | 7+ | 9EF+ | 4,000 | 200 |
| SD75M | 7+ | 9EF+ | 4,300 | 197 |
| C30-7 | 6 | 6EF# | 3,000 | 209 |
| SF30C | 6 | 6EF | 3,000 | 160 |
| C36-7 | 6 | 6EF | 3,600 | 197 |
| C40-8 | 7+ | 8EF+ | 4,135 | 197 |
| C44-9W | 8+ | 8EF+ | 4,400 | 196/210 |
| ES44DC | 8+ | 8EF+ | 4,400 | 210 |

| AC Traction Locomotives | | | | |
|---|---|---|---|---|
| Model | Rated Powered Axles | Rated Dynamic Brake Axles | Horsepower | Weight (Tons) |
| **C44AC[1] AC4400CW[1] AC4400EV[1] CW44AC[1]** | 8+ | 10EF+ | 4,400 | 210 |
| 1TM c/o | 8+ | 8EF+ | | |
| 2TM c/o | 6 | 6EF | | |
| 3TM c/o | 4 | 5EF | | |
| 4TM c/o | 3 | 3EF | | |
| 5TM c/o | 2 | 2EF | | |
| **C60[1] C60AC[1]** | 8+ | 12EF+ | 6,000 | 210 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **ES44AC[1]** | 8+ | 10EF+ | 4,400 | 208 |
| 1TM c/o | 8+ | 10EF+ | | |
| 2TM c/o | 8+ | 8EF+ | | |
| 3TM c/o | 6 | 6EF | | |
| 4TM c/o | 4 | 4EF | | |
| 5TM c/o | 2 | 2EF | | |
| **SD70MAC** | 8+ | 8EF | 4,000 | 208 |
| 1 Truck c/o | 4 | 5EF | | |
| **SD70ACE** | 8+ | 10EF+ | 4,300 | 208 |
| 1TM c/o | 6 | 6EF | | |
| **SD70ACE4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD70ACT4(1)** | 8+ | 8EF+ | 4300 | 210 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **SD80MAC** | 8+ | 10EF | 5,000 | 210 |
| 1 Truck c/o | 5+ | 5EF | | |
| **SD90/43MAC** | 8+ | 10EF | 4,300 | 208 |
| 1 Truck c/o | 4 | 6EF | | |
| **SD90MAC** | 8+ | 11EF | 6,000 | 208 |
| 1 Truck c/o | 6 | 6EF | | |
| **ES44C4[1] AC44C4M[1]** | 8+ | 8EF+ | 4,400 | 208 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |
| **ET44C4[1]** | 8+ | 8EF+ | 4,400 | 214 |
| 1 TM c/o | 6 | 6EF | | |
| 2 TM c/o | 4 | 4EF | | |
| 3 TM c/o | 2 | 2EF | | |

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Note: Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.

| | |
|---|---|
| + | Power or dynamic brake axle rating exceeds actual axles |
| ¹ | GE/EMD Locomotives (C44AC, C60AC, SD70ACT4, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives. |
| % | PTC Equipped |
| * | May not be equipped with dynamic brakes |
| # | May be equipped with standard range dynamic brakes |
| E | Extended dynamic brake range |
| B | Basic dynamic brake range |
| F | Flat dynamic brake system |
| T | Tapered dynamic brake system |

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in timetable individual subdivision special instructions.

| |
|---|
| Balfour Beatty machines, RKCX 103, 104, 105, 106, 467, 476, 3005 |
| Dozers |
| Empty ribbon rail cars (if moving with no train list or if identified as “Rear End Only” on train list) |
| Herzog clip cars: HZGX 153, 154, 155 |
| Herzog MPM:<br>HZGX 164, 165, 167, 174, 1740, 176, 1760, 178, 1780, 179, 1790, 180, 1800<br>HZGX 189, 1890, 18900, 192, 1920, 19200, 193, 1930, 19300, 194, 1940, 19400, 195, 1950, 19500, 199, 1990, 19900, 200, 2000, 20000, 205, 2050, 20500, 206, 2060, 20600, 207, 2070, 20700 |
| Jordan spreaders |
| Locomotive cranes |
| Loram, LMIX 203, 204, 409, 410, 412, 414, 415, 417, KMUX 110, 750 |
| Loram, LMIX 418, when moving coupled with MW tool cars, must remain coupled to such cars |
| Outfit cars (Exception: Univans may be placed anywhere in the train.) |
| P811, BNSF 922999 |
| Pile drivers |
| Plasser machines, PACX 293, 2630, 2645, 3024, 4656, 4657, 4774, 4775 |
| Plasser THS 2000, tie gang consist |
| Rear end only cars |
| Ribbon rail loading and unloading cars |
| Rotary snowplows |
| Wedge plows |

