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BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Ex Parte No. 724 (Sub-No. 5)

PETITION FOR RULEMAKING TO AMEND 49 C.F.R. PART 1250

COMMENTS OF THE ASSOCIATION
OF AMERICAN RAILROADS

The Association of American Railroads (“AAR”) files these comments in response to the decision served by the Surface Transportation Board (“STB” or “Board”) on April 5, 2019, in the above captioned proceeding. That decision directed AAR and the American Chemistry Council (“ACC”) to provide additional information related to a petition for rulemaking filed by ACC on December 6, 2018.

In its petition, ACC asked the Board to reopen final rules and impose additional service reporting requirements on railroads.¹ In comments filed on January 28, 2019, AAR opposed the petition because ACC did not demonstrate that their requested custom reporting would provide any public benefits that would justify the additional costs it would impose on railroads.² AAR’s

¹ Specifically, ACC asked the Board to: (1) impose a new chemical-specific category to the cars held for more than 48 hours report under 49 C.F.R. §1250.2(a)(6); (2) require all Class I, terminal and switching railroads operating in Chicago to report weekly average terminal dwell time, measured in hours, in addition to reports filed by the Chicago Transportation Coordination Office (“CTCO”) that already report dwell times in Chicago; and (3) require railroads operating in New Orleans, East St. Louis, and Memphis (collectively, “Mississippi Gateways”) to jointly report average daily car volumes for specific yards, average daily number of trains held for delivery (sorted by carrier), and terminal dwell time.

² The AAR comments also argued that ACC had not explained why the data that railroads make available to their customers and existing STB reporting was insufficient for chemical shippers. *See* AAR Comments at 5.

comments focused on the burdens that would be associated with joint reporting in East St. Louis, Memphis and New Orleans. To fully explain why joint reporting in these new locations would be burdensome, it will be helpful to describe the unique railroad coordination in the Chicago region that makes the current joint reporting possible. Since 2007, the railroad industry has spent approximately \$9.6 million through AAR, including the salaries and benefits of two full-time AAR employees based at CTCO, associated with administrative expenses, systems development, software programming, platform hosting, and the development of coordination processes in Chicago. This spending has been undertaken because of the importance of coordinating the Chicago terminal, the busiest rail hub in the United States, to the railroads' individual businesses.³

The necessity of increased coordination among railroads in Chicago was starkly demonstrated by a major blizzard in 1999 that paralyzed the terminal. As a result, the major railroads that operate in Chicago formed the Chicago Planning Group ("CPG") and soon thereafter, the CPG formed Chicago Transportation Coordination Office ("CTCO"). The CTCO was charged with coordination of operations in the Chicago terminal by jointly establishing route and terminal "critical thresholds," which included a scorecard of key performance indicators ("KPIs"), dispatch protocol, handoff simplification, and problem resolution process for systemic problems in key corridors. CTCO began systems development work that created linkages to information among railroads to allow the analysis necessary to carry out the threshold work. CTCO also was charged with coordination of long term facilities expansion and building a process to explore the opportunity to public sector partnerships. The Chicago Region

³ Each day, nearly 1,300 trains pass through the region (500 freight and 760 passenger) and Chicago handles one-fourth of the nation's freight rail traffic, each day handling 37,500 railcars. See <http://www.createprogram.org/>.

Environmental and Transportation Efficiency (“CREATE”) Program was launched with public-sector partners soon thereafter in 2003. The presence of railroad employees based in CTCO in Chicago has helped CREATE become the model of public-private partnerships for the country and was recognized as a Project of National Significance.⁴

Initially, the work of CTCO was done manually by railroad employees assigned to the office. Then, as now, railroads that participate in CTCO base a full-time employee that works in the CTCO office. Specifically, regarding KPI metrics, the original Chicago Scorecard data was primitive, and it was collected through manual processes from individual railroad sources, shared with the group, and discussed on twice-daily conference calls. This manual process of data collection resulted in metrics that were sometimes out-of-date by the time of their collaborative review, and information was derived from sources which could not be independently verified, allowing for potential subjectivity in the KPI metrics. For these reasons, CPG and CTCO worked with Railinc to develop a more automated process utilizing independent and objective sources of industry data that would yield reliable and consistent measures of terminal performance.

