



DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 174, and 180

[Docket No. PHMSA-2016-0015 (HM-263)]

RIN 2137-AF21

Hazardous Materials: FAST Act Requirements for Real-Time Train Consist Information

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: PHMSA proposes amendments to its Hazardous Materials Regulations to require all railroads to generate in electronic form, maintain, and provide to first responders, emergency response officials, and law enforcement personnel, certain information regarding hazardous materials in rail transportation to enhance emergency response and investigative efforts. The proposal responds to a safety recommendation of the National Transportation Safety Board and statutory mandates in The Fixing America's Surface Transportation Act, as amended, and complements existing regulatory requirements pertaining to the generation, maintenance, and provision of similar information in hard copy form, as well as other hazard communication requirements.

DATES: Comments must be received by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. To the extent possible, PHMSA will consider late-filed comments as a final rule is developed.

ADDRESSES: You may submit comments by any of the following methods:

- *Federal Rulemaking Portal:* <https://www.regulations.gov>. Follow the online instructions for submitting comments.
- *Fax:* 1-202-493-2251.

- *Mail:* Docket Management System; U.S. Department of Transportation, Docket Operations, M-30, Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001 between 9 a.m. and 5 p.m. EST, Monday through Friday, except Federal holidays.

Instructions: Include the agency name and docket number PHMSA-2016-0015 (HM-263) or RIN 2137-AF21 for this rulemaking at the beginning of your comment. Note that all comments received will be posted without change to <https://www.regulations.gov>, including any personal information provided. If sent by mail, comments must be submitted in duplicate. Persons wishing to receive confirmation of receipt of their comments must include a self-addressed stamped postcard.

Docket: For access to the dockets to read background documents or comments received, go to <https://www.regulations.gov> or DOT Docket Operations Office (*see ADDRESSES*).

Confidential Business Information: Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA; 5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” Submissions containing CBI should be sent to Dirk Der Kinderen, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Washington, DC 20590-0001. Any commentary that PHMSA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

FOR FURTHER INFORMATION CONTACT: Dirk Der Kinderen, 202-366-8553, Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590-0001.

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Executive Summary
 - A. What is the Purpose of the Proposed Regulatory Action?
 - B. What are the Key Provisions?
 - C. What is the Economic Impact?
- II. Electronic Hazard Communication for Rail Transportation Emergency Response
 - A. What Action is Being Proposed?
 - B. What is PHMSA's Authority for this Proposed Action?
 - C. Does this Proposed Action Apply to Me?
- III. Background
 - A. What is Train Consist Information?
 - B. What is Currently Required Regarding Train Consist Information?
 - C. Is There an Alternative to the Current Train Consist Information Requirements?
 - D. How Does Train Consist Information Affect Rail Transportation Safety?
 - E. How Will Requiring Electronic Train Consist Information Affect Rail Transportation Safety?
 - F. What Does PHMSA Mean by Real-Time?
 - G. How Has PHMSA Engaged Stakeholders?
- IV. Section-by-Section Review of Proposed Amendments
 - A. Sections 171.8 and 180.503
 - B. Section 174.26
 - C. Section 174.28
- V. Regulatory Analyses and Notices
 - A. Statutory/Legal Authority for this Rulemaking
 - B. Executive Orders 12866 and 14094, and DOT Regulatory Policies and Procedures
 - C. Executive Order 13132
 - D. Executive Order 13175
 - E. Regulatory Flexibility Act and Executive Order 13272
 - F. Paperwork Reduction Act
 - G. Unfunded Mandates Reform Act of 1995
 - H. Draft Environmental Assessment
 - I. Privacy Act
 - J. Executive Order 13609 and International Trade Analysis
 - K. National Technology Transfer and Advancement Act
 - L. Cybersecurity and Executive Order 14082
 - M. Severability

I. Executive Summary

- A. *What is the Purpose of the Proposed Regulatory Action?*

The Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to amend the Hazardous Materials Regulations (HMR; 49 Code of Federal Regulations (CFR) parts 171 to 180) in response to congressional mandates and a safety recommendation of the National Transportation Safety Board (NTSB) by requiring *all* railroads transporting hazardous materials to generate in electronic form train consist information, maintain that information off-the-train, update that information in real-time, and provide that information to authorized “emergency response personnel”¹ in advance of their arrival to an accident or incident. As such, railroads operating a train carrying hazardous materials will be required to push that information to state-authorized local first responders needing that information promptly following either an accident involving that train, or an incident involving the release or suspected release of hazardous material from that train. Railroads must also ensure that, in updating that electronic train consist information, they also update hard (printed) copy versions of the same information provided to train crews such that both hard (printed) copy and electronic versions of that information are consistent, accurate, and available when needed most. PHMSA expects this enhanced, proactive approach will ensure that emergency response personnel have timely, accurate, actionable information regarding the hazardous materials being transported and the hazards they may encounter when they are en route to or reach the scene of a rail accident or incident, thereby reducing the risks to surrounding communities and the environment while expediting site remediation, restoration of rail service, and community engagement efforts as investigation activity proceeds. While PHMSA understands the availability of electronic real-time train consist information may not have changed the outcome of the recent Norfolk Southern train derailment in East Palestine, OH, that accident and similar events that have occurred in recent years highlight the importance of providing emergency response personnel with timely, complete, and

¹ PHMSA understands “emergency response personnel” may include any personnel from any of Federal (e.g., PHMSA, Federal Railroad Administration, National Transportation Safety Board, U.S. Environmental Protection Agency, or Federal Emergency Management personnel), or organizations that state or local governments authorize to perform emergency response activities.

accurate information regarding hazardous materials within a train—as any additional time for responders to prepare for what they will encounter may reduce risks and result in significant public safety, commercial, and environmental benefits.

The amendments proposed herein respond to a mandate in section 7302 of The Fixing America’s Surface Transportation Act (FAST Act, Pub. L. 114-94), as amended by the Investment Infrastructure and Jobs Act (Pub. L. 117-58),² to require Class I railroads transporting hazardous materials to generate accurate, real-time, electronic train consist information that must be provided “to State and local first responders, emergency response officials, and law enforcement personnel that are involved in the response to or investigation of an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials.” However, consistent with the broader language within an NTSB safety recommendation following the 2005 collision of two freight trains near Anding, MS, PHMSA proposes extending the NPRM’s proposed requirements to all railroads in light of the risks to public safety and the environment from delay in responding to releases from even smaller, Class II and III railroads on which hazardous materials are transported.

B. *What are the Key Provisions?*

1. *Definition of “Train Consist Information”*: PHMSA proposes to amend the definition of “train consist” at § 171.8 to be recharacterized as “train consist information,” meaning a hard (printed) copy or electronic record of the position and contents of hazardous materials rail cars of a train where the record includes information required by § 174.26. Specifically, the information includes the contact information for a railroad-designated emergency point of contact; the point of origin and destination of the hazardous materials on the train subject to shipping paper information requirements; shipping paper information required by §§ 172.201 to 172.203; and emergency response information required by § 172.602(a). PHMSA

² Codified at 49 U.S.C. 20103 note.

also proposes a conforming revision to § 180.503 to delete a definition of “train consist” that is not used in that part.

2. *Notice to Train Crews:* PHMSA proposes to amend the provision to enhance existing requirements at § 174.26 to provide train consist information (as PHMSA proposes to define that term at § 171.8) in hard (printed) copy to train crews prior to movement of hazardous materials by rail. Specifically, PHMSA proposes to clarify responsibilities for railroads to provide a hard (printed) copy version of train consist information to train crews, for train crews to update that hard (printed) copy version of train consist information, and that the hard (printed) copy of the train consist information must be maintained in a conspicuous location of an occupied locomotive. Railroads must also ensure that train consist information is generated and updated in electronic form, maintained offsite of the train itself, and immediately accessible by the railroad’s designated emergency response point of contact. Railroads must ensure the hard (printed) copy and electronic forms of the train consist information are at all times accurate and consistent.

3. *Emergency Response Information Sharing Requirements:* PHMSA proposes a new section at § 174.28 that will establish real-time, electronic train consist information-sharing requirements for hazardous materials transported by rail. All railroads will need to generate and provide train consist information by electronic means to authorized emergency response personnel that could be involved in the response to—or investigation of—an accident, incident, or public health or safety emergency involving the rail transportation of hazardous material. Information generated and shared in accordance with this section must be accurate, provided in a secure and confidential manner consistent with the intent of the FAST Act, and accessible at any time by authorized emergency response personnel. In the event of either an accident, or incident involving the release or suspected release of hazardous material, railroads operating trains carrying hazardous material will be required to promptly forward that train consist information in

electronic form to state-authorized local first responders within a 10-mile radius of the incident or accident to assist in response and investigation efforts.

C. *What is the Economic Impact?*

PHMSA estimates that the proposed rule would impact seven Class I railroads, 11 Class II railroads, and 585 Class III railroads and estimates the undiscounted total financial impact of the rulemaking over a 10-year analysis period to be about \$46.3 million in 2021 dollars, for an average annual cost of \$4.6 million. The discounted total cost of the rulemaking over the analysis period is estimated to be \$32.8 million in 2021 dollars at a 7 percent discount rate. The benefits of this proposed rule will depend greatly on the effectiveness of having timely access to real-time train consist information to improve emergency responders' ability to respond to rail accidents and incidents, which may be a high-consequence/low-probability event such as the Norfolk Southern train derailment at East Palestine, OH. PHMSA anticipates the proposed rule will improve emergency responders' ability to promptly identify all the hazardous materials cars involved in an accident and to timely assess the threat from a hazardous materials release. PHMSA estimated the annual damage cost of hazardous material incidents on rail to be \$15.6 million in 2021 dollars. Therefore, the proposed rule would have to reduce damage costs by about 30 percent for the monetized benefits of the proposed rule to equal costs. The following table summarizes the annual costs and benefits of the major provisions of the proposed rule in constant 2021 dollars.

Proposed Requirement	Average Annual Cost			Benefit	Breakeven
	Undiscounted	3%	7%		
Amending the definition of train consist information	-	-	-	By aligning the definition of the FAST Act with the language in the existing regulation, this amendment improves regulatory clarity	NA
Amending notice to train crew	\$1,051,753	\$897,167	\$738,708	By improving emergency responders' ability to promptly identify all the hazardous materials involved in an accident and assess the threat from a hazardous materials release, the proposed provisions will reduce injuries and fatalities, material loss and response costs, and delays caused by closures.	Cost-effective if this requirement reduces the consequences of hazardous material incidents by rail by about 27 percent.
New information sharing requirement	\$3,169,069	\$1,025,493	\$494,850		

Total	\$4,220,822	\$1,922,660	\$1,233,557		
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As illustrated by the Norfolk Southern train derailment incident at East Palestine, OH, such accidents can have substantial impacts that are not captured by this preliminary regulatory impact analysis (PRIA)—including the long-term environmental concerns and health risks (both physiological and psychological) for local residents. Research also shows that such accidents can reduce property values which—in turn—can slow down economic activity in the area.³ Additionally, of the 140,000 total route-miles of track in the U.S., 104,000 miles are in rural and tribal areas, suggesting that train-related hazardous material incidents mainly happen in areas populated by disadvantaged communities.⁴ PHMSA acknowledges and considers these unquantified factors in selecting the provisions of the proposed rulemaking.

II. Electronic Hazard Communication for Rail Transportation Emergency Response

A. *What Action is Being Proposed?*

PHMSA proposes to require *all* railroads to generate, maintain externally to the train itself, and update in real-time, accurate train consist information in electronic form, and to make this information available to authorized first responders, emergency response officials, and law enforcement personnel at all times upon request. Further, PHMSA proposes that, in the event of either an accident, or an incident involving the release or suspected release of hazardous material, railroads operating trains carrying hazardous material must promptly forward that train consist information to state-authorized local first responders within a 10-mile radius of the incident or accident. PHMSA also proposes conforming and clarifying revisions to existing HMR requirements governing notification (via hard copy, specially printed, documentation) of train crews for trains carrying hazardous material.

³ For example, a study that examines the impact of 33 derailments involving hazardous material on property values in New York State between 2004 and 2013 found that, on average, a derailment depreciates housing values within a one-mile radius by 5%-8% (Chuan Tang et al. (2020). Rail accidents and property values in the era of unconventional energy production. *Journal of Urban Economics*, 120, <https://doi.org/10.1016/j.jue.2020.103295>

⁴ See PHMSA, “Improving Rail in Rural Communities,” <https://railroads.dot.gov/rural> (last accessed May 3, 2023).

