DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS
SAFETY ADMINISTRATION

DOCKET NO. PHMSA-2019-0031 (HM-265A)
HAZARDOUS MATERIALS:
MODERNIZING REGULATIONS TO IMPROVE SAFETY AND EFFICIENCY
ADVANCE NOTICE OF PROPOSED RULEMAKING

COMMENT SUBMITTED BY
THE ASSOCIATION OF AMERICAN RAILROADS
AND
THE AMERICAN SHORT LINE AND REGIONAL RAILROAD ASSOCIATION

The Association of American Railroads (AAR) and the American Short Line and Regional Railroad Association (ASLRRA), on behalf of themselves and their member railroads, submit the following comments in response to the Pipeline and Hazardous Materials Safety Administration's (PHMSA's) July 5, 2023, Advance Notice of Proposed Rulemaking (ANPRM) soliciting feedback on certain regulatory initiatives that PHMSA contends may modernize the Hazardous Materials Regulations (HMR) and improve efficiencies while maintaining or improving a current high level of safety.

Statement of Interest

AAR is a non-profit trade association whose membership includes freight railroads that operate 83% of the line-haul mileage, employ 95% of the workers, and account for 97% of the freight revenues of all railroads in the United States; and passenger railroads that operate intercity passenger trains and provide commuter rail service. ASLRRA is a non-profit trade association representing approximately 500 short line and regional railroad members and hundreds of railroad supply company members in legislative and regulatory matters. Short

lines operate 50,000 miles of track in 49 states, or approximately 30% of the national freight network. The members of AAR and ASLRRA will be directly affected by the proposed changes because they will be required to develop and implement new protocols and procedures to comply with revised regulations if the ANPRM is finalized.

A. Evaluation of Carrier Maintenance of Emergency Response Information

1. Should ERI be required to accompany shipments of hazardous materials? If no, what alternatives should be considered that maintain existing levels of safety?

If the ERI requirement is going to remain, then PHMSA needs to modernize existing regulations to allow for emergency response information to be maintained and provided electronically or by paper, but should not require shipments to be accompanied by both. Given the rollout of the emergency response information (ERI) app, it is duplicative to require separate ERI in a different format.[1, 2] A requirement to provide both paper and electronic information would—in addition to being unnecessarily duplicative—increase the opportunity for human error and hinder emergency response by creating a potential point of confusion.

Additionally, PHMSA should ensure that ERI requirements are standardized across modes. This would increase safety by streamlining the process and increasing certainty for emergency responders who are responding to an incident.

2. How does, if anything, the utility or value of ERI vary under § 172.602 in the different modes of transportation?

a. In highway and rail accidents, is emergency response generally conducted by emergency responders rather than carrier personnel? Explain.

Rail accidents that result in the release of hazardous materials are rare. More than 99.99 percent of hazmat carloads arrive at their destination without incident. Since 2000, the hazmat accident rate has declined by 73 percent. In 2022, less than 1 percent of reportable train accidents resulted in a release of hazardous materials. The vast majority of reportable accidents that do occur are minor, such that the rail carrier personnel (or rail contractors) are able investigate and determine the appropriate response without the need for state or local emergency responders (such as local firefighters or police) to launch. In such cases, railroads typically have agreements in place with qualified hazmat and environmental contractors who assist with response, restoration, and remediation, as necessary.

[1] https://www.phmsa.dot.gov/hazmat/erg/erg2020-mobileapp.

[2] As PHMSA is aware, the Class I railroads have developed AskRail and made the app available to all emergency responders. AskRail contains real-time electronic consist information as well as a trove of other information to assist in emergency response, including links to the Emergency Response Guidebook (ERG).

In those rare instances where state or local emergency responders do launch, they are focused on incident command and protecting the community while the railroad and its contractors are focused on rail-specific work (e.g., patching a tank) to ameliorate the immediate danger. In such circumstances, railroads have often proactively built partnerships and relationships with the emergency response community, including training with local emergency responders, which helps to facilitate response activities.

b. How much do emergency responders rely on the ERI provided by the highway or rail carrier, or do they rely on their own?