Railinc developed the Clear Path™ System, an application that helps railroads plan the movement of trains through the Chicago Terminal. Clear Path allows the exchange of timely, accurate and actionable information to facilitate proactive inter-carrier operations in the Chicago Terminal. Core components of the Clear Path System include the Clear Path Map, Bulletin

⁴ CREATE is an innovative public-private partnership involving BNSF, Canadian Pacific, Canadian National, CSX, Norfolk Southern, Union Pacific, Amtrak, Metra, the U.S. Department of Transportation (DOT), the state of Illinois, the city of Chicago and Cook County. The \$4.6 billion plan includes 70 projects (29 of which are already complete) to improve the efficiency and effectiveness of Chicago’s freight, commuter and intercity passenger rail.

Exchange, Interchange Activity, C-IROC Dashboard and Clear Path Metrics. Clear Path Metrics now utilize a complex series of business rules and system logic to combine car-level event reporting (TRAIN II messages),⁵ trip plans (EDI 421s), waybills (EDI 417s) and equipment specifications maintained in Umler⁶ to calculate many of the KPIs published twice daily on the Chicago Scorecard, including Yard Inventories, Yard Dwell, Terminal Forecast Indicators, Terminal Historical Indicators, Interchange Events and Transit Time. Beyond the KPIs included on the Chicago Scorecard, Railinc has worked with the Chicago railroads to integrate a near real-time feed of railroad dispatch data (including train location and infrastructure status information) into Clear Path to support the automated identification of train delays within the Chicago Terminal.

CTCO launched the Chicago Integrated Rail Operations Center (“CIROC”) in 2016. Building on top of the work of CTCO, CIROC is a unique, 24-hour-a-day, seven-day-a-week command center that allows railroads to continually watch the Clear Path real-time terminal-wide dispatch information. Through CIROC, railroads work together to anticipate potential operational problems, forecast events that reduce speed and capacity such as severe weather, review train routing and schedules, and mobilize the right equipment, materials and personnel to keep trains efficiently moving through the city, especially during rush hour.

⁵ The TRAIN II System provides physical location information of North American rail equipment as reported by over 460 railroads. *See* <https://www.railinc.com/rportal/train-ii-service>.

⁶ Originally created in 1968, Umler is an electronic resource that maintains data for more than two million pieces of equipment used in rail, steamship and highway service. Railroads, equipment owners, agents, shippers, ports, suppliers, industry consultants, government agencies and car maintenance facilities use Umler for the safe and efficient placement, movement and interchange of cars for railroad carriers and customers. Umler data elements identify internal and external dimensions, capacities, weight information and specific characteristics of freight cars, trailers and containers. It serves as the base file for industry reference files (IRFs) as well as industry equipment accounting files. *See* <https://www.railinc.com/rportal/umler-system>.

Important business purposes led to the creation of CTCO and CIROC and their administrative framework now allows the railroads to jointly report service information in Chicago to the Board. The weekly CTCO report required by 49 C.F.R. §1250.3(a) that includes yard inventories and trains held, is populated by the product of two distinct work streams that generate inputs for the required report. First, to generate the weekly average car counts, Railinc pulls car-level event report data, TRAIN II messages, and matches it against equipment specifications maintained in Umler. The Clear Path System process work in Chicago added additional car events to identify relevant SPLC codes and that work now allows Railinc to associate appropriate car events to generate this report.

The second work stream is for the trains-held metric. Railinc begins with railroad dispatch data that are shared with CIROC to allow carriers visibility to other railroads' operations. Railinc uses data to identify all trains that have been stopped for a specified time period. That raw number is reported to CTCO. Each railroad's employee based at CTCO then reviews that metric and applies additional criteria to identify relevant traffic and manually calculates the trains-held totals. Specific to metrics reporting, that means 18 full-time employee hours are spent by railroad employees based at CTCO each week manually finalizing totals.

After the report totals are finalized, the Board's reporting rules necessitate manual intervention by the CTCO to generate the report. Weekly yard inventories and trains held are manually input into a spreadsheet, a narrative is drafted, and the pdf is submitted by e-mail to the Board.

In addition to reporting of the two required metrics, CTCO files a report with the Board that includes additional Chicago metrics derived from the KPIs that it makes available to other Chicago stakeholders. One of those metrics is a weekly average of daily car dwell. Like car

inventories at yards, terminal dwell measures average length of time cars spend in a specified location in a terminal, i.e., a yard. That report is derived from car event data and equipment specifications similar to data used to establish car counts.