PHMSA proposes a compliance period of one year from the date of publication of a final rule in this rulemaking to allow railroads sufficient time to implement (via conducting training, procurement and installation of pertinent equipment and software, and development of procedures and security protocols) measures for generating, organizing, and providing to Federal, state and local first responders, emergency response officials, and law enforcement personnel train consist information in electronic form. Detailed discussions of changes to sections of the HMR based on this proposed action are provided in Section IV. below.

B. *What is PHMSA's Authority for this Proposed Action?*

PHMSA's statutory authority for this action is twofold. Section of 7302 of the FAST Act, as amended by the Investment Infrastructure and Jobs Act, directs the Secretary to issue regulations to require Class I railroads⁵ transporting hazardous materials to generate accurate, real-time, electronic train consist information that must be provided "to State and local first responders, emergency response officials, and law enforcement personnel that are involved in the response to or investigation of an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials." Specifically, section 7302(a)(1) directs the Secretary to require that Class I railroads include the following data in connection with such electronic, real-time train consist information:

- (1) The identity, quantity, and location of hazardous materials on a train;
- (2) The point of origin and destination of the train;
- (3) Any emergency response information or resources required by the Secretary; and
- (4) An emergency response point of contact designated by the Class I railroad.

⁵ The Surface Transportation Board categorizes rail carriers into Class I, Class II, and Class III based on carrier's annual revenues. The threshold for Class I is a carrier earning revenue greater than approximately \$900 million/year (2022); the threshold for Class II rail carriers is approximately \$40 million/year; and the threshold for Class III rail carriers is any value less than the threshold for Class II railroads.

Section 7302(a)(4) directs the Secretary to prohibit any Class I railroad, employee, or agent from withholding, or causing to be withheld, that information from authorized entities. Section 7302(a)(5) directs the Secretary to establish security and confidentiality protections, including protections from the public release of proprietary information or security-sensitive information, to prevent the release of real-time train consist information to unauthorized persons. Finally, section 7302(a)(6) directs the Secretary to allow each Class I railroad to enter into a memorandum of understanding with any Class II railroad or Class III railroad that operates trains over the Class I railroad's line to incorporate the Class II railroad's or Class III railroad's train consist information.

In addition to the FAST Act mandate, the Federal Hazardous Materials Transportation Act (HMTA; 49 U.S.C. 5101 et seq.) at 49 U.S.C. 5103 gives the Secretary general authority to issue regulations for the safe transportation of hazardous material in commerce.

The Secretary delegates the above statutory authorities to PHMSA at 49 CFR 1.97.

C. Does this Proposed Action Apply to Me?

PHMSA's proposed action applies to *all* railroads in commerce. Although the FAST Act contains an explicit requirement only for Class I railroads transporting hazardous materials to generate and provide accurate, real-time, electronic train consist information, PHMSA proposes—pursuant to its delegated general authority under the HMTA to make regulations for the safe transportation of hazardous materials including those materials transported by rail—to require Class II and Class III railroads (hereafter referred to as “regional and short line railroads”) to also compile, update, and forward (as proposed herein) accurate, real-time train consist information in electronic form. PHMSA notes that this broader approach is consistent with the inclusive language within NTSB safety recommendation R-07-04 issued following the 2005 collision of two freight trains containing hazardous materials near Anding, MS; safety recommendation R-07-04 called on PHMSA to require that *all* railroads immediately provide

real-time train consist information to emergency responders following an accident or incident involving rail transportation of hazardous material.⁶ NTSB’s safety recommendation is consistent with the common-sense proposition that rail transportation of hazardous material is not limited to Class I railroads, and thus the prospect of an accident or emergency is also not limited to those railroads. Regional and short line railroads also transport hazardous material and account for over a third of freight rail in the United States, covering about 50,000 miles of the 140,000-mile U.S. freight rail network. Further, regional and short line railroads are typically the first and last mile of service and often serve as the only connection of rural, small town, and tribal areas of the United States to the nationwide network of railroads—similarly, emergency response personnel within those areas are likely to be the only personnel close enough to the incident or accident to respond quickly. Thus, it is vital for emergency responders and law enforcement in areas served by these railroads to also have access to accurate and real-time train consist information.

III. Background

A. What is Train Consist Information?

The train consist generally refers to the contents of a train including the position of locomotives and cars, as well as both non-hazardous and hazardous freight within those cars. The HMR currently defines at § 171.8 the “train consist” as a written record of the contents and location of each rail car⁷ in a train.

B. What is Currently Required Regarding Train Consist Information?

⁶ NTSB, NTSB/RAR-07/01, “Collision of Two CN Freight Trains near Anding, Mississippi on July 10, 2005” at 48 (Mar. 2007) (NTSB Report), <https://www.nts.gov/investigations/AccidentReports/Reports/RAR0701.pdf>.

⁷ A rail car means a car designed to carry freight or non-passenger personnel by rail, and includes a box car, flat car, gondola car, hopper car, tank car, and occupied caboose.

The HMR at § 174.26(a) requires that railroad train crews must have a paper document that reflects the current position in the train of each rail car containing a hazardous material and must update it to indicate changes in the placement of a hazardous material rail car within the train.⁸ The train crew may update the document by handwriting on it or by appending or attaching another document to it. The train crew must also have a copy of a document showing the information required on shipping papers, including applicable emergency response information. *See* § 174.26(b).

A common practice for railroads in satisfying the above regulatory requirements is capturing all required information in a single hard copy (generally printed) document (sometimes referred to as the “train consist” or “train list”) that is provided to train crews. Some railroads, primarily those designated as Class I, compile information in an electronic database (which could be maintained by the railroad itself, or a third party vendor utilizing the “cloud”) and provide hard copies of some of the database information to the train crew. Those electronic databases may include more information than just the contents and location of a hazardous material rail car in the train: they may incorporate information linking the hazardous material at each location in the train with shipping papers (commonly referred to as bills of lading, required by part 172, subpart C) and emergency response information (required by part 172, subpart G).

C. Is There an Alternative to the Current Train Consist Information Requirements?

Starting in 2019, several railroads applied for and were granted special permits to allow train consist information documentation to be maintained and communicated using only electronic means in connection with specific service routes. To date, seven special permits (SPs) have been issued,⁹ including for six Class I railroads: DOT-SP 20954 (issued to BNSF Railway

⁸ PHMSA notes that the train consist documentation requirements discussed throughout this NPRM complement other hazard communication requirements within part 172 pertaining to marking (subpart D), labelling (subpart E), and placarding (subpart F) of hazardous material packages and transport containers and vehicles.

⁹ Special permits may be reviewed at www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. DOT-SPs 20954, 21059, 21110, 21266, and 21323 are active while DOT-SP 21053 is active under pending renewal,

Company); DOT-SP 21046 (issued to CSX Transportation and recently expired); 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). A single special permit (DOT-SP 21266) has been issued to a short line railroad: Richmond Pacific Railroad. The special permits provide operational controls and reporting requirements including the following items of interest:

- (1) Train consist information must be readily available by electronic means to government officials (e.g., emergency response personnel);
- (2) Updates of the train consist information must be done electronically and in real-time;
- (3) More than one method of electronic information-sharing must be available to first responders should the primary method (i.e., cellular network devices) not work, as well as a redundant communication option should electronic service be unavailable;
- (4) Upon notification of an incident to response authorities, the train consist information must be provided;
- (5) Training must be provided to first responders along portions of a route without cellular service on methods of communication during an incident; and
- (6) Incidents where information was shared electronically with first responders must be documented and a consolidated report must be provided to PHMSA discussing successes and any corrective actions.

PHMSA is not aware of any negative impacts associated with railroads operating under these special permits authorizing electronic train consist information, and based on incident experience, has had positive outcomes from the practice. For example, BNSF Railway Company

along with several party-to applications, and DOT-SP 21046 expired by its terms. PHMSA also notes that although Norfolk Southern is a grantee of a special permit, the routes that they included in their application did not include the route along East Palestine, OH. PHMSA will consider in any final rule in this proceeding whether amendment or revocation of those previously-issued special permits would be (based on the content of that final rule) warranted. That said, the PHMSA seeks comment on how the special permits may be impacted by the proposed regulatory amendments in this NPRM.

has reported four occasions where electronic train consist information was shared with first responders to assist in prompt emergency response.

D. How Does Train Consist Information Affect Rail Transportation Safety?

Train consist information aids Federal and state first responders, emergency response officials, and law enforcement personnel in ensuring coordinated action to assess an accident, incident, or public health or safety emergency involving hazardous materials in rail transportation, which in turn informs the appropriate response action (e.g., fire suppression media) precisely when every second counts. Those officials typically rely heavily on this information—along with hazard communication required pursuant to part 172 requirements pertaining to marking (subpart D), labelling (subpart E), and placarding (subpart F)—for timely awareness about hazardous material on a train in emergency situations. Indeed, because placarding may be damaged or inaccessible (due to fire, hazardous material release or orientation of the rail car), train crews may be injured or unavailable, or wireless telecommunications service may be limited, the hard copy form of train consist information can often be the only accurate basis of knowledge on the hazardous material within a train. Further, because emergency response may involve personnel from different and distant jurisdictions converging on a single location at different times,¹⁰ there is a premium on having a common understanding of the hazardous material on the train as coordinated response efforts commence. Timely, accurate train consist information also ensures investigation efforts by Federal and state personnel can promptly identify systemic safety issues meriting broader dissemination and address community concerns regarding the availability and reliability of information following an accident or incident.

¹⁰ PHMSA notes that if an incident or accident occurs in a rural, small town, or Tribal areas, local emergency response personnel—may be the only personnel who can respond promptly to the incident or accident.

An example taken from a 2007 NTSB investigation report¹¹ underscores the importance of the availability of timely, accurate train consist information documentation. In the early morning hours of July 10, 2005, two Canadian National Railway Company (CN) trains transporting mixed freight including hazardous material collided head-on in Anding, MS. The collision resulted in the derailment of six locomotives and 17 cars. About 15,000 gallons of diesel fuel were released from the locomotives and resulted in a fire that ended up burning for roughly 15 hours. There also was a limited release of hazardous materials from venting tank cars; however, that did not contribute to the severity of the accident. Two crewmembers from each train were killed in the accident and the train consist information aboard the locomotives was destroyed. Nearly 100 residents from the surrounding community were evacuated from the area as a precaution. The accident ultimately resulted in ca. \$10 million (in 2005 dollars) of property damage and environmental clean-up costs.

When emergency responders arrived on the accident scene within a half-hour of the collision, it was dark; the fire was intense, and heavy black smoke prevented visual identification of all the hazardous material tank cars in the wreckage. The first CN official arrived at the scene an hour after the collision and told emergency responders that he did not have any train consist information documentation or knowledge about the hazardous materials on either train. The absence of train crews to pass along train consist information and the inability to access the information on the locomotive—i.e., the lack of immediately available train consist information—severely restricted the ability of emergency responders to make a quick assessment of the potential for a hazardous materials release and thus to respond appropriately.

The CN official obtained accurate train consist information on the northbound train via cell phone from the CN dispatcher and provided it to emergency responders, but cell phone service was disrupted before any information about the southbound train could be obtained. Without a document for the southbound train, unsuccessful attempts were made by response

¹¹ NTSB Report at 2-10.

personnel on-scene to identify potential hazardous material threats based on placarding and tank car stenciling—i.e., visible hazard signage and markings on the rail cars. Over two-and-a-half hours after the collision, another CN employee that had traveled from Jackson, MS (roughly 45 minutes away from the accident) delivered copies of the train consist information for both trains—but the information he delivered for the southbound train did not accurately reflect the actual makeup of the southbound train at the time of the accident. It was nearly another hour (almost four hours since the collision) before CN officials and emergency responders were able to develop an accurate listing of the derailed cars from the southbound train involved in the fire by visually surveying the scene. Only after being able to determine which hazardous materials were being conveyed on the train was it safe for emergency responders to begin moving cars and applying aqueous film forming foam to suppress the fires at the site. It would be roughly fourteen hours after the collision before the fire was declared suppressed.