When rail carriers or their contractors respond to a reported release, they rely on the ERG or similar references followed by safety data sheets (SDS), as provided by the shipper, with expectation that the information that is provided is correct.

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3. Provided an equivalent level of safety can be maintained, what are the potential cost savings involved in revising the ERI requirements under § 172.602?

There would be substantial economic and environmental benefits to PHMSA modernizing its regulatory requirements, given that there is already an electronic ERI alternative. As noted in AAR's comment to the PHMSA's Real-Time Train Consist NPRM, requiring all railroads to print and keep a redundant paper copy is unsound because it unnecessarily contributes to expanding the nation's carbon footprint.[3] While it is not a one-to-one comparison, AAR notes in its comment that allowing the use of electronic consists significantly reduces the amount of paper used by railroads by millions of sheets per railroad per year. Moreover, allowing an electronic alternative means that railroads can take printers out of service because they are not needed for printing consists, which provides ancillary environmental benefits by reducing electricity usage and eliminating the need for ink at such printer stations.

Experience shows that allowing electronic alternatives does not negatively impact safety. Several railroads are currently operating under special permits, including all six Class I railroads, that allow them to use "electronic means to maintain and communicate on-board train consist and shipping paper information in lieu of paper documentation when hazardous materials are transported by rail."[4] These special permits allow ERI required under § 172.602 to be communicated electronically. In the preamble to the Real-Time Train Consist NPRM, PHMSA acknowledges that these special permits have been a success, noting in the preamble that it is "not aware of any negative impacts." 88 Fed. Reg. 41541, 41545. Indeed, PHMSA even notes

[3] https://www.regulations.gov/comment/PHMSA-2016-0015-0043.

[4] DOT–SP 20954 (issued to BNSF Railway Company); DOT–SP 21046 (issued to CSX Transportation); DOT–SPs 21053 and 21323 (issued to Canadian National Railway Company); DOT–SP 21059 (issued to Union Pacific Railroad Company); and DOT–SP 21110 (issued to Norfolk Southern Railroad).

examples where the electronic consist information was shared with emergency responders to assist in the emergency response.

PHMSA has also noted that the use of electronic shipping papers—

- Improves the availability and accuracy of hazard and response information for shipments and packages;
- Improves the speed by which information is available to emergency responders when accidents or incidents occur;
- Improves the security of imported containers through better knowledge of shipments; and
- Enables U.S. companies to compete more effectively in the global economy by using the best tools available.[5]

As a result, PHMSA has acknowledged that the use of electronic shipping paper information provides "economic benefits and proven efficiencies."[6] The Class I railroad experience supports that conclusion. Therefore, AAR encourages PHMSA to modernize its regulations to allow an option for shippers and carriers to communicate ERI electronically.

a. Would revisions to § 172.602 in effect "shift" the costs of maintaining ERI to entities other than the carrier, such as emergency responders affiliated with tribes, states, counties, or localities?

No, it would not shift or add costs. These entities already have access to the information through the ERG or other subscriptions.

4. Are there differences in the reliance on the carrier's copy of ERI between different types of emergency responders? Differences to consider include urban and rural organizations, professional and volunteer, and different response branches such as law enforcement officers and firefighters.

Some departments are more professional and are better outfitted, which includes access to information. However, railroads provide the same level and same type information to an emergency responder department whether it is urban or rural, large or small, or volunteer or professional.

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[5] https://www.phmsa.dot.gov/hazmat/hm-access/faqs.
[6] *Id.*

P. Removal of the 60-Day Renewal Requirement for Approvals and Special Permits

1. Do you support authorizing continued use of special permits and approvals until final administrative action is taken on the renewal application, provided the applicant requests renewal prior to the expiration date? Explain.

AAR and ASLRRA support the continued use of special permits and approvals until final administrative action is taken on the renewal application, and recommends eliminating the 60-day requirement in 49 CFR 107.109(b). The 60-day requirement does not serve a safety purpose. It just establishes an arbitrary filing deadline in advance of the expiration date. Eliminating the 60-day deadline would provide added regulatory certainty.