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

Locomotive cranes/pile drivers, wrecking derricks or similar equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by Roadmaster or covered by specific instructions. This equipment must not be humped, cut off in motion or struck by any car moving under its own momentum.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Hand brakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant).
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the timetable individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks as outlined in SSI Item 5.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines (including foreign line cars) having:

- elevated hoses for dump door air line,
  or
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level),

must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

PUBLIC VERSION – REDACTED – TO BE PLACED ON PUBLIC FILE



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**3(D). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(E). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locking devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

A. If the adjacent track is a Main Track, controlled siding or other track where CTC is in effect, authority must be obtained as prescribed by MWOR 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR 6.19 to control movement by the work area.
B. If the adjacent track is a track governed by GCOR/MWOR 6.28 (i.e. yard, industry track, etc.), movement must not be permitted to pass air dump cars which are being charged or being unloaded.

**3(F). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

A. Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
B. Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
C. Cars with defective couplers may be transported to repair facilities behind caboose.
D. A crew transport train consisting of no more than two cabooses positioned between two locomotives may be operated during inclement weather conditions. The lead locomotive must be the controlling locomotive, with trailing locomotive isolated.

**3(G). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 MPH through other than Main Track turnouts.

**3(H). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(I). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid-drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**3(J). Herzog Articulated Equipment**

Herzog articulated equipment (all-purpose machines) are restricted as rear end only because drawbar connection between Herzog locomotive and cars does not have vertical restraint.

Switching Restrictions: All Herzog equipment must not be humped or handled with other freight cars during switching operations. This equipment must be cut off or set over so that remaining cars can be switched.

**3(K). Herzog Rail Unloading Machine**

A Herzog Rail Unloading Machine (RUM) may be coupled to a work train for rail unloading purposes only. The train must remain stationary while the RUM couples to the train in self-propelled mode. The following restrictions apply to trains with a Herzog RUM coupled to the train:

- All train movements may be made only at the direction of a qualified Herzog RUM operator accompanying the equipment.
- Maximum speed with Herzog RUM on trailing end of the movement is 15 MPH.
- Maximum speed with Herzog RUM on leading end of the movement is 10 MPH.

**3(L). Handling Roadway Equipment Equipped with Couplers and Air Hoses by Trains or Engines**

To prevent equipment damage, the following restrictions apply when handling Roadway Equipment equipped with rail car couplers and air hoses during train or switching movements:

- All air hoses must be coupled and air brakes cut in.
- An Engineering employee must be present when switching this equipment, including shoving movements.
- When moving between work locations all P811, UC01, UC03, UC08, UC09, UC10 and SC29-35 machines, and the flat cars transporting supporting equipment accompanying these machines, must be handled in a dedicated unit train or a dedicated work train. No additional rail cars may be handled in these trains.
- The heaviest machine may be placed as the rear car of a train only as directed by an Engineering employee.
- Maximum allowable speed while transporting in a train is 50 MPH.

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**4. Geometry Test Car Instructions**

Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, 93 and NXGX 390 (NxGen Car) must move in train by themselves. Geometry test cars 80/81, 85/86, 87/88, 90, 91, 92, and 93 are not required to have an ETD at the rear of the car when the car is occupied.

Work Orders for trains handling unmanned geometry test cars BNSF 90, 91, 92, and 93 will include instructions advising the conductor to call the Geometry Car Desk at 817-352-4559.

BNSF 808306, BNSF 808382, BNSF 808387, BNSF 808426, BNSF 808655 and BNSF 808683 are buffer cars assigned to Geometry Car service. When operating in a Geometry Car Consist, these buffer cars are considered to be passenger train equipment with a maximum authorized speed of 70 MPH.

Trains handling test cars AAR 112, BNSF 82 and BNSF 83 behind the locomotive consist may operate without further restricting the train from the maximum authorized speed designated in timetable individual subdivision special instructions. GCOR 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR 5.12 or 5.13. These cars are considered to be occupied at all times.

**FRA Track Geometry Inspection Cars**

The Federal Railroad Administration (FRA) Office of Railroad Safety-Automated Track Inspection Program (ATIP) manages a fleet of geometry test cars that measure track geometry for compliance with the Federal Track Safety Standards. FRA geometry cars are pulled behind a railroad-owned locomotive and staffed with FRA employees and contractors.