Replicating these specific reporting methodologies that have been deployed in Chicago in other gateways would require deployment of a Clear Path-type system for those gateways and establishment of an organization of people at those gateways to both design and compile reports. A sustained and collaborative effort would be needed to deploy Clear Path System components to additional territories like the Mississippi Gateways, due to the unique characteristics and requirements of each gateway. Close coordination with railroad operations and IT personnel, as well as those from disciplines such as computer-assisted dispatch (“CAD”) and geographic information systems (“GIS”) were necessary in Chicago to develop metrics which account for the complex makeup of Chicago’s infrastructure and deliver tools that meet the needs of railroad personnel planning and executing the flow of traffic through the terminal daily. Similar efforts would have to be undertaken in the new territories.

AAR and Railinc estimate that the cost of reproducing these three joint reports and related application functionality for the three new gateways would be over \$1.6 million, not including annual maintenance expenses of approximately \$330,000.⁷

⁷ Specific reporting requirements and data availability for the three gateways were not known at the time this estimate was developed. This estimate was derived from the scope of work and effort to develop similar reports for the Chicago terminal.

Implementation	Clear Path Metric	Cost Estimate
New Orleans	Yard Inventory Metric	\$ 145,000
	Yard Dwell Metric	\$ 120,000
	Held Trains Metric	\$ 280,000
	Total Development	\$ 545,000
	Annual Recurring Maintenance	\$ 110,000
East St Louis	Yard Inventory Metric	\$ 145,000
	Yard Dwell Metric	\$ 120,000
	Held Trains Metric	\$ 280,000
	Total Development	\$ 545,000
	Annual Recurring Maintenance	\$ 110,000
Memphis	Yard Inventory Metric	\$ 145,000
	Yard Dwell Metric	\$ 120,000
	Held Trains Metric	\$ 280,000
	Total Development	\$ 545,000
	Annual Recurring Maintenance	\$ 110,000
Combined Totals	Total Development	\$ 1,635,000
	Annual Recurring Maintenance	\$ 330,000

Additionally, the input, guidance and leadership of the CPG and CTCO was an essential aspect of the development of the Clear Path System, and replication of Clear Path Metrics in another territory would require similar organization and engagement to succeed. Staffed with

railroad operations personnel possessing a thorough understanding of the idiosyncrasies of the Chicago Terminal, the CTCO's participation in the design, validation and refinement of each metric has been essential to the delivery of useful and meaningful measures of terminal performance. Similar insights into the new terminals would also need to be brought to bear, bringing additional expense to individual carriers that operate in those terminals. In addition to the metric validation work, each railroad that participates in joint reporting would need to dedicate some IT employees to working with Railinc to process the data into reports. These costs would be in addition to costs incurred by Railinc. Each carrier would need to devote 40-business days' worth of employee time spread across two to three full-time employees to unify geographic definitions of terminal locations and to adjust systems accordingly. AAR estimates the additional carrier expense for this start-up work to be approximately \$137,000.⁸

Also, while Railinc may have current access to some of the data needed to reproduce select Clear Path Metrics in additional gateways, a thorough assessment of the territories in question and the related car event data is needed to determine if additional railroad data would be required to generate reliable metrics. For metrics derived from Clear Path's automated identification of stopped trains, a process which relies upon a near real-time feed of railroad dispatch data, additional railroad data would be required. The effort to establish and maintain

⁸ This number is calculated as 40 days multiplied by 8 hours per day multiplied by a wage rate of \$43.30 multiplied by a fringe benefit factor of 1.41 multiplied by 7 carriers equals \$136,758.72. The \$43.30 wage rate is the 2018 wage rate for Professional & Administrative railroad employees calculated by the Board in the Annual Compilation of Wage Statistics of Class I Railroads in the United States. See https://www.stb.gov/stb/industry/econ_reports.html. The 1.41 fringe benefit factor is calculated from Wage Form A&B and R-1 data (Schedule 410 and 450) as set forth in AAR's *Railroad Ten-Year Trends* publication. The fringe benefit factor is calculated by dividing total Class I Average Annual Compensation per Employee divided by Average Annual Wages per Employee. For 2018, those numbers are \$130,285 divided by \$92,295. This conservative cost estimate does not include employee overhead.

these new data feeds in Chicago remains ongoing, and the railroad resources required to expand these data feeds to additional regions should not be underestimated.