In reviewing the collision and emergency response efforts, the NTSB concluded that the lack of timely information on the contents of each train—between the loss of train crew personnel, the damaging of stenciling and hazard placarding, and CN’s failure to provide timely and accurate train consist information for both trains (particularly the southbound train)—significantly hampered emergency response efforts. The NTSB consequently issued safety recommendation R-07-04 calling on PHMSA to require that *all* railroads immediately provide real-time train consist information to emergency responders following an accident or incident involving rail transportation of hazardous material.¹²

The importance of timely, accurate train consist information is also underscored by the recent Norfolk Southern train derailment in East Palestine, OH. Although NTSB’s investigation of that derailment is ongoing, the NTSB noted during a press conference announcing their preliminary findings on February 23, 2023, that many of the hazardous materials placards

¹² See NTSB Report at 48 (“With the assistance of the Federal Railroad Administration, require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.”).

displayed on the tank cars melted in the ensuing fire following the derailment.¹³ Firefighters who responded to the incident from more than 30 minutes away also noted that they didn't gain access to information about the train consist until well after they arrived on scene. PHMSA notes that in such scenarios, emergency response personnel may have to rely on the train consist information provided by the train crew and the train operator as they were conducting their initial assessment of the incident and planning response actions. Notably, too, the East Palestine, OH accident exemplifies how investigation efforts by regulatory officials into potential systemic issues revealed by an incident (or to assuage community anxieties regarding the response effort) can often occur simultaneously with incident response efforts at the site.

E. How Will Requiring Electronic Train Consist Information Affect Rail Transportation Safety?

The HMR currently imposes some documentation requirements pertaining to hazardous material within a train. Specifically, each of §§ 171.8 (“written record”) and 174.26 (“copy of a document”) contemplate that a “train consist” consists only of a printed, hard copy relating only high-level information (the “contents and location of each rail car in a train”) pertaining to any hazardous materials being transported. And although provisions elsewhere in the HMR governing emergency response (specifically, part 172, subpart G) contemplate that train crews will need to have, or have “immediate” access to, more fulsome information (regarding hazardous material technical name, emergency response information, emergency response telephone numbers, etc.), § 172.602(b) similarly contemplates that information will be in hard copy (“printed”) form rather than electronic form.

These limited documentation requirements can contribute to delays in emergency response actions and potentially inaccurate information being provided to emergency response

¹³ NTSB, Preliminary Report No. RRD23MR005, “Norfolk Southern Railway Train Derailment with Subsequent Hazardous Material Release and Fires – East Palestine, OH – Feb. 3, 2023 (Feb. 23, 2023), <https://www.nts.gov/investigations/Documents/RRD23MR005%20East%20Palestine%20OH%20Prelim.pdf>.

personnel at precisely the same moment when accurate, timely information is critical to response efforts. The success of any response effort turns on the accuracy of information regarding the precise hazards confronting emergency response personnel and the surrounding community. But as illustrated by both the Anding, MS collision and the East Palestine, OH derailment, emergency response personnel may not be able to rely on hazard communication placarding or stenciling to know with confidence whether, and in which car, a train is transporting hazardous material as those hazard communication tools may have been obscured (e.g., through burning) or been rendered inaccessible. Nor, moreover, can the emergency response personnel necessarily rely on the train crew or the hard copy of the train consist information they may have onboard; as in the Anding, MS collision, train crews can become incapacitated and hard copies of the train consist information may perish in the incident. Further, even if those resources are available, they may only be available in the form of a single document or a limited number of persons on the train crew, thereby creating the potential for conflicting information or bottlenecking of critical information within (potentially multi-disciplinary and multi-jurisdictional) response efforts.¹⁴ Additionally, the fact that emergency response personnel converging on the site from multiple jurisdictions may not have access to that information until they arrive forfeits opportunities to begin reviewing pertinent immediate actions and coordinating response efforts while en route to the site—adding more delay in the critical moments immediately following an accident or incident.¹⁵ Lastly, because investigation efforts often proceed nearly simultaneously with emergency response, delays in obtaining accurate train consist information can hamper investigation efforts to identify systemic issues or even an imminent hazardous materials transportation safety hazard that could result in similar incidents elsewhere or to address community concerns regarding the adequacy of response efforts.

¹⁴ PHMSA submits that some of the same limitations from reliance solely on hard-copy, locally-maintained train consist information could also arise in connection with reliance on electronic copies (e.g., on an e-tablet) maintained by train crews.

¹⁵ This risk can be particularly acute if the accident or incident occurs in a remote rural, small town, or Tribal area, as local first responders may be the only personnel who can quickly respond to the accident or incident.

PHMSA expects that maintaining electronic train consist information away from the train, and which is updated in real-time as a train's hazardous contents change, address many of those shortcomings from reliance solely on hard copies of that information. Remote (e.g., in the "cloud") compilation and maintenance of an electronic copy of train consist information that is synced in real-time with the hard (printed) copy of that information maintained by train crews per § 174.26 promotes the accuracy of both electronic and hard (printed) copy versions of that information, each of which can be checked against the other. And to the extent that the compilation and updating of that electronic record occurs automatically it can minimize the introduction of human error into either the hard or electronic versions of the train consist information. Additionally, as illustrated by the Anding, MS collision, hard copy documents may be destroyed or inaccessible, or train crews may become injured, rendering them ineffective for the exchange of information to emergency response personnel; similarly, reliance on a single hard copy document or a limited number of personnel risks bottlenecking or conflicting accountings of critical information. In contrast, compilation and maintenance remotely of an electronic version of train consist information will provide necessary redundancy for a railroad's ability to exchange critical information with emergency response personnel, promising distribution of critical information that is more uniform, fulsome, well-distributed, and timely than reliance on hard copies and train crew personnel alone. Additionally, remotely-maintained, electronic train consist information promises earlier coordination of emergency response efforts; emergency response personnel commuting to an incident site from various jurisdictions may be able to access electronic train consist information (as well as pertinent training and immediate actions) en route, saving precious time in identifying immediate actions and coordinating response efforts. Lastly, electronic train consist information can also facilitate investigation efforts in parallel with emergency response efforts, thereby allowing more timely identification and remediation of systemic issues across the industry, as well as helping to assure affected communities of the adequacy of response efforts.

PHMSA notes that the experience with the special permits authorizing limited use of electronic approaches to maintaining train consist information discussed in Section III.C above provides additional evidence of the potential safety-enhancing benefits of requiring use of such tools more broadly as proposed in this NPRM. PHMSA also notes that stakeholders within the emergency response community have also submitted comments in this rulemaking proceeding calling on PHMSA to codify a requirement for electronic, real-time train consist information to supplement existing hard copy documentation requirements.¹⁶

F. *What Does PHMSA Mean by Real-Time?*

A plain language meaning of real-time is simultaneous (or nearly simultaneous) with the time which something takes place. PHMSA interprets the references in the FAST Act instruction and NTSB safety recommendation R-07-04 to “real-time” train consist information to have a dual meaning: (1) that the update of train consist information during transportation should occur at the time changes to the hazardous material on the train are being made, thereby ensuring the accuracy of information; and (2) that the required train consist information is provided to authorized first responders at the time a response to or investigation of an accident, incident, or public health or safety emergency is occurring. This latter element in turn means that the required electronic train consist information should be provided to and is accessible to authorized personnel *prior* to an accident or incident—and pushed promptly following initiation of an accident or incident to emergency response personnel needing that information to identify potential hazardous material threats and take appropriate measures and commence investigation activities.

¹⁶ See, e.g., Intl. Assn. of Fire Chiefs, Doc. No. PHMSA-2016-0015-0009, “Comments on PHMSA’s Advanced Notice of Proposed Rulemaking [under RIN 2137-AF21]” at 3 & 6 (Apr. 19, 2017) (IAFC Comments). The IAFC comments urged a defense-in-depth approach utilizing both electronic and hard copy train consist information because exclusive reliance on electronic train consist information maintained remotely may be impractical in rural, small-town, or Tribal areas where internet connectivity is limited or unreliable.

Although PHMSA understands that current HMR requirements require operators to update hard (printed) copy train consist information as there are changes to that information, in practice that hard copy-exclusive approach can introduce the potential for human error; often a member of the train crew (in most circumstances, the engineer) must update by hand the printed, hard copy of the train consist information in the crew's possession to provide an accurate listing of the position of hazardous material cars. Additionally, PHMSA understands that current HMR regulations do not contain specific requirements for railroads to either (1) make accurate, electronic, real-time train consist information available to authorized emergency response personnel at all times so they have it in advance of an accident or incident, or (2) take affirmative steps to promptly forward that same information to state-authorized local first responders following either an accident involving a train carrying hazardous material, or an incident involving a train carrying hazardous material where a release of that hazardous material has occurred or is suspected. As discussed in Section III.B. above, the HMR currently requires the use of hard copies that may not lend themselves to real-time updating or transfer to a person off the train. Existing HMR requirements also lack specificity regarding railroads' obligations to proactively and timely forwarding of that information to first responders, emergency response officials, or law enforcement personnel; rather, the HMR speaks in terms of making that information "accessible" to train crews (§ 172.602(c)); merely "available" to first responders, emergency response officials, or law enforcement personnel (§ 172.600(c)); in the possession of train crews (§ 174.26(a)); and submitted to the National Response Center "as soon as practicable but no later than 12 hours after the occurrence of any incident . . ." (§ 171.15).

PHMSA expects that implementation of equipment and procedures to enable real-time updating of electronic train consist information—as well as more explicit requirements for railroads to make that information available to emergency response personnel at all times or pushed to them following an accident or incident—will be practicable for Class I, regional and short line railroads. As a general matter, PHMSA submits that those requirements proposed in

this NPRM should not come as a surprise to any railroad transporting hazardous material as the Section 7302 FAST Act mandate (focused by its terms on Class I railroads) dates from 2015 and NTSB safety recommendation R-07-04 (which contains no such limitation to Class I railroads) dates from 2007.¹⁷ Nor for that matter, are the requirements proposed herein on the cutting edge of technology—the sort of equipment and procedures likely needed for implementation are likely to be incremental adaptations of supply chain management software, equipment, and procedures employed in ordinary course by a variety of retail providers and logistics companies for tracking goods within national and global supply chains (of which the railroads themselves are a critical component). Indeed, PHMSA submits that the fact that commercial entities can implement cost-effective, real-time status tracking procedures and equipment for non-hazardous goods, suggests that reasonably prudent railroad operators would be incented to employ similar equipment and procedures when transporting materials known to be hazardous to public safety and the environment.¹⁸

Nor, for that matter, would railroads' implementation of the requirements proposed in this NPRM be against a blank canvas. As discussed above, much of the train consist information that PHMSA contemplates would be generated, maintained, and provided in electronic form is largely already maintained by the railroads pursuant to existing HMR requirements in printed, hard copy form; and PHMSA's proposed requirement that such information be readily accessible in advance of an accident or incident, and forwarded to state-authorized local first responders electronically promptly following an accident or certain incidents, is similar to existing HMR requirements to make certain information available to emergency response personnel and train crews. Additionally, as discussed in Section III.C above, a number of the Class I railroads (and at least one regional railroad) have already demonstrated the feasibility of compiling electronic

¹⁷ Any requirements would, of course, not be binding on railroads until even later in the future — namely, after any final rule in this proceeding is published and subsequently becomes effective.

¹⁸ PHMSA also submits that such incentives would have been underscored by the significant environmental consequences, increased regulatory oversight, legal liability, and loss of community goodwill as a result of the East Palestine, OH derailment.

real-time train consist information pursuant to special permits along specific routes; those special permits contain requirements for updating and prompt relay of that electronic train consist information to emergency response personnel in the event of an accident or incident.