2. Would this regulatory flexibility provide any quantifiable monetary or other benefits for a holder of a special permit or approval? If so, please provide information related to any known benefits or decreased costs.

Regulatory certainty.

3. What safety concerns are there for allowing continued use of a special permit or approval beyond its expiration while a renewal application is being processed?

None, the date is just that, the current safe practices would remain unchanged.

4. Would such continued use of a special permit or approval cause any potential complications for the enforcement of HMR requirements by state and local partners?

No. Any potential for complications could be addressed through training and outreach, which would help to ensure that state and local partners are appropriately informed.

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V. Identification of Freight Containers in Rail Transportation

AAR generally supports the standardization of the markings of freight containers that are shipped by rail. Eliminating variability will improve safety by ensuring that railroad employees and emergency responders know exactly what to look for and where to look when identifying essential hazardous materials information to help ensure proper handling of a freight container.

W. Exceptions for Rail Transport of Lithium Batteries for Purposes of Recycling and Disposal

The transportation of lithium batteries by rail is an emerging issue. Railroads are aware of the potential dangers associated with the transportation of lithium batteries. These issues occur across modes, and railroads are not immune.[7] As a result, railroads take several steps to ensure the safe transportation of lithium batteries, including following the requirements 49 CFR

[7] https://www.trains.com/trn/news-reviews/news-wire/28-lithium-ion-batteries-cause-fire-and-explosion-aboard-up-train/

173.185. AAR is concerned about reducing the standards related to the transportation of lithium batteries for disposal and recycling, and supports additional research into the methods of safe transportation by rail to help inform effective regulation.

X. Tank Car Manway Inspections

Approximately 40%-60% of non-accident releases (NARs) of hazardous materials on railroad systems occur at hinged and bolted manway covers. AAR supports effective measures for eliminating NARs, including the elimination of hinged and bolted manway covers. There are alternative methods of securement that are safer and perform better than hinged and bolted manways in preventing NARs. AAR has approved tension band and strongback designs, which have been shown to provide an effective seal to prevent NARs. Additionally, AAR is aware that fittings plate designs have been safely used for many years in sulfuric acid service.

Y. Acid Resistant Manways for DOT 111A100W5 Tank Cars

AAR does not support eliminating the requirement in 49 CFR 179.201–6(b) that DOT–111A100W5 tank cars must be covered by an acid resistant material, unless the metal manway cover is made from material that is not affected by the lading. There is an expectation that a DOT–111A100W5 tank car is fit for corrosive service. Indeed, the intent of the standard is to ensure that the tank car is acid resistant. If PHMSA intends to remove the acid resistant qualities of a DOT–111A100W5 tank car, then it should be treated as a "W1" tank car or given an entirely different specification.

Z. Tank Car Thermal Protection Standard

1. What specific change to the HMR is requested to address the issue identified by Norfolk Southern?

AAR and ASLRRA suggest that all flammable liquid tank cars should be protected by a thermal blanket or other thermal protection. Insulation only cars, such as the DOT-117R car, would be expected to lose a significant portion of its product within 100 minutes, while thermal protection cars would be expected to hold the contents of the tank car beyond the 100-minute timeframe.

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3. In general, should PHMSA consider increasing the minimum 100-minute pool fire standard to 200-minutes or longer in § 179.18(a)? Explain.

The current test mandated by 49 CFR 179.18 is not an effective test for measuring the performance of thermal protection systems. There is no field data to suggest that 100-minute threshold fails to do its job. Changing from 100 to 200 minutes would only have the effect of eliminating the use of certain DOT-117s because there are a class of DOT-117s that are insulation-only and do not have a thermal blanket.

AA. Unoccupied Locomotive Train Placement

1. Do railroads use distributed power units to transport employees? If so, how will railroads ensure that an occupied distributed power unit is provided the required buffer cars?

Only in very rare emergency events. An example of this would be during severe winter weather, such as a blizzard, where a train is stalled and it is imperative to get the crew off of the stalled train to a safe location, the crew may use the DP locomotive from a passing train to get transported to safety.