**FRA Geometry Car Operation**

1. Each train dispatcher and train crew will be governed by these instructions.
2. Before ATIP testing commences, the FRA representative (assisted by the test car director) is responsible for overall safety and will:
   a. Conduct a face-to-face job safety briefing with the train crew and all occupants of the test car concerning onboard safety appliances and standard operating procedures.
   b. Be aware of and discuss the operational and safety conditions, and on-track protection procedures, which may change throughout the course of the ATIP test; and update the job safety briefing accordingly.
3. The FRA representative will communicate directly with the railroad to ensure all operating rules, special instructions, and safety rules in effect on the test route are understood and correctly applied.
4. Trains consisting entirely of FRA geometry cars are restricted to BNSF timetable passenger train speeds, and must not exceed the following maximum equipment speeds: DOTX 216, 125 MPH; DOTX 217, 219, 220 and 221, 90 MPH; and DOTX 218, 80 MPH.
5. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew. The FRA Geometry Car operator relies on the train crew to identify relevant railroad physical characteristics, movement authority limits and authorized speeds.

**FRA Geometry Car Protection**

1. Neither FRA nor contractor employees will operate a railroad switch or derail, and will rely upon a railroad employee to perform that function. After receiving authority for placement from the appropriate railroad representative, protective devices owned by FRA, i.e., signs, derails, and locking devices, will be applied by an FRA representative.
2. FRA geometry cars must not be relocated or coupled to other rolling equipment without permission of FRA. At the request of FRA or the railroad, the following additional protective measures must be used:
   a. Within a locomotive servicing area or car shop area, the railroad's Blue Signal Protection rules and procedures will govern.
   b. When FRA geometry cars are unoccupied, FRA may request additional protection, such as posted guards, provided by the railroad and reimbursed by FRA.
   c. Where provided, a remotely controlled switch, providing entrance to the track occupied by FRA geometry cars, will be aligned against movement to that track. Blocking devices applied by the control operator will be placed on the switch and signal controls to prevent undesirable access.
   d. A manually operated switch will be aligned against movement to a track occupied by the FRA geometry car, and secured with an effective locking device, exclusive to FRA. In addition, the switch stand's operating mechanism will be equipped with an FRA-provided, visible, all-weather display tag, warning any users: "OUT OF SERVICE - DO NOT OPERATE."
   e. If a switch-locking device cannot be provided, as described above, FRA-provided portable derails will be used as an alternative to restrict access in either direction. In addition to the portable derails, the placement of warning signs will be displayed, indicating the presence of FRA geometry cars. The warning signs will be affixed or adjacent to the derail. FRA-provided derails will not be placed nearer than 150 feet from each end of the geometry cars, except where appropriate.
   f. If an FRA geometry car is standing alone, in addition to applying the hand brake, one wheel will be securely chocked to prevent movement.
   g. Either on a Main Track or other than Main Track, before anyone goes on, under, or between FRA track geometry cars, the locomotive engineer will apply the independent brake on the locomotive, remove the locomotive reverser, and open the field generator switch. The individual requiring protection will place a "Do Not Operate" tag on the locomotive control stand at a location where it is readily visible to the locomotive engineer or operator at the controls of that locomotive. The "Do Not Operate" tag may only be removed by the person who placed it on the locomotive control stand. Additionally, if adjacent tracks are, or will be, fouled by the individual going on, under, or between the FRA track geometry car, appropriate adjacent track protection must be afforded before going on, under, or between the car.

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**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- For hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E).
- For tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E).

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601399) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

The actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to locomotive cranes, ribbon rail cars or specialized work equipment.

Item 1(B) of the individual subdivision special instructions may include loaded railcar weight references, in which case the actual car weight may exceed the maximum by up to one ton due to weighing tolerances.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