PHMSA also submits that railroads may be able to leverage existing software platforms to satisfy this NPRM's proposed electronic train consist information maintenance, updating, and forwarding requirements. One such platform suggested by stakeholders in this rulemaking proceeding is the AskRail® system developed by the American Association of Railroads (AAR), the International Association of Fire Chiefs, the Operation Respond Institute, and others.¹⁹ This platform—which is available for use in both desktop and mobile device applications—provides authorized emergency response personnel with accurate, continuous access in electronic format to most of the train consist information contemplated by PHMSA's proposed revisions, including the following: the proper shipping name and United Nations ID number of the hazardous material; packing group and placarding requirements and links to pertinent Emergency Response Guidebook (ERG) and safety data sheets; quantity and location of the material on the train; car type, DOT specification, and location within the consist (i.e., the train); and the emergency response point of contact for the railroad. Changes in train consist information are uploaded to the AskRail® system from central processing centers operated by the railroads or vendors based on data delivered via any of the following: (1) voice reports from train crews, (2) digital communications with mobile devices operated by train crews, or (3) digital communications with automatic equipment identification (AEI) systems (discussed further below). To the extent that the AskRail® system (or any alternative platform used in complying with the NPRM's proposed requirements) may lack certain information (e.g., origin-destination information), functionalities (in particular, the ability for railroads to forward information to pertinent emergency response personnel in the event of an emergency) or liberal access requirements, PHMSA expects that

¹⁹ See IAFC Comments at 3, 6; AAR, Doc. No. PHMSA-2016-0015-0007, "Comments Submitted by AAR re FAST Act Requirements for Real-Time Train Consist Information by Rail" at 1, 3, 7 (Apr. 19, 2017) (AAR Comments) (recommending use of AskRail® with respect to Class I railroads only).

such systems could be designed or modified and railroads could proactively engage the response community to address those concerns. Similarly, although PHMSA understands that current use of AskRail® system may be largely limited to Class I railroads,²⁰ it is unaware of any fundamental bar to modification of that system (or for that matter, the design or modification of alternative systems) to accommodate increased use by regional and short line railroads.²¹ PHMSA itself commissioned a pilot program that in 2020 demonstrated the technical feasibility of integration of a leading proprietary commercial train consist information platform for Class II and III railroads (the Wabtec Train Management System) with the AskRail® system.²²

Some railroads may also opt to reduce the risk of human error by employing automatic means of updating the electronic train consist information. Some railroads already employ such AEI systems consisting of identification tags mounted on each train car (locomotives, end-of-train units, rail cars, and intermodal containers) and installed, trackside AEI readers (i.e., antennas) or portable, handheld AEI readers that record and relay switching of cars to the railroad's computer system. Installed, trackside AEI readers are placed at key locations such as the entrances and exits of rail yards and identify cars on a train by the tags on the cars as they pass and automatically relay information back to the railroad's computer system to update the electronic train consist information. Appropriate placement of installed, trackside AEI readers is imperative for ensuring accurate train consist information is relayed to the railroad computer systems; for example, in the 2005 Anding, MS collision, a contributing factor in the confusion regarding the contents of the southbound train was that the last change in the train consist occurred between installed, trackside AEI readers.²³ PHMSA submits, though, that challenges

²⁰ See ASLRRA, Doc. No. PHMSA-2016-0015-0006, "Docket No. PYHMSA-2016-0015 (HM-263): FAST Act Requirements for Real Time Train Consist Information by Rail" 3-4 (Apr. 19, 2017) (ASLRRA Comments).

²¹ See AAR Comments at 3 ("Currently, AskRail® has the ability to show single car information for all Class II and III railroads. If they choose to do so, Class II and III railroads can upload their train consist information so that it is available through the app . . ."). The AAR echoed ASLRRA comments that extending AskRail® to Class II and III railroads would necessarily involve compliance costs.

²² See PHMSA, Notice ID No. 693JK320P000014, "Statement of Work and Sole Source Justification: Transportation Management Consist Information" (Award Date May 14, 2020). PHMSA is in the process of completing the concluding documentation for that project and will post those materials to the rulemaking docket as soon as practicable.

²³ NTSB Report at 7.

associated with identifying proper placement of installed, trackside AEI readers could be mitigated somewhat by timely supplementation with one or more of portable, handheld AEI readers and voice reports by train crew personnel of changes to the hard (printed) copy train consist information.

G. *How Has PHMSA Engaged Stakeholders?*

PHMSA and the Federal Railroad Administration (FRA) sought input from stakeholders on the topic of electronic train consist information as part of the Rail Safety Advisory Committee (RSAC) Hazardous Materials Issues Working Group. The RSAC is a Federal advisory committee established by FRA and is governed by the process and transparency requirements of the Federal Advisory Committee Act (Pub. L. 92-463). The RSAC develops recommendations for certain new regulatory standards, through a collaborative process, with all segments of the rail community working together to find solutions to safety issues. The RSAC in turn has assembled a Hazardous Materials Issues Working Group to develop recommendations for changes and updates to the regulations for rail transportation of hazardous material.

In 2016, the Hazardous Materials Issues Working Group (hereafter referred to as “Working Group”) met several times to discuss updates to the HMR’s rail transportation safety requirements.²⁴ On two occasions, the Working Group discussed the issue of accurate and real-time electronic train consist information and whether existing technology could achieve the accurate and real-time exchange of train consist information. Several stakeholders contended that the AskRail® system could provide the information required by the FAST Act. However, representatives from industry asserted that some information required by the FAST Act (specifically, origin and destination information) may not be relevant in an emergency response situation and did not see a need to include these data in AskRail® entries; similarly, industry representatives also asserted that there was limited safety value in emergency response personnel

²⁴ Meeting minutes from HMIWG meetings are available in the public docket for this rulemaking.

having real-time electronic train consist information unless there had actually been an accident or incident. Some stakeholders also expressed concern that the limited access rights currently authorized in the AskRail® system could limit its effectiveness, as the current version of the AskRail® system requires rigorous security vetting for would-be users. In the event of an accident or incident at a location where authorized local first responders, first responders, emergency response officials, and law enforcement had not been authorized access to the AskRail® system in advance, access to train consist information may be unavailable to them through AskRail®.

Additionally, the Working Group discussed the prevalence of installed, trackside AEI readers and whether those AEI readers can provide accurate, real-time updates to train consist information. That discussion highlighted that a challenge in increasing reliance on installed, trackside AEI readers to provide accurate, real-time updates to electronic train consist information is that their placement across the nation's railroad system is not uniform; all participants noted that more frequent and uniform placement of AEI readers throughout the nation's railroad system would be required before that equipment could be relied on to provide accurate, real-time updates to electronic train consist information. Although the Working Group discussed a variety of potential approaches to address this concern—including supplementation by train crew voice reports and a standardized requirement for placement of installed, trackside AEI readers within three miles of each train yard (i.e., the location where rail car switching operations are likely to be completed)—no consensus was reached on any one solution or suite of solutions. Further, at least one stakeholder—American Short Line and Regional Railroad Association (ASLRRRA), the industry trade group representing regional and short line railroads—strongly opposed any suggestion of a regulatory requirement for installed, trackside AEI readers in implementing FAST Act requirements.

Following those meetings, PHMSA in 2017 issued an Advance Notice of Proposed Rulemaking (ANPRM) soliciting comment on a number of questions on implementation of the

FAST Act’s then-effective mandate to employ “fusion centers” as clearinghouses for receiving from railroads, and forwarding to emergency response personnel, electronic real-time train consist information.²⁵ Although many of the questions posed by PHMSA and written comments received from stakeholders were focused on implementation mechanics specific to fusion centers, a number of entities submitted comments speaking to other implementation dimensions of the FAST Act mandate. Specifically, AAR and ASLRRA²⁶ repeated contentions made in the Working Group discussions regarding the limited value of origin-destination information, or 24/7 availability of electronic real-time train consist information for emergency response efforts. Their respective comments also highlighted potential implementation challenges (pertaining to cost, gaps in internet connectivity) associated with use of portable, handheld AEI readers, as well as the existing gaps in coverage for installed, trackside AEI readers. However, the AAR comments ultimately concluded that electronic train consist information could be a valuable option for improving emergency response efforts, and the AskRail® system could be extended beyond Class I railroads—even as they argued against mandating electronic real-time train consist information as a substitute or supplement for hard copy documentation and bemoaned the potential costs of ensuring regional and short line railroad participation in the AskRail® system. IAFC also submitted comments “strongly” arguing for forwarding of electronic train consist information in the event of an accident or incident, noting that the AskRail® system could—when supplemented by existing hard copy documentation requirements—serve that purpose.²⁷

IV. Section-by-Section Review of Proposed Amendments

Parts 171 and 180

A. Sections 171.8 and 180.503

²⁵ PHMSA, “Advance Notice of Proposed Rulemaking - Hazardous Materials: FAST Act Requirements for Real-Time Train Consist Information by Rail,” 82 FR 6451 (Jan. 19, 2017). The fusion center framework was subsequently abandoned in amendments to the FAST Act by the Investment Infrastructure and Jobs Act.

²⁶ ASLRRA, “Docket No. PHMSA-2016-0015 (HM-263): FAST Act Requirements for Real-Time Train Consist Information by Rail” (Apr. 19, 2017). The ASLRRA comments explicitly endorsed the AAR Comments.

²⁷ IAFC Comments at 6.

Section 171.8 defines key terms used in the HMR. A train consist is defined in this section as a “written record of the contents and location of each rail car in a train”²⁸—which PHMSA and industry have historically understood to refer to the hard (printed) copy documentation maintained and updated by train crews pursuant to § 174.26(a). Train crews are also obliged by § 174.26(b) to maintain a hard copy of certain “emergency response information” specified in part 172, subpart G, as well as other shipping paper information specified in part 172, subpart C.

As discussed in Section II.B above, section 7302 of the FAST Act directs (consistent with NTSB safety recommendation R-07-04), that PHMSA require railroads to (in real-time) generate, maintain, update, and share with emergency response personnel, certain real-time train consist information in electronic form. That list of information specified in the FAST Act is by-and-large consistent with the suite of safety-critical information in each of the current definitions of “train consist” at § 171.8 (which in turn is aligned with the information contained with the notice provided to train crews at § 174.26) and the “emergency response information” specified at § 172.602 (which information must also be immediately available to train crews pursuant to § 174.26(b)). PHMSA, therefore, proposes to replace the term “train consist” with the term “train consist information” at § 171.8, to mean a record of information (as required by § 174.26) of the position and content(s) of hazardous materials rail cars of a train. Specifically, the information includes contact information for a railroad-designated emergency point of contact; the point of origin and destination of hazardous materials that is subject to shipping paper requirements on the train; shipping paper information required by §§ 172.201 to 172.203; and emergency response information required by § 172.602(a).²⁹ The information must be maintained in both hard (printed) copy and electronic forms. PHMSA also proposes deletion of the mirror definition

²⁸ Mirror language appears in the definition of the same term at § 180.503.

²⁹ PHMSA notes that its proposed definition of “train consist information” would not encompass hazardous material excepted from shipping paper requirements pursuant to § 172.200 because of the low risk such transportation generally poses to public safety and the environment.

of “train consist” at § 180.503, as that section is the only place in which that term appears within part 180.

PHMSA notes that this proposed approach ensures that implementation of the FAST Act’s requirements regarding the content and form of real-time train consist information will be performed in a manner that builds on—rather than disrupts—railroad compliance strategies with existing HMR requirements. With respect to the proposed new term “train consist information” the proposed required information largely consists of the information that railroads are already obliged by the HMR to provide in hard (printed) copy to their train crews and to make available to emergency response personnel in connection with hazardous materials that are subject to shipping paper requirements. Although the FAST Act contemplates the compilation, updating, and transfer to emergency personnel of an additional species of information—the origin and destination of hazardous material on the train, and the contact information for a railroad-designated emergency point of contact—PHMSA understands that information is accessible to the railroads. Origin and destination information is an important commercial term of service, in addition to being a critical piece of information to emergency response personnel should gaps (e.g., from inaccuracies, loss, or inaccessibility) in other train consist information require quick reverse-engineering by emergency response personnel of the hazardous material carried by a train involved in an accident or incident. Similarly, the railroad itself would designate its emergency point of contact. And although PHMSA understands that one potential compliance tool (namely, the AskRail® system) may not currently contain information on the origin and destination of hazardous material on a train, it expects that (based on the widespread use of sophisticated, real-time tracking of goods generally discussed at Section III.F. above) that modification of that system (or design or modification of an alternative platform) to integrate that functionality is practicable. However, the positive experience associated with use of electronic train consist information pursuant to special permit (discussed at Section III.C. above) is also evidence of the proven safety value of electronic, real-time train consist information.