2. Do you support the creation of operational controls beyond the requested revision in P–1741? Why or why not?

Yes, AAR believes the provisions in P-1741 should be incorporated into the regulations with some operational controls including those listed below.

a. Should a distinction for buffer car requirements be drawn between unoccupied head-end locomotives, distributed power units, and dead-in-tow locomotives?

Distributed power locomotives (DP) and dead-in-tow (DIT) locomotives are different from the head end locomotive consist. Unoccupied DP and DIT locomotives, for train placement, should be considered the same as freight cars and would not require buffer cars.

b. What operational controls (e.g., locked doors, door tags with a message prohibiting entry), if any, are appropriate to identify a locomotive as an unoccupied distributed power unit?

Unoccupied DP and DIT locomotives should be locked. However, additional requirements such as door tags or messages do not provide any increase in safety.

c. Are there any hazard class or divisions that should still require compliance with buffer car requirements, even from unoccupied distributed power units? If so, how many buffer cars?

The current special permit for unoccupied DP and DIT locomotives require buffer cars for Division 1.1, 1.2, 6.1 (PGI, Zone A) and Class 7 (SNF and HLRW). From a risk perspective, adding a buffer car requirement for these materials does not increase the safety of transportation. Moreover, having these materials next to an unoccupied DP or DIT locomotives will not increase the severity or probability of release.

d. If operational controls (e.g., locked doors, door tags), and maintenance of buffer car requirements for unoccupied distributed power units for certain high hazard materials are proposed, would that impact the estimated cost savings projected in the petition? To what extent?

Cost savings are very difficult to quantify. Clearly there are positive worker safety impacts for minimizing switching events especially when crews are required to set cars out of their train, such as due to a failed equipment detectors warning. Setting out a car in a train that

will impact the train placement compliance, such as buffer cars protecting unoccupied DP or DIT locomotives, requires significant switching in order to get the train back into compliance with FRA rules. These switching moves do add safety risk to train crews.

3. Does removing the requirement for buffer cars around distributed power units create any additional risks to railroad employees or the general public? Explain.

It does not result in additional risk to railroad employees or the public.

4. Across all railroads, how many switching moves occur annually?

a. If unoccupied locomotives are no longer required to be separated from placarded rail cars, how many fewer switching moves would be required across all railroads?

It is very difficult to quantify.

b. If unoccupied locomotives are no longer required to be separated from placarded rail cars, how many fewer switching moves would be required for Class I, II, and III railroads?

It is very difficult to quantify.

5. Would other benefits (i.e., increased number of cars in revenue service) accrue to railroads if buffer cars are no longer required around distributed power units?

No.

6. Is the estimate of annual savings of $180,000–$450,000 per railroad accurate for Class I railroads? Explain.

a. What are the estimated savings for Class II and Class III railroads?

It is very difficult to quantify. There is no data to suggest that the $180,000–$450,000 per railroad estimate is not accurate.

b. What other costs, if any, are associated with this requirement, or is the only quantifiable financial impact the cost savings described above? Please describe all other sources of cost savings or costs.

Yes. There are costs other than the quantifiable economic impact, including injuries associated with switching events.

7. How do railroads acquire buffer cars?

a. What commodities or materials do buffer cars typically contain? Would eliminating the buffer car requirement disproportionally affect customers/related entities?

With exception to crude and ethanol unit trains, buffer cars are typically non-hazmat cars that are part of the train. For crude and ethanol unit trains, railroad typically provide hopper cars of sand to be used as the buffer car. Railroads may also use maintenance-of-way

cars if no other cars are available. Therefore, this proposed change would not disproportionally affect customers.

b. How can the market for buffer cars be described? Who would be most affected by eliminating the demand for buffer cars?

As explained above, there is no real market for buffer cars.

BB. Offering a Tank Car After Qualification Expiration

Shippers are the ones who load cars. Rail carriers have no insight into whether the car was loaded before or after expiration. The existing regulation only applies to when the car can be loaded. It does not put a requirement on when the load can be transported. AAR suggests that PHMSA adopt a date certain approach. For example, the tank car cannot be loaded after the qualification date and cannot be transported more than one year after qualification unless there is a one-time movement approval (OTMA) for the load.