**Table 5.**

**Car Restrictions**

| Line No. | No/ Axles and/ or Car Length | Typical Car Types & Partial Listing of Representative Car Number Series | **Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H**<br>Indicated weight limits are applicable to either single car or multiple car movements except for:<br>"143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements.<br>"P," which denotes that this type of car is permitted without special autohrization.<br>"NP," which denotes that this type of car is not permitted without special authorization. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E | F | G | H |
| 1 | 4 axles & length less than 35'0" | Hopper | 89 | NP | 89 | NP | NP | NP | NP | NP |
| 2 | 4 axles & length 35'0" to 36'11" | Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179 | 134 | 117 | 134 | 117 | 110 | 110 | 110 | 110 |
| | | | A | B | C | D | E | F | G | H |
| 3 | 4 axles & length 37'0" to 38'11" | Hopper, tank cars ATSF 82056-82990, 176900-177861 | 141 | 123 | 141 | 123 | 117 | 117 | 117 | 117 |
| 4 | 4 axles & length 39'0" to 40'11" | Hopper, tank cars BN 435500-435999 | 143 | 131.5 | 143 | 131.5 | 123 | 123 | 123 | 123 |
| 5 | 4 axles & length 41'0" to 42'11" | Hopper, tank cars BN 476000-476019 | 143 | 143 | 143 | 143 | 134 | 134 | 134 | 131.5 |
| 6 | 4 axles & length 43'0" to 44'10" | Hopper, tank cars | 143 | 143 | 143 | 143 | 136 | 136 | 134 | 131.5 |
| 7 | 4 axles & length 44'11" to 49'5" | Hopper, gondola, tank cars BN 686000-686054 COILCAR | 143 | 143 | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 8 | 4 axles & length greater than or equal to 49'6" | Hoppers, flats, gondolas, tank cars | 143X | 143X | 143 | 143 | 143 | 136 | 134 | 131.5 |
| 9 | 6 axles | ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 LMIX 403, 409, 410, 412, 414, 418, NS 185541-185542 | 197 | 197 | 197 | 197 | 197 | 197 | 185 | NP |
| 10 | 6 axles | DODX 39810-39832, KRL 600430 | 197 | 197 | 185 | 185 | 185 | 178 | 175 | NP |
| 11 | 6 axles | Others | 185 | 185 | 170 | 170 | 170 | 165 | 160 | NP |
| 12 | 8 axles & length greater than or equal to 80'0" | ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021 | 263 | 263 | 263 | 263 | 263 | 235 | 235 | NP |
| 13 | 8 axles & length greater than or equal to 55'0" and less than 80'0" | | 263 | 255 | 263 | 255 | 235 | 235 | 235 | NP |
| 14 | 8 axles & length less than 55'0" | ATSF 90020-90023 | 220 | 195 | 220 | 195 | 180 | 180 | 180 | NP |
| 15 | | Articulated Intermodal | P | P | P | P | P | NP | NP | NP |

TOC Home

**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Any foreign line carrier operating on BNSF that sets out equipment must notify the BNSF train dispatcher and the BNSF Mechanical Help Desk at the earliest opportunity and provide the following information:

- Equipment being set out including the engine/car number.
- Location where equipment was set out.
- Reason equipment was set out (e.g. flat spots, broken brake rigging, hot bearing, etc.).
- Commodity if a car contains a hazardous material, including but not limited to, Inhalation Hazard car(s).
- Any other pertinent information.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were performed enroute.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the proper track NUMBERS where they report work. Refer to the TRKLIST command in TSS for track numbers at a station or on a subdivision.

**Unit Trains (C, E, G, J, U, and X)**

Unit Trains at origin must report a "Pick Up" event and unit trains at destination must report a "Set Out" event using VTR.

- Report "Set Out" time through the VTR when the set out work is complete at the industry track, trains crews are clear of the equipment and the customer can begin processing the train, or when the unit train is handed off to the facility operator.
- Report "Pick Up" time through the VTR when the train begins departure from the industry track, departing the customer facility.

Train Work Order Package includes the following documents:

- Train list and profile.
- FRA 215.9 Mechanical Defective Cars List (if applicable).
- Hazardous manifest (if train contains hazardous materials).
- Work order for each station.
- Track list of each track to be worked.
- Supplemental Work Order Form.

The following reporting codes will be used to report work performed:

| Reporting Codes | | |
|---|---|---|
| Reporting Instructions for Scheduled/Unscheduled Work | | |
| Code | | |
| CC | CARRIERS CONVENIENCE | (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number. |
| DD | CARS DELIVERED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| IP | INTRA-PLANT SWITCH | (Code, date, time, zone/track/spot) |
| MO | MOVE | (Code, date, time, station name, zone/ track/spot). Use only to reposition a placed car to correct customer inventory. |
| ND | NOT DONE | (When ND code is used, enter ND explanation code or a full written explanation.) |
| OF | CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD | (Code, date, time, station name, zone/ track, name of road and person's name refusing cars) |
| PK | PICKUP | (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order. |
| PU | PULL | (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time, station, zone/ track where cars were left.) |
| RR | CARS RECEIVED IN INTERCHANGE | (Code, date, time, station name, zone/ track, and name of road) |
| RS | RESPOT | (Code, date, time, zone/track spot) |
| SO | SETOUT | (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/ number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD. |
| SP | SPOT | (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number. |
| TU | CARS TURNED ON WYE OR TURNTABLE | (Code, date, time, station name, zone/ track/spot) |

**Not Done Reasons - Potential Charge to Customer**

Car Can't Be Pulled - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

Car Can't Be Spotted - Customer Reason

- Customer Instruction Conflicting with Work Order
- Track or Equipment Inaccessible
- Unsafe Conditions or Car(s) Unsafe to Move
- Other Customer Exception

**Not Done Reasons - Not Chargeable to Customer**

Operation Reason

- Bad Order Car
- Done in Other Direction
- Tonnage Restrictions or Loco Problems
- Instructed to do Other than Scheduled Industry Work
- Not Switched into Train - Unavailable
- Hrs of Service Expired or Short on Time
- Weather Conditions
- Not Granted Mainline Time by Dispatcher
- Other Operating Exception