With respect to a railroad’s identification of a designated emergency point of contact, PHMSA is less concerned with the specific title of that individual than it is in ensuring that (1) the contact information provided is complete—to include the name, title, phone number and email address, (2) that individual is accessible at all times (24/7) the train is in transportation in the event of an accident or incident involving rail transportation of hazardous material (and then following an incident or accident until emergency response efforts have completed), and (3) that individual has immediate access to the electronic version of the train consist information for the train involved and the contact information for state-authorized local first responders required under proposed § 174.28. PHMSA notes that its above expectations regarding availability of, and capacity/knowledge of the railroad’s designated emergency response contact are largely consistent with existing HMR emergency response telephone number requirements at § 172.604. PHMSA does not expect that person must necessarily be an employee of the railroad—provided a third party designee is available as contemplated above, and has immediate access to the information specified above.³⁰ PHMSA notes that this proposed requirement (which implements a mandate in Fast Act Section 7302(a)(1)(A)(iv)) provides additional defense-in-depth should emergency response personnel encounter delays in accessing electronic, real-time train consist information (pursuant to proposed § 174.28(a)) themselves, or railroad personnel fail to “push” electronic, real-time train consist information to state-authorized local first responders in a 10-mile radius of the accident or incident (pursuant to proposed § 174.28(b)).

PHMSA notes that its proposed approach of defining “train consist information” to accommodate *both* hard (printed) copy and electronic forms is essential to providing defense in depth ensuring safety-critical information is generated, updated, and available to emergency response personnel during an accident or incident. As discussed in Sections III.E.-F. above, electronic train consist information updated in real-time offers significant safety benefits

³⁰ PHMSA further notes that the person designated as the railroad’s emergency response point of contact may also be responsible for “pushing” electronic train consist information to emergency personnel pursuant promptly during an incident or accident proposed § 174.28.

compared to exclusive reliance on other sources of information—train crew statements, hard copy documentation, placarding and other HMR-mandated hazard communication tools—that can perish, be inaccessible, or prove unreliable in the critical moments immediately after an accident or incident. But, as commenters on the ANPRM noted (see Section III.G above), reliance on electronic train consist information alone would entail its own safety risks. For that reason, PHMSA understands that the regulatory definition of real-time “train consist information” should envision that information will be maintained in *both* hard (printed) copy and electronic forms. PHMSA acknowledges that this approach could entail some version control risks (from conflicts between the electronic and hard copy forms of train consist information) whose reduction by way of synchronization of hard copy and electronic forms could increase administrative and compliance burdens on railroads. However, PHMSA expects that those risks (which in any event could be controlled by the railroads) would be justified when compared against the anticipated safety benefits obtained from (1) improved accuracy from being able to verify train consist information in hard copy form against electronic records (and vice-versa), and (2) enhanced confidence that emergency response personnel will have access to accurate, safety-critical train consist information in some form, regardless of the circumstances of the accident or incident.

Part 174

B. *Section 174.26*

Section 174.26 currently requires railroads to provide each train crew a printed, hard copy document (i.e., a record of information) reflecting the current position in the train of each rail car containing a hazardous material. This provision also requires the train crew to update the document to indicate changes in the placement of a hazardous material rail car within the train. Additionally, § 174.26(b) requires that the train crew must have a hard copy of a document showing the information required by part 172 (e.g., shipping paper information), and emergency

response information specified in § 172.604. The HMR’s emergency response information standards at part 172, subpart G also contain requirements that (1) pursuant to § 172.600(c), railroads and other carriers make that hard copy information immediately available for use at all times hazardous material is present—by, for example, making it immediately available to a representative of a Federal, state, or local government agency responding to an incident involving a hazardous material or conducting an investigation that involves a hazardous material; and (2) pursuant to § 172.602(c)(1), railroads must maintain hard copy emergency response information that is immediately accessible to train crews in the event of an accident or incident involving hazardous materials.

Consistent with the FAST Act section 7302 mandate, PHMSA now proposes to supplement those existing requirements by amending § 174.26 in several ways to ensure that train consist information held in hard (printed) copy by train crews for all railroads is itself updated in real-time for accuracy based on changes in the hazardous material within the train consist, and that train crews ensure that their locally-maintained hard copies are at all times synced in real-time with electronic versions of the train consist information maintained off the train. Those proposed revisions to § 174.26 are as follows: (1) replace existing references in § 174.26 to the hard copy “document” memorializing train car position in this provision with references to the hard copy versions of the “train consist information” proposed at § 171.8; (2) specify the information to be included as part of the “train consist information;” (3) specify that a hard (printed) copy version of train consist information must be provided to train crews before initial train movement and maintained in a conspicuous location of an occupied locomotive during transportation, i.e., when the train crew is aboard the locomotive; (4) specify that train crews must update that local, hard (printed) copy version to reflect changes in the train consist information at intermediate stops before the train re-commences movement from those stops; and (5) specify that the train crews must also, as soon as practicable, update or notify the railroad to update the electronic form of train consist information maintained off the train to synchronize

with the local hard (printed) copy of the train consist information employing (as appropriate) electronic devices compliant with the requirements of 49 CFR part 220. Train crews may use electronic or radio communications to notify the railroad to update the electronic train consist information.³¹ This will ensure the accuracy of the train consist information.

PHMSA expects that its proposed regulatory amendments to § 174.26 are critical for supporting use of electronic, real-time train consist information as required by the FAST Act. As discussed at greater length in Section III.D. above, the locally maintained and updated, hard copy documents in the possession of train crews have been—for better or worse—the primary information relied on by emergency response personnel in identifying the hazards from historical rail accidents and incidents and executing immediate response actions. For this reason, PHMSA proposes that hard (printed) copy version of electronic train consist information is kept in an occupied locomotive such that train crews can immediately access that information and provide it to emergency response personnel. But electronic train consist information is not itself a cure-all; gapped or intermittent internet or phone connectivity in rural, small-town, and tribal areas can limit each of (1) the ability of AEIs to capture material changes in the train consist information, (2) the ability of train crews to report changes in the same by voice, or (3) access to electronic train consist information by emergency response personnel.³² For these reasons, stakeholders in the emergency response community such as IAFC have called on retention of the train crew's hard copy requirement to backstop the accuracy of electronic train consist information. Similarly, the implementation costs and deployment delays associated with integration of more widespread use of AEIs to automatically update train consist information

³¹ PHMSA also notes that railroads may comply with this provision by installation of trackside AEI readers that update electronic train consist information automatically without train crew action. However, should a railroad opt for such a system train crews would still be responsible for updating the local, hard copy version of the train consist information.

³² PHMSA submits that similar concerns caution against reliance on mobile devices (e.g., tablets) with locally-saved versions of electronic train consist information as a substitute for hard (printed) copy versions maintained by train crews pursuant to the proposals in this NPRM. However, PHMSA solicits comment on whether permitting such substitution in a final rule in this proceeding would have both meaningful safety and compliance cost advantages compared to hard copy versions.

could be better managed by railroads if the HMR would continue to contemplate that train crews themselves could “call in” changes to train consist information as they occur and are memorialized on the hard copy version of train consist information. PHMSA also notes that its proposed multi-layered approach to ensuring train consist information is at all times accurate and consistent across hard copy and electronic media will ensure that train crews have situational awareness of changes in the train consist information that may be lost were all updates made automatically to off-train electronic train consist information.

PHMSA notes that its proposed revisions to § 174.26 would be applicable to *all* railroads—not just the Class I railroads explicitly addressed by the section 7302 Fast Act mandate. This approach is consistent with the current, broad scope of § 174.26, and as explained in Section II.C. above, this approach is also consistent with NTSB safety recommendation R-07-04, which was not limited to Class I railroads. PHMSA’s proposed multi-layered approach also reflects the common-sense proposition that hazardous material entails the same hazards to public safety and the environment whether transported on Class I railroads or regional and short line railroads.

C. *Section 174.28*

Current HMR requirements do not impose a crystal-clear requirement for railroads to ensure that safety-critical train consist information is available to emergency response personnel at all times, much less placed in the hands of emergency response personnel during an accident or incident involving rail transportation of hazardous material. Rather, the HMR speaks in terms of making such information “accessible” to train crews (§ 172.602(c)), “available” to first responders, emergency response officials, or law enforcement personnel (§ 172.600(c)), in the possession of train crews (§ 174.26(a)), and submitted to the National Response Center “as soon as practicable but no later than 12 hours after the occurrence of any incident . . .” (§ 171.15).

Section 7302 of the FAST Act requires PHMSA to issue regulations filling that gap by creating an explicit obligation for railroads to “provide” accurate, real-time train consist information in electronic form to first responders, emergency response officials, and law enforcement personnel involved in a rail accident or incident involving transportation of hazardous materials. As discussed in Section III.F. above, PHMSA understands that congressional mandate to “provide” real-time train consist information requires that railroads take concrete action both (1) by making that electronic train consist information available to emergency response personnel at all times, including before an accident or incident occurs; and (2) promptly after an accident or incident, ensuring that railroads take action to “push” that same electronic train consist information to state-authorized local first responders.

PHMSA consequently proposes a new § 174.28 implementing that FAST Act mandate. For the same reasons described in the above discussion of the proposed § 174.26, PHMSA proposes that this new provision’s requirements would apply to *all* railroads, and not just those that were the subject of the FAST Act mandate. Consistent with PHMSA’s understanding of congressional intent, paragraph (a) of this new provision would require all railroads to ensure that authorized first responders, emergency response officials, and law enforcement personnel along routes in which they transport hazardous material have access to up-to-date, electronic real-time train consist information at any time—including *before* an accident or incident occurs. PHMSA notes that this element of its new information-sharing requirements can help to address concerns regarding the effectiveness of any requirement for only post-accident/incident notification arising from (1) internet or phone connectivity gaps/intermittency, or (2) delayed or incomplete distribution of real-time electronic train consist by railroad personnel who may be juggling many tasks following reports of an accident or incident involving rail transportation of hazardous material. And, as discussed above in Sections III.F.-G., PHMSA understands that industry may already have tools (including the AskRail® system) that could be employed for this purpose without material modification—or could develop new platforms for this purpose.

Paragraph (b) within the new § 174.28 would establish an obligation for all railroads to supplement the above advance information sharing requirement with an explicit obligation for railroads to “push” electronic train consist information to state-authorized local first responders in a 10-mile radius of an accident or certain incidents promptly following notification to the railroad of the accident or incident. This proposed requirement would ensure that electronic, real-time train consist information would be forwarded in a timely manner to first responders that are either (1) in a community/jurisdiction that itself would be directly affected by release of hazardous materials during an accident or incident, or (2) in a neighboring community/jurisdiction that is closest, and therefore best-positioned to support response efforts in communities directly affected. PHMSA understands that this proposed requirement would be largely similar to the special permit conditions discussed in Section III.C. above. And at its core, this proposed requirement is performance-based: in scrutinizing compliance with this requirement, PHMSA will therefore focus on (1) before an accident or incident, ensuring that railroads have adopted protocols and resources providing a high degree of confidence that the “push” notifications will succeed in promptly placing train consist information in the hands of state-authorized local first responders needing it; and (2) after an accident or incident occurs, that those notifications did in fact reach those personnel in a timely manner.³³ Similarly, PHMSA will be less concerned with the particular tools (e.g., instant message to mobile devices, email, fax notification functionalities within the AskRail® system) employed by railroads than on whether railroads have ensured that (1) their personnel have, in advance of rail transportation of hazardous material, a comprehensive, verified list of persons and pertinent contact information for authorized local first response personnel along a route, and (2) appropriate protocols and training for railroad personnel to ensure that such notifications can occur promptly following an

³³ PHMSA expects that railroads will not approach their “push” notification requirement as a check-the-box exercise whereby their regulatory obligation is discharged when they send an email or leave a voicemail with emergency response personnel. Rather, PHMSA expects that they will continue to attempt to contact emergency response personnel by a variety of means until they receive positive (non-automated) receipt of the notification by those personnel.

accident or incident. As a backstop for that performance-based approach, PHMSA has within paragraph (b) included a straightforward, “one-size-fits-all” minimum 10-mile default radius that it believes strikes an appropriate balance between each of the safety benefits anticipated from a conservative advance notification requirement for the variety of hazardous materials moved across the nation’s railroads,³⁴ and the need for an easily-executed baseline notification for railroad personnel amidst the confusion following an accident or incident.³⁵

PHMSA also proposes a new paragraph (c) implementing the FAST Act mandate direction that the exchange of real-time electronic train consist information provided for by PHMSA’s proposals must be performed in a secure and confidential manner so as to protect proprietary and security-sensitive information³⁶, and that regional and short line railroads be permitted to enter into memoranda of understanding with Class I railroads whose track they use to facilitate such transfers of train consist information to emergency response personnel³⁷ and directed toward information-sharing and identification of best practices. Those industry initiatives are backstopped by recent guidance issued by the Transportation Security Administration (TSA) in October 2022³⁸ directing (most) railroads to undertake a series of measures to reduce the risk of cybersecurity threats to their operations. PHMSA expects that railroads will be able to build on those existing resources to ensure that their execution of the requirements proposed in this NPRM are compliant with the new § 174.28(c). Further, PHMSA notes that nothing proposed in this NPRM would restrict railroads from collaborating on a platform (e.g., the AskRail® system) for electronic sharing of accurate and real-time train consist

³⁴ PHMSA notes that the 10-mile notification radius in § 174.28(b) is a default, minimum value — as circumstances (e.g., the physical characteristics of the hazardous material, the quantity and form of any release, the physical environment surrounding the accident or incident) of the potential hazards warrant, it expects that railroads will expand the notification radius accordingly.