As described above, some metrics rely upon a combination of manual and automated processes to yield actionable insights, and require ongoing railroad participation to generate. For example, the monitoring of train delays within the Chicago Terminal begins with Clear Path's automated identification of potential issues using railroad dispatch data and a series of specific business rules. However, CIROC personnel then investigate and expand upon train delay records with additional critical information. This manual and location-specific process is needed to validate individual train delays and enable the root-cause analysis required to inform meaningful metrics and better strategic decision-making. After the massive start-up expenses of establishing and staffing a CTCO-type office described above, this metric-specific carrier cost would be expected to be over \$57,000 annually at each new terminal or approximately \$171,000 annually for all three requested gateways.⁹

* * *

Though not on the same order of magnitude as joint reporting, AAR also pointed out in our January comments that, "[c]ontinuous changes to the Board's reporting rules would impose ongoing costs to railroads that would need to make programming changes to their systems to enable compliance." AAR Comments at 3. AAR pointed out that ACC had ample opportunity to advocate for chemical-specific reporting during the formulation of the final rules. *See id.* (noting that ACC participated in the EP 724 hearing on April 10, 2014, and filed comments in EP 724 (Sub-No. 4) without requesting chemical-specific reporting). ACC's request for the

⁹ This number is calculated as 18 employee hours multiplied by \$43.30 multiplied by the fringe benefit factor of 1.41 multiplied by 52 weeks multiplied by 3 gateways equals \$171,436.26.

additional reporting of STCC 28 traffic as a line item in the cars-held for more than 48 hours report will necessitate each Class I railroad to alter the coding necessary to pull the data prescribed by the Board to be reported first in 2014, altered in 2016, and altered again in 2017.

Each time a carrier makes changes to its report, it must ask employees to update existing computer coding on what data to pull, write new code to modify the search parameters, test new code against existing systems to make sure it does not cause some problem and have the new code approved. This process involves approximately three to four employees and may take up to 80 employee-hours to complete. AAR estimates such effort to cost approximately \$34,000.¹⁰ This cost from repeated, close-in-time changes, adds to the cumulative burden of service reporting and the costs already incurred to establish the report and its previous iterations.

* * *

As explained in AAR's January comments, ACC has not demonstrated public benefits that would balance out the substantial costs that additional reporting would impose on railroads explained above. In particular, ACC has not justified the massive expense that would be associated with joint reporting at three new gateways. It is important to note that the close coordination among railroads around the Chicago gateway arose from a practical need for such coordination due to the importance and complication inherent in the Chicago gateway, and the reporting of information regarding the Chicago gateway that has been required by the STB was facilitated by this pre-existing coordination. The Mississippi Gateways, on the other hand, are not nearly as critical to the national network or as complicated as Chicago, so requiring reporting for the Mississippi Gateways similar to that for Chicago would require the railroads to expend

¹⁰ This number is calculated as 80 employee hours multiplied by \$43.30 multiplied by the fringe benefit factor of 1.41 multiplied by the 7 Class I railroads equals \$34,189.68.

resources for extra layers of coordination that would be necessitated solely by the new reporting obligations rather than by the inherent importance and complication of those gateways.

Respectfully submitted,

A handwritten signature in blue ink, appearing to be 'K. Kirmayer', with a long horizontal flourish extending to the right.

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May 6, 2019

VERIFICATION

I, Chris Dovichak, declare that I serve as Product Manager, Gateway Services, at RAILINC Corp., and that I have read the foregoing and that it is true and correct, to the best of my information and belief. Further, I certify that I am authorized and qualified to make this declaration.

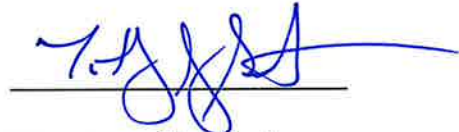
A handwritten signature in dark ink, appearing to read "Chris Dovichak", written in a cursive style.

May 6, 2019

CERTIFICATE OF SERVICE

Undersigned counsel hereby certifies that I have contacted the party of record in this proceeding, American Chemistry Counsel (“ACC”), and confirmed its consent to service by electronic mail. I further certify that I have caused a copy of the Association of American Railroads’ filing to be served on ACC at the address below:

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Timothy J. Stratford