CC. Non-Destructive Examination

1. Should PHMSA create a definition for non-destructive examination? Explain why you support or oppose the creation of a definition for NDE.

AAR is supportive of an NDE definition to ensure that appropriate methods are used to qualify rail tank cars. This would mean that the examination of the tank car or tank car component to establish a qualification interval would need be included in an NDE program.

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RR. NTSB Safety Recommendations R–20–1 to R–20–4

1. Do you support adoption of the Transport Canada coupling speed and impact mass standards, described above, into the HMR? Why or why not? Please support your position with any data or information available to you.

No. The Transport Canada standards for coupling speed standards and inspection requirements for "overspeed coupling events" sets up a burdensome process that does not positively impact safety. AAR understands that Transport Canada is considering rescinding its standards because the inspections have not been effective in identifying if a car has been damaged.

2. Do you support requiring a visual inspection of the tank car underframe, and coupling and cushioning components immediately (within 2 km, or 1.25 miles) after an overspeed coupling event that exceeds certain speed and impact mass standards? Why or why not? Please support your position with any data or information available to you.

No.

a. Is requiring an immediate visual inspection of the tank car before the train moves 2 km (1.25 miles) miles a reasonable standard? What alternatives should be considered? Explain.

No.

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3. Do you support requiring a detailed structural integrity inspection, conducted at a certified tank car facility, for a tank car subjected to a coupling that exceeds certain speed and impact mass standards? Why or why not? Please support your position with any data or information available to you.

No, for the reasons stated above.

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TT. Emerging Technologies

AAR encourages PHMSA to incorporate the use of AskRail® into its regulations for the reasons explained in AAR's comment to PHMSA's Real-Time Train Consist NPRM, 88 Fed. Reg. 41541.[8] As discussed in AAR's comment, the railroad industry has voluntarily and proactively invested in AskRail®, which is available to all emergency responders in the United States. AskRail® provides first responders with immediate electronic access to accurate, timely data about what type of hazardous materials a railcar is carrying that can be downloaded to a smartphone, computer, or handheld device so they can make an informed decision about how to respond to a rail emergency.

In addition to identifying the hazardous material in a particular rail car, AskRail® also informs the user of the quantity and location of all hazardous materials on the train; provides emergency response information for the hazardous materials on the train; and supplies a railroad's 24/7/365 emergency response point of contact. An authorized AskRail® user can enter any car or locomotive number to get consist information for the entire train. The consist information allows a user to receive an immediate record of a specific car's contents (whether the car has hazmat or not), the standing order of the train, and the contents of every rail car in the train.

AskRail® highlights whether the car is carrying a hazardous commodity for easy and fast identification within the train list. It will also display the car type, DOT package specification of a tank car, the quantity of the hazardous commodity carried, the proper shipping name, the UN ID Number, the packing group, placard, and the handling railroad, in addition to the handling railroad's 24/7/365 emergency response phone number.

Additionally, AskRail® provides a link from the UN ID number or placard display to the appropriate guide from the Emergency Response Guidebook ("ERG") for the product in the car.

[8] https://www.regulations.gov/comment/PHMSA-2016-0015-0043.

The emergency contact phone number is hot-linked so that a responder can call the handling railroad directly from AskRail®. AskRail® also provides a separate page with all Class I freight railroad emergency contact phone numbers.

AskRail® is supported by the International Association of Fire Chiefs, and PHMSA has recently recognized that AskRail® is a valuable tool, "encourage[ing] emergency response organizations and 9-1-1 call centers (e.g., emergency communication centers and PSAPs) to register and use all available means to access emergency response information for hazardous materials involved in transportation incidents, including the AskRail app for rail incidents."[9]

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Thank you for your consideration of these comments.

Respectfully submitted,

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[9] "Safety Advisory Notice Encouraging the Use of Real-Time Train Consist Information in 9-1-1 Call Centers," (July 11, 2023). https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2023-07/PHMSA%20Safety%20Advisory%20Notice%20-%209-1-1%20Call%20Centers.pdf.