³⁵ By way of example, PHMSA understands that the AskRail® system already has a functionality that identifies fire department jurisdictions along a rail route that would facilitate communication with these entities.

³⁶ PHMSA acknowledges that the precise statutory language employed in section 7302(a)(5) FAST Act (“security-sensitive information”) is differs slightly from the language (“Sensitive Security Information”) employed in the Transportation Security Administration directive referenced below and in regulation at 49 CFR parts 15 and 1520.

³⁷ Among the members of the Railroad Information Security Committee are the chief information security officers of several Class I railroads, Amtrak, Railinc. The Committee is supported by each of AAR and ASLRRA.

³⁸ TSA, Sec. Dir. No. 1580/82-2022-01, “Rail Cybersecurity Mitigation Actions and Testing” (Oct. 2022), sd-1580-82-2022-01.pdf (tsa.gov).

information with authorized emergency response personnel, whether pursuant to a memorandum of understanding or other form of agreement.

PHMSA expects that given all the electronic options available, all railroads—even the smallest short line railroads—will be able to comply with the performance-based requirements of proposed § 174.28(a) through (c). By way of a hypothetical example, a short line that is only five miles in length and transports one or two hazardous materials rail car each month would not have to provide updates to the train consist information due to routine switching operations. Further, PHMSA envisions that railroad would be able to communicate with the local police and fire department(s) servicing its limited route to make arrangements for communication of the train consist information for the rail car using instant messaging, email, or even fax notification before movement of a train carrying hazardous material as well as following either an accident involving that train, or incident involving release (or suspected release) of hazardous material from that train. PHMSA believes that the railroad could satisfy each of § 174.28(a) through (c) by such arrangements to make its train consist information accessible at all times to emergency response personnel, and to ensure that state-authorized local first responders are “pushed” that information in the event of an accident or incident. Although PHMSA notes that the limited scope of the hazardous material transportation operations of this hypothetical short line railroad results in correspondingly lower compliance obligations under proposed § 174.28(a) through (c), not all railroads are similarly situated; larger Class I railroads, with more track and more extensive hazardous materials transportation operations, may need to adopt correspondingly more fulsome compliance protocols in satisfying the performance-based requirements at § 174.28(a) through (c).³⁹

³⁹ PHMSA invites comment, for potential inclusion within a final rule in this proceeding, on the appropriateness of modification (by way of limitations or exceptions) of the scope of application of its proposed § 174.28 requirements. Commenters requesting such exceptions should consider providing detailed information speaking to material considerations — including the potential economic/cost benefits, the potential safety impact of such limitations or exceptions predicated in historical shipment and incident data, and implementation mechanics — for PHMSA’s evaluation of any such proposed limitations or exceptions.

Lastly, PHMSA has also included proposed language at paragraph (d)—that in the event that railroads employ technology (e.g., the AskRail® system) in complying with the information sharing requirements within § 174.28(b)—prohibiting railroads and their personnel (or their designees) from withholding or causing to withhold electronic train consist information from emergency response personnel responding to an incident or accident. PHMSA’s proposed regulatory language elaborates that railroads employing technology for such notifications must ensure that any such emergency response personnel have access to that software and the train consist information therein throughout the accident or incident—from the initial notification pursuant to § 174.28(b) until the conclusion of response and investigation efforts. PHMSA submits that this proposed language is another essential measure for backstopping the accident/incident notification performance standard at paragraph (b).

V. Regulatory Analyses and Notices

A. *Statutory/Legal Authority for this Rulemaking*

Statutory authority for this rulemaking is provided by the Federal hazardous materials transportation law (HMTA; 49 U.S.C. 5101 *et seq.*). As discussed at greater length in Section II.B. above, section 5103(b) of the HMTA authorizes the Secretary of Transportation to “prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce.” The Secretary has delegated this authority under the HMTA to the PHMSA Administrator at 49 CFR 1.97(b).

B. *Executive Orders 12866 and 14094, and DOT Regulatory Policies and Procedures*

Executive Order 12866 (“Regulatory Planning and Review”),⁴⁰ as amended by Executive Order 14094 (“Modernizing Regulatory Review”),⁴¹ requires that agencies “should assess all costs and benefits of available regulatory alternatives, including the alternative of not

⁴⁰ 58 FR 51735 (Oct. 4, 1993).

⁴¹ 88 FR 21879 (April 11, 2023).

regulating.” Agencies should consider quantifiable measures and qualitative measures of costs and benefits that are difficult to quantify. Further, Executive Order 12866 requires that “agencies should select those [regulatory] approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.” Similarly, DOT Order 2100.6A (“Rulemaking and Guidance Procedures”) requires that regulations issued by PHMSA and other DOT Operating Administrations should consider an assessment of the potential benefits, costs, and other important impacts of the proposed action and should quantify (to the extent practicable) the benefits, costs, and any significant distributional impacts, including any environmental impacts.

Executive Order 12866 and DOT Order 2100.6A require that PHMSA submit “significant regulatory actions” to the Office of Management and Budget (OMB) for review. This rulemaking is not considered a significant regulatory action under section 3(f) of Executive Order 12866 (as amended) and, therefore, was not formally reviewed by OMB. This rulemaking is also not considered a significant rule under DOT Order 2100.6A.

The following is a brief summary and table of costs, savings, and net benefits of some of the amendments proposed in this notice. PHMSA has developed a more detailed economic analysis in the PRIA, a copy of which has been placed in the docket. PHMSA seeks public comment on its proposed revisions to the HMR and the preliminary cost and benefit analyses in the PRIA.

PHMSA has preliminarily determined that the proposed action would impact seven Class I railroads, 11 Class II railroads, and 585 Class III railroads. PHMSA estimates the undiscounted total cost of the rulemaking over the 10-year analysis period to be about \$46.3 million in 2021 dollars, for an average annual cost of \$4.6 million. The discounted total cost of the rulemaking is estimated to be about \$32.8 million at a 7 percent discount rate. Further, PHMSA notes that the benefits of the proposed action are difficult to quantify as it is reliant on the degree to which

having real-time access to train consist information improves emergency responders' ability to respond to rail incidents. Based on lessons learned from major hazardous material incidents on rail, PHMSA anticipates the proposed action would improve emergency responders' ability to promptly identify all the hazardous materials cars and hazardous material contained therein that are involved in an accident or investigation and to timely assess the threat from a hazardous materials release. This would likely reduce injuries and fatalities, material loss and response costs, and delays caused by closures. PHMSA estimated the annual damage cost of hazardous material incidents on rail that could be impacted by the proposed action to be about \$15.6 million in 2021 dollars. Therefore, the proposed rule would have to reduce damage costs by about 30 percent for the monetized benefits of the proposed rule to equal costs. The following table summarizes the quantified annual costs and qualified benefits of the major provisions of this rulemaking.

Proposed Requirement	Average Annual Cost			Benefit	Breakeven
	Undiscounted	3%	7%		
Amending the definition of train consist information	\$3,406,052	\$2,905,432	\$2,392,269	By improving emergency responders' ability to promptly identify all the hazardous materials involved in an accident and assess the threat from a hazardous materials release, the proposed provisions will reduce injuries and fatalities, material loss and response costs, and delays caused by closures.	Cost-effective if the proposed requirements reduce the consequences of hazardous material incidents by rail by about 30 percent.
Amending notice to train crew	\$1,051,753	\$897,167	\$738,708		
New information sharing requirement	\$169,447	\$162,157	\$153,722		
Total	\$4,627,252	\$3,964,756	\$3,284,699		

As illustrated by the Norfolk Southern train derailment at East Palestine, OH, such incidents can have substantial consequences that are not captured by this regulatory impact analysis, including the long-term environmental concerns and health risks (both physiological and psychological) for residents. Research also shows that such incidents can have significant impacts on property values, which, in turn, can slow down economic activity in the area.⁴² Additionally, of the 140,000 total route-miles of track in the United States, 104,000 miles are in rural and tribal areas, suggesting that train related hazardous material incidents mainly happen in areas populated by disadvantaged communities.⁴³ Time is of the essence during the initial stages of emergency response to a hazardous materials incident. Reducing the lag in provision of critical hazardous material identification and response information during rail hazardous materials incidents will provide environmental and safety benefits, although these benefits are difficult to quantify. PHMSA acknowledges and considers these unquantified benefits in selecting the provisions of the proposed rulemaking.

⁴² For example, a study that examines the impact of 33 derailments involving hazardous material on property values in New York State between 2004 and 2013 found that, on average, a derailment depreciates housing values within a one-mile radius by 5%-8% (Chuan Tang et al. (2020). Rail accidents and property values in the era of unconventional energy production. Journal of Urban Economics, 120, <https://doi.org/10.1016/j.jue.2020.103295>

⁴³ Improving Rail in Rural Communities | FRA (dot.gov)

C. *Executive Order 13132*

PHMSA analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 (“Federalism”)⁴⁴ and the presidential memorandum (“Preemption”).⁴⁵ Executive Order 13132 requires agencies to assure meaningful and timely input by state and local officials in the development of regulatory policies that may have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

The Federal hazardous materials transportation law contains an express preemption provision at 49 U.S.C. 5125(a) in the event compliance with a state, local, or Indian tribe requirement is not possible or presents an obstacle to compliance. Additionally, the Federal hazardous materials transportation law contains an express preemption provision at 49 U.S.C. 5125(b) that preempts state, local, and Indian tribal requirements on the following covered subjects:

- (1) The designation, description, and classification of hazardous materials;
- (2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
- (3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;
- (4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous materials; and

⁴⁴ 64 FR 43255 (Aug. 10, 1999).

⁴⁵ 74 FR 24693 (May 22, 2009).

(5) The design, manufacture, fabrication, inspection, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous materials in commerce.

This proposed rule addresses covered subject items (3) and (4) above and is expected to preempt state, local, and Indian tribe requirements not meeting the “substantively the same” standard. In this instance, the preemptive effect of the proposed rule is necessary to achieve the objectives of the FAST Act and the hazardous materials transportation law under which the proposed rule is promulgated. The proposed rule is not expected to have substantial direct effects on states, the relationship between the national government and states, or the distribution of power and responsibilities among the various levels of government. Therefore, PHMSA has preliminarily concluded that the consultation and funding requirements of Executive Order 13132 do not apply.

D. *Executive Order 13175*

PHMSA analyzed this proposed rulemaking in accordance with the principles and criteria contained in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”)⁴⁶ and DOT Order 5301.1 (“Department of Transportation Policies, Programs, and Procedures Affecting American Indians, Alaska Natives, and Tribes”). Executive Order 13175 and DOT Order 5301.1 require DOT agencies to assure meaningful and timely input from Indian tribal government representatives in the development of rules that significantly or uniquely affect tribal communities by imposing “substantial direct compliance costs” or “substantial direct effects” on such communities or the relationship and distribution of power between the Federal Government and Native American tribes.

PHMSA assessed the impact of this proposed action and has preliminarily determined that it will not significantly or uniquely affect tribal communities or Native American tribal

⁴⁶ 65 FR 67249 (Nov. 9, 2000).

governments. The changes to the rail transportation requirements in the HMR as part of this proposed action have national scope, and also are limited to establishing baseline requirements for the compilation, updating, and electronic exchange of hazardous materials information between railroads and first responders, emergency response officials and law enforcement personnel; PHMSA, therefore, does not expect this action to significantly or uniquely affect tribal communities, nor impose substantial compliance costs on Native American tribal governments or mandate tribal action. This rulemaking would not adversely affect the safe transportation of hazardous materials therefore, it would not cause disproportionately high adverse risks for tribal communities. For these reasons, the funding and consultation requirements of Executive Order 13175 and DOT Order 5301.1 to apply. However, PHMSA solicits comment from Native American tribal governments and communities on potential impacts of the proposed rulemaking.

