

Request No. 8: UP is directed to provide a detailed description of the root cause(s) for the increased use of embargoes from 2018 through 2021. UP is directed to provide documentation and/or data on which its description is based.

Union Pacific's Response

Union Pacific increased use of embargoes from 2018 through 2021 resulted largely from changes to our Customer Inventory Management System (CIMS) we began to make in 2018 as part of our broader efforts to reverse decreases in train velocity and increases in terminal dwell that were impairing our performance, and thus our ability to provide consistent and reliable service to our customers. In 2021, as we became increasingly concerned about rising levels of inventory across our system, we began to apply CIMS more consistently.

In March 2018, Union Pacific's system-wide velocity was 18.4 mph, down from the 2010-2017 average of 20.5 mph. Union Pacific's system-wide terminal dwell was 31.6 hours, up from the 2010-2017 average of 27.9 hours. Union Pacific's effort to diagnose the problem pointed to excess inventory—inventory growth that was outpacing carload growth—as the key issue to address. Union Pacific worked to develop solutions focused on six different areas affecting inventory levels: serving areas; terminals; interchanges; line of road; shippers; and storage. To address inventory levels in serving areas, Union Pacific developed and rolled out changes to CIMS.¹

Union Pacific developed the original version of CIMS in the early 2000's to address congestion in its terminal in Phoenix, Arizona. In early 2004, Phoenix was gridlocked with freight cars. In studying the situation, Union Pacific found that a number of customers had far more cars in the terminal than they could unload in any reasonable time frame. Union Pacific imposed embargoes on those customers to prevent the problem from growing, and we worked with them to reduce the backlogs. Union Pacific also established a policy that allowed customers up to three days' worth of cars in our serving yards at any time, but no more. Within weeks, Phoenix was cleared out and service had improved enormously. Over time, Union Pacific expanded the use of CIMS across our system.²

In 2018, Union Pacific was still using CIMS, but not in the same rigorous manner we had adopted to address the gridlock in Phoenix. Union Pacific would compare customer inventory in serving yards with daily release rates to identify customers with multiple days of inventory in our serving yards. Union Pacific issued warnings and sought solutions when yard inventories were outpacing customer unloading capabilities, and we would impose embargoes when cars continued to accumulate despite warnings and corrective efforts. However, Union Pacific Regional Managers had substantial discretion in addressing serving yard issues. Union Pacific was not applying a systematic set of rules regarding when to issue warnings or adopt corrective action plans, or when to escalate matters if warnings went unheeded or corrective action was failing to address growing inventories. Standards for imposing embargoes were similarly vague and subjective. Ultimately,

¹ See AIMS G5 SteerCo Jan 14 2019 presentation (UP-EP 772- 0564-0571).

² See Comments of Union Pacific Railroad Company, STB EP No. 677, Common Carrier Obligations of Railroads (Apr. 17, 2008).

embargoes could not be imposed unless approved by senior representatives of Union Pacific's Marketing, Operating, and Customer Care & Support departments.

In early 2018, as part of the effort to address excess inventory levels in serving yards, Union Pacific implemented a more systematic approach to reviewing and addressing accumulation of inventory in serving areas. The approach included weekly calls with each Union Pacific service unit to review the status of all customers with high inventory levels in serving yards relative to the customers' throughput. Initially, the process focused on customers in Union Pacific's Southern Region with more than 20 cars on hand and customers in Union Pacific's Northern and Western Regions with 50 cars on hand, where the cars on hand represented more than 5 days of inventory (based on the customer's release rate). The approach also included a systematic process for placing customers on a "worklist" and requiring inventory reduction "action plans," and then actively monitoring those plans and initiating embargo requests if the plans failed to achieve the objective.³ Union Pacific subsequently adopted a uniform process focusing on customers with more than 25 cars on hand representing more than 5 days of inventory.⁴ The ultimate decision to issue an embargo remained highly subjective and involved multiple approvers.⁵ However, as a result of implementing this more systematic approach, Union Pacific's use of embargoes increased.

Also in 2018, Union Pacific began developing a more standardized CIMS—essentially the process that remains in place today. The more standardized process incorporates the same principles as the prior version but is more equitable and less subjective in application. The standardized process applies to all customers that accumulate a high number of cars in serving yards relative to their release rates, not just customers with more than 20 cars in their serving yards. Each manifest customer facility is assigned a Maximum Inventory Threshold (MIT). The MIT calculation reflects each customer's average release rate and the number of days of week the customer receives service, and whether the serving yard is classified as congested. The process limits subjectivity by creating firm timelines for issuing warnings, requiring corrective action plans, and evaluating progress, as well as a straightforward process for imposing embargoes where corrective actions fail. The process also expressly incorporates consideration of Union Pacific's performance by precluding the use of embargoes when Union Pacific's local service falls below a specified performance level—set at 80% in 2018, but increased to 85% in 2023. Union Pacific began rolling out the more standardized CIMS process to serving areas in its Southern Region in late 2018, and we continued the roll-out across its network through 2019.⁶ As a result of implementing this more systematic, less subjective process, Union Pacific's use of embargoes increased in 2019.

Union Pacific's CIMS remained largely unchanged in 2020 and into the first part of 2021. However, in 2021, Union Pacific became increasingly concerned about rising levels of inventory across our system. As a result, Union Pacific further limited subjectivity in our application of CIMS. Union Pacific curtailed the use of individualized exceptions and more consistently followed the documented CIMS process for requiring corrective action plans, evaluating progress, and imposing embargoes if those plans failed to reduce excess inventory (or customers were

³ See Cameron March 2018 Staff Meeting – CC&S Slides final (UP-EP 772- 0017-0032).

⁴ See CC&S Slides for SRC 4-23-2018 – speaker notes version (UP-EP 772- 0575-0577).

⁵ See CIMS Update – DTS Presentation April 2018 ((UP-EP 772- 0154-0164).

⁶ See AIMS G5 SteerCo Jan 14 2019 presentation (UP-EP 772- 0564-0571).

unresponsive to our requests to take self-corrective measures). This more disciplined approach to our application of CIMS contributed to the increase in Union Pacific's use of embargoes in the second half of 2021.⁷

Factors other than changes to CIMS, such as overall excess inventory and railroad congestion, also affected the number of embargoes issued between 2018 and 2021. Union Pacific issued fewer embargoes in 2020 than in 2019, even though its standardized CIMS process was not fully implemented for all of 2019, as overall volume decreased due in large part to the impacts of COVID. However, the root cause of the increased use of embargoes from 2018 through 2021 was a combination of our initial efforts beginning in 2018 to improve and maintain service through more active, more standardized application of processes to reduce excess inventory and thus maintain fluidity in serving areas, and then our additional efforts in 2021 to address rising inventory levels across our system.

⁷ In 2021, Union Pacific implemented a process for making quarterly adjustments to shipper MIT calculations where customer release rates or day-of-week service changes. *See* CIMS April 2021 Process Update M&S (UP-0125). However, Union Pacific's adoption of a quarterly adjustment process did not result in a systematic increase or decrease in the use of embargoes.