E. *Regulatory Flexibility Act and Executive Order 13272*

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires agencies to review regulations to assess their impact on small entities, unless the agency head certifies that a rulemaking will not have a significant economic impact on a substantial number of small entities including small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations under 50,000. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where possible to do so and still meet the objectives of applicable regulatory statutes. Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”) requires agencies to establish procedures and policies to promote compliance with the Regulatory Flexibility Act and to “thoroughly review draft rules to assess and take appropriate account of the potential impact” of the rules on small businesses,

governmental jurisdictions, and small organizations. The DOT posts its implementing guidance on a dedicated webpage.⁴⁷

This proposed rule has been developed in accordance with Executive Order 13272 and with DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered. This proposed action promotes the exchange of information about hazardous material on a train between railroads and emergency response personnel and law enforcement for the benefit of response to or investigation of accidents or emergencies involving a train transporting hazardous material. The proposed action applies to railroads, some of which are small entities, such as regional and short line railroads. As discussed at length in the PRIA—posted in the rulemaking docket—the proposed action will not, if adopted as proposed, have a significant economic impact on a substantial number of small entities.

PHMSA determined that all 585 Class III railroads (100%) and 10 Class II railroads (91%) can be considered small entities. None of the Class I railroads can be considered small entities.

Railroad	Affected entities	>1500 employees		1,500 or fewer employees	
		Count	Percent	Count	Percent
Class I	7	7	100%	0	0%
Class II	11	1	9%	10	91%
Class III	585	0	0%	585	100%
Total	603	8		595	

According to ASLRRA's report, in 2017, the average annual revenues of a Class II and Class III railroads were approximately \$79 million and \$4.75 million, respectively. PHMSA converted these into 2021 dollars by using a deflation index of 1.1202, resulting in an average annual revenue of \$88.5 million and \$5.32 million for Class II and Class III, respectively.³¹

⁴⁷ DOT, "Rulemaking Requirements Related to Small Entities," <https://www.transportation.gov/regulations/rulemaking-requirements-concerning-small-entities> (last accessed June 17, 2021)

Based on estimates, for Class II and III railroads, the per railroad undiscounted average annual cost of the proposed rule is \$5,473 (2021\$).

Class II & III Railroads	Amending the definition of train consist information		Amending notice to train crew		New information sharing requirement		Proposed Rule
	Annual Cost	Annual Cost Per Railroad	Annual Cost	Annual Cost Per Railroad	Annual Cost	Annual Cost Per Railroad	Annual Cost Per Railroad
596	\$3,104,452	\$5,209	\$98,042	\$164	\$109,903	\$185	\$5,558

PHMSA estimates the average annual cost of the proposed rule is less than 0.1% of the average annual revenue of Class II and Class III railroads. However, for the 41 Class III railroads with five or fewer employees, PHMSA acknowledges that the cost of the rulemaking could be substantially higher than the estimated per railroad average cost of \$5,558. Based on estimates in the PRIA, for these railroads, the year one cost of the proposed action is estimated to be about \$18,000 per railroad. Accordingly, PHMSA estimated that the annual revenue of a railroad has to be about \$1.8 million or less for this proposed action to have an economic impact of greater than 1%. However, this estimated annual revenue threshold is significantly below the average annual revenue of Class III railroads (\$5.32 million). PHMSA seeks comment on whether the average cost figures presented in this analysis represent an accurate accounting of the distribution of costs across Class III railroads.

Based on this analysis, PHMSA has preliminarily determined that the proposed action will not have a significant economic impact on a substantial number of small entities.

F. *Paperwork Reduction Act*

Under the Paperwork Reduction Act of 1995 (PRA; 44 U.S.C. 3501 *et seq.*), no person is required to respond to an information collection unless it has been approved by the Office of Management and Budget (OMB) and displays a valid OMB control number. Section 1320.8(d) of 5 CFR requires PHMSA to provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests. This proposed action may

result in an increase in annual burden and costs for information collection due to additional railroad information requirements for hazardous materials transported by rail.

PHMSA has analyzed this NPRM in accordance with PRA which requires Federal agencies to minimize paperwork burden imposed on the American public by ensuring maximum utility and quality of Federal information, ensuring the use of information technology to improve government performance and improving the Federal Government's accountability for managing information collection activities. Under the PRA, no person is required to respond to any information collection unless it has been approved by OMB and displays a valid OMB control number.

In this NPRM, PHMSA is proposing to add two new information collections to OMB Control No. 2137-0559, "Rail Carrier and Tank Car Tanks Requirements, Rail Tank Car Tanks - Transportation of Hazardous Materials by Rail." PHMSA estimates that this NPRM will result in an overall increase in burden attributed to the proposed requirement for additional emergency response information on hazardous materials by rail. The revisions proposed in this NPRM will require railroads to make certain train consist information available electronically—see the "Section IV. Section-by-section Review of Proposed Amendments discussion of Section 174.28." Much of this required information is already required of and generally applied to shippers who must then provide the information to carriers (e.g., rail). Shippers are also generally required to supply emergency response information with the hazardous material shipping paper information. For purposes of facilitating emergency response measures, the additional information collection proposed to be applied to railroads by this rule is expanded hazardous material train consist information that includes the origin and destination of hazardous materials on a train and the specific identification of hazardous material location in rail cars. Additionally, PHMSA is requiring railroads to provide advance notice to state- authorized local responders when an accident or incident involving hazardous material occurs.

Hazardous Materials Train Consist Information

As a result of the changes proposed in this NPRM, PHMSA estimates that 603 railroads (Class I, II, and III) will produce hazardous material train consist information 76,227 times annually. PHMSA estimates the additional burden for this information collection will take 4.8 minutes per response resulting in 6,098 additional burden hours for the railroads (Class I, II, and III) (76,227 responses x 4.8 minutes). It is estimated that a railroad employee making \$51.73 per hour will perform this function resulting in an increased salary cost of \$297,813 (6,098 burden hours x \$51.35 per hour). Additionally, PHMSA estimates railroads will need to make an initial investment in building a system for electronic sharing of train consist information. PHMSA conservatively assumes that the initial cost of building out a system will result in \$500,000 in burden cost associated with this information collection.

Notification of Hazardous Materials Accidents or Incidents

Additionally, PHMSA estimates that 603 railroads (Class I, II, and III) will need to notify local authorities of hazardous materials incidents 518.5 times annually. PHMSA understands that not all Class II and III railroads transport hazardous materials yet is estimating using a conservative assumption that all railroads may at some point transport hazardous material. PHMSA estimates the additional burden proposed in this NPRM will take 15 minutes resulting in 129 burden hours (518.5 hazardous materials incidents x 15 minutes per notification). It is estimated that a railroad employee making \$50.66 per hour will perform this function resulting in an increased salary cost of \$6,567 (129 burden hours x \$50.66 per hour). There are no additional burden costs associated with this information collection.

A summary of the total increases for information collections proposed under this OMB control number are as follows:

Annual Increase in Number of Respondents: 603

Annual Increase in Number of Responses: 76,846

Annual Increase in Burden Hours: 6,228

Annual Increase in Salary Cost: \$319,689

Annual Increase in Burden Costs: \$500,000

PHMSA requests comment on the information collection and recordkeeping burdens associated with developing, implementing, and maintaining the proposed requirements in this NPRM. Address written comments to the DOT Docket Operations Office identified in the ADDRESSES section of this rulemaking. PHMSA must receive comments regarding information collection burdens prior to the close of the comment period identified in the DATES section of this rulemaking. Requests for a copy of this information collection should be directed to Steven Andrews, Standards and Rulemaking Division (PHH-10), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590-0001. If these proposed requirements are adopted in a final rule, PHMSA will submit the revised information collection and recordkeeping requirements to OMB for approval.

G. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (UMRA; 2 U.S.C. 1501 *et seq.*) requires agencies to assess the effects of Federal regulatory actions on state, local, and tribal governments, and the private sector. For any proposed or final rule that includes a Federal mandate that may result in the expenditure by state, local, and tribal governments, or by the private sector of \$100 million or more in 1996 dollars in any given year, the agency must prepare, amongst other things, a written statement that qualitatively and quantitatively assesses the costs and benefits of the Federal mandate.

As explained in the PRIA, this rulemaking is not expected to impose unfunded mandates under the UMRA. Nor is it expected to result in costs of \$100 million or more in 1996 dollars to either state, local, or tribal governments, or to the private sector, in any one year. A copy of the PRIA is available for review in the rulemaking docket.

H. *Draft Environmental Assessment*

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*),⁴⁸ requires Federal agencies to consider the environmental impacts of their actions in the decision-making process. NEPA requires Federal agencies to assess the environmental effects of proposed Federal actions prior to making decisions and involve the public in the decision-making process. Agencies must prepare an environmental assessment (EA) for a proposed action for which a categorical exclusion is not applicable and is either unlikely to have significant effects or when significance of the action is unknown. In accordance with these requirements, an EA must briefly discuss: (1) the need for the action; (2) the alternatives considered; (3) the environmental impacts of the proposed action and alternatives; and (4) a listing of the agencies and persons consulted. If, after reviewing public comments in response to the draft EA (DEA), an agency determines that a proposed rule will not have a significant impact on the human or natural environment, it can conclude the NEPA analysis with a finding of no significant impact (FONSI).

1. Need for the Action

The FAST Act at section 7302 instructs the Secretary to issue regulations that require a Class I railroad transporting hazardous material to create accurate, real-time, and electronic train consist information that must be provided “to State and local first responders, emergency response officials, and law enforcement personnel that are involved in the response to or investigation of an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials.” Further, the NTSB has issued safety recommendation R-07-04 recommending PHMSA and FRA collaborate to require all railroads to immediately provide to emergency response personnel accurate, real-time information regarding the identity and location of all hazardous materials on a train.

2. Alternatives Considered

No Action Alternative:

⁴⁸ Also at 40 CFR parts 1501 through 1508.

The no action alternative would not make any changes to the current regulatory requirements that railroads must provide train crews with hard copy train consist information about hazardous material and its location on the train. There would be no additional requirements for railroads to generate, maintain, and provide in electronic form, information regarding hazardous material to first responders, emergency response officials, and law enforcement personnel or to forward this information to emergency response personnel in accident or incident situations.

Proposed Action: All Railroads Alternative:

Under this alternative, all railroads that transport hazardous materials would be required to create accurate train consist information about the hazardous material and its location on a train in both a hard (printed) copy maintained by train crews and an electronic copy maintained by the railroad off-of-the-train and providing it in real-time through electronic communications to emergency response personnel. Railroads would also be required to provide a “push” notice of the train consist information to emergency response personnel in (at least) a 10-mile radius of an accident or incident promptly following notification to the railroad of the accident or incident. This alternative aims to enhance transportation safety by transitioning away from exclusive reliance on train crews and hard copy documents for the exchange of information about hazardous material and their location on a train.

Class I Railroads Alternative:

Under this alternative, only Class I railroads, as defined by the STB, that transport hazardous materials would be subject to generating accurate train consist information about the hazardous material and its location on a train (in both electronic and hard copy forms) and providing it in real-time through electronic communication, to emergency response personnel. Also, only Class I railroads would be required to provide a “push” notice of the train consist information to emergency response personnel in a 10-mile radius of an accident or incident promptly following notification to the railroad of the accident or incident. This alternative aims

to enhance transportation safety by transitioning away from exclusive reliance on train crews and hard copy documents for the exchange of information about hazardous materials and their locations on a train by adhering more closely to the FAST Act mandate to implement measures for Class I railroads.

3. Environmental Impacts of Proposed Action and Alternatives

No Action Alternative:

The PHMSA HMR and the FRA rail regulations work in tandem to keep hazardous material in packages and rail cars on the tracks during transportation. In the unlikely event of an incident or accident, train crews carry and maintain documentation, in addition to hazard communication displayed on packages and rail cars, that emergency responders and law enforcement can use to assess the potential for, or threat from, a hazardous materials release and thus, appropriately respond. The intent of the FAST Act mandate and NTSB safety recommendation to provide real-time electronic means of train consist information exchange is to provide greater assurances that emergency responders and law enforcement have the right information about the hazardous material on a train without delay. The presumption being that supplementing the existing hard copy train consist information requirements by providing the information electronically, for instance, provides better assurance that such information is accurate and in real-time, especially in the aftermath of a derailment, and that real-time information will aid in response decision-making, leading to safer outcomes for the public and the environment. The no action alternative would not require any updates to the existing requirements or regulation of hazardous materials transportation and incident response time.

Proposed Action: All Railroads Alternative:

This proposed action would supplement existing requirements for hard copies of train consist information maintained by train crews by requiring railroads to also create and provide accurate and real-time train consist information to emergency response personnel. All railroads would be required to use electronic communication to supplement their hard copy documentation

and communications requirements. By implementing the proposed action to all railroads, the entirety of the nation's rail network would be covered. Efficiencies will be introduced by requiring accurate and real-time information exchange with the goal of improved safety and enhanced response to investigations of an accident or emergency involving hazardous material transported by rail. The intent of the proposed action is to foster and promote the general welfare of the human and natural environment by providing enhanced emergency response and investigative efforts for safer transport of hazardous materials. The proposed action builds on the current HMR requirements for hazardous material information sharing with the goal of improved rail transportation safety by enhancing emergency responder and law enforcement ability to assess, without delay, the potential for or extent of a hazardous material release and take appropriate response measures. These enhanced safety measures and requirements are geared toward addressing environmental effects including avoidance of human exposure and water contamination. Regulations that require the increased use of electronic systems for transmission of train consist information not only promote enhanced emergency response and investigative efforts for accidents or incidents but also respond to the FAST Act mandate and NTSB safety recommendation R-07-04.

Class I Railroads Only Alternative:

This alternative would require only Class I railroads to supplement existing hard copy train consist information documentation requirements by creating and providing accurate, real-time train, electronic train consist information to emergency response personnel and also providing a "push" notice of the train consist information to emergency response personnel in a 10-mile radius of an accident or incident promptly following notification to the railroad of the accident or incident. Although, the entirety of the nation's rail network would not be covered, applying this alternative would still affect about 68% of the nation's rail network and most of the hazardous materials freight traffic. Class I railroads operate on about 90,000 miles of the 140,000-mile U.S. freight rail network. This modified version of the proposal would still provide

safety and environmental benefits by enhancing emergency responder and law enforcement ability to assess without delay the potential for a hazardous material release and take appropriate response measures. Similar to the proposed action to all railroads, this approach also builds on the HMR provisions for hazardous material information sharing, just to a narrower extent, applicable to only Class I railroads. The enhanced safety measures and requirements are geared toward addressing environmental effects including avoidance of human exposure and water contamination.

4. Environmental Justice

Executive Order 12898 (“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”),⁴⁹ directs Federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal actions on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. DOT Order 5610.2C (“U.S. Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”) establishes departmental procedures for effectuating Executive Order 12898 promoting the principles of environmental justice through full consideration of environmental justice principles throughout planning and decision-making processes in the development of programs, policies, and activities—including PHMSA rulemaking.

Through the NEPA process, PHMSA has evaluated this NPRM under DOT Order 5610.2C and Executive Order 12898 and has preliminarily determined it will not cause disproportionately high and adverse human health and environmental effects on minority and low-income populations. The proposed rule will not result in any adverse environmental or health impact on minority populations and low-income populations. Rather, PHMSA anticipates the proposed action to have a positive impact on the safe transportation of hazardous materials by rail by requiring all trains transporting hazardous materials to have real-time information

⁴⁹ 59 FR 7629 (Feb. 11, 1994).

available to emergency responders in the event of an accident or incident—particularly rail lines in urban or rural areas posing higher risks due to their proximity to minority and low-income communities in the vicinity of those rail lines. To the extent that the nation’s rail network passes through geographic locations of minority populations, low-income populations, or other underserved and other disadvantaged communities, and in the unfortunate circumstance of a rail accident or emergency involving hazardous materials, the proposed action will have a positive impact by aiding emergency response personnel and law enforcement in more quickly assessing potential threats from the hazardous materials and taking appropriate measures to protect public health and the environment. Lastly, as explained in this DEA above, the proposed action will likely reduce environmental risks posed by hazardous material rail incidents.

5. Agencies and Persons Consulted

PHMSA published this notice in consultation with FRA. In addition, PHMSA and FRA worked with stakeholders through several RSAC Hazardous Material Issues Working Group meetings. The U.S. Department of Homeland Security, NTSB, and a variety of rail industry stakeholders, such as the AAR and the IIAFC participated in these meetings. Ultimately, some participants in the Working Group concluded that electronic train consist information could be a valuable option for improving emergency response efforts, and the AskRail® system could be extended beyond Class I railroads. PHMSA also issued an ANPRM soliciting stakeholder input on the contents of this rulemaking. Please see Section III. G above for more details.

6. Draft Finding of No Significant Impact

As discussed in the DEA above and given that the purpose of the rule is to address safety and environmental impacts of potential future hazardous materials rail transportation incidents, PHMSA proposes to find that this proposed action will have no significant impact on the environment. This is based on the analysis presented in the ANPRM, NPRM, supporting documents, and this DEA. PHMSA welcomes public comments about the safety and

environmental risks or benefits that could result from this proposed rule as well as possible alternatives and their environmental impacts.

I. *Privacy Act*

In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform any amendments to the HMR considered in this rulemaking. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS). DOT's complete Privacy Act Statement is available in the *Federal Register*,⁵⁰ or on DOT's website at <http://www.dot.gov/privacy>.

J. *Executive Order 13609 and International Trade Analysis*

Executive Order 13609 ("Promoting International Regulatory Cooperation")⁵¹ requires that agencies consider whether the impacts associated with significant variations between domestic and international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally. In meeting shared challenges involving health, safety, labor, security, environmental, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. 103-465) (as amended, the Trade Agreements Act), prohibits agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to the Trade

⁵⁰ 65 FR 19477 (Apr. 11, 2000).

⁵¹ 77 FR 26413 (May 4, 2012).

Agreements Act, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

PHMSA participates in the establishment of international standards to protect the safety of the American public, and it has assessed the effects of the proposed action to ensure that it does not cause unnecessary obstacles to foreign trade. Accordingly, this rulemaking is consistent with Executive Order 13609 and PHMSA's obligations under the Trade Agreements Act.

K. *National Technology Transfer and Advancement Act*

The National Technology Transfer and Advancement Act (NTTAA) of 1995 (15 U.S.C. 272 note) directs Federal agencies to use voluntary consensus standards in their regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards—e.g., specification of materials, test methods, or performance requirements—that are developed or adopted by voluntary consensus standard bodies. This rulemaking does not propose use of voluntary consensus standards, and therefore the NTTAA does not apply.

L. *Cybersecurity and Executive Order 14082*

Executive Order 14082 (“Improving the Nation's Cybersecurity”)⁵² expressed the Administration policy that “the prevention, detection, assessment, and remediation of cyber incidents is a top priority and essential to national and economic security.” Executive Order 14082 directed the Federal Government to improve its efforts to identify, deter, and respond to “persistent and increasingly sophisticated malicious cyber campaigns.” Consistent with

⁵² 86 FR 26633 (May 17, 2021).

Executive Order 14082, TSA in October 2022 issued a Security Directive to reduce the risk that cybersecurity threats pose to critical railroad operations and facilities through implementation of layered cybersecurity measures that provide defense in depth.⁵³

PHMSA has considered the effects of the NPRM and has preliminarily determined that its proposed regulatory amendments would not materially affect the cybersecurity risk profile for rail transportation of hazardous materials. PHMSA acknowledges that the proposed requirements within this NPRM pertaining to the sharing of electronic train consist information (some of which may be proprietary or security-sensitive information) could have some effect on the cybersecurity risk profile of rail transportation of hazardous material. However, PHMSA notes that it has proposed in this NPRM (consistent with a mandate in section 7302(a)(5) of the FAST Act) explicit language at § 174.28(c) that would require such information sharing be performed in a manner that is protective of security and confidentiality interests. PHMSA also notes, that, as explained in the discussion of § 174.28 within Sections III.F-G. above, railroads that would be affected by this NPRM's proposals may be participants in existing industry cybersecurity risk-mitigation initiatives, or subject to recent TSA guidance for mitigation of cybersecurity risks associated with rail transportation of hazardous material. PHMSA understands these considerations address any potential alteration in cybersecurity risks profiles due to this NPRM's proposed information-sharing requirements.

PHMSA seeks comment on any other potential cybersecurity impacts of the proposed amendments beyond the considerations discussed here.

M. Severability

The purpose of this proposed rule is to operate holistically in addressing different issues related to safety and environmental hazards associated with the rail transportation of hazardous

⁵³ TSA, Security Directive No. 1580/82-2022-01, "Rail Cybersecurity Mitigation Actions and Testing" (Oct. 24, 2022).

materials. However, PHMSA recognizes that certain provisions focus on unique topics. Therefore, PHMSA preliminarily finds that the various provisions of this proposed rule are severable and able to function independently if severed from each other; thus, in the event a court were to invalidate one or more of this proposed rule's unique provisions, the remaining provisions should stand and continue in effect. PHMSA seeks comment on which portions of this rulemaking should or should not be severable.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Reporting and recordkeeping requirements.

49 CFR Part 174

Emergency preparedness, Hazardous materials transportation, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA proposes to amend 49 CFR chapter I as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101-5128, 44701; Pub. L. 101-410 section 4; Pub. L. 104-134, section 31001; Pub. L. 114-74 section 701 (28 U.S.C. 2461 note); 49 CFR 1.81 and 1.97.

2. In § 171.8, remove the definition for “Train consist” and add the definition for “Train consist information” in alphabetical order to read as follows:

§ 171.8 Definitions.

* * * * *

Train consist information means a hard (printed) copy or electronic record of the position and contents of each hazardous material rail car where the record includes the information required by § 174.26 of this subchapter.

* * * * *

PART 174—CARRIAGE BY RAIL

3. The authority citation for part 174 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 33 U.S.C. 1321; 49 CFR 1.81 and 1.97.

4. Revise § 174.26 to read as follows:

§ 174.26 Notice to train crews.

(a) Prior to movement of a train, a railroad must provide the train crew with train consist information as defined in § 171.8 of this subchapter in hard copy (printed) form that has: a railroad-designated emergency point of contact (name, title, phone number and email address) in a conspicuous location; and the position in the train and contents of each hazardous material rail car by reporting mark and number, to include the:

(1) Point of origin and destination of hazardous materials subject to shipping paper requirements on the train;

(2) Shipping paper information required by §§ 172.201 to 172.203 of this subchapter; and

(3) Emergency response information required by § 172.602(a) of this subchapter.

(b) The train crew must update the train consist information to reflect any changes in the train consist information occurring at intermediate stops prior to continued movement of the train. Any update to the train consist information must also be reflected in the electronic train consist information required pursuant to § 174.28 prior to continued movement of the train. Train crews may use electronic or radio communications to notify the railroad to update the electronic train consist information.

(c) The train consist information must always be immediately available for use by the train crew while the train is in transportation. When the train crew is aboard the train locomotive,

the train consist information shall be stowed in a conspicuous location of the occupied locomotive.

(d) Railroad operating rules for use of electronic devices by train crews and use of electronic devices by train crews in association with updates to train consist information requirements of this section and § 174.28 must comply with 49 CFR part 220, subpart C.

5. Add § 174.28 to read as follows:

§ 174.28 Electronic Train Consist Information.

(a) *Retention and notification requirements.* Each railroad carrying hazardous materials must at all times maintain in electronic form, off the train, accurate train consist information as required in § 174.26. Each railroad must make such electronic train consist information immediately accessible at all times to its designated emergency point of contact such that they are able to communicate train consist information to Federal, state, and local first responders, emergency response officials, and law enforcement personnel seeking assistance. Each railroad must also provide, using electronic communication (e.g., a software application or electronic data interchange), that electronic train consist information to authorized Federal, state, and local first responders, emergency response officials, and law enforcement personnel along the train route that could be or are involved in the response to, or investigation of, an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials such that the information is immediately available for use at the time it is needed.

(b) *Emergency notification.* When a train carrying hazardous material is involved in either an accident, or in an incident involving the release or suspected release of a hazardous material from a rail car in the train, the railroad must promptly notify State-authorized local first responders within at least a 10-mile radius of the accident or incident by forwarding train consist information in electronic form to those personnel. Notification may be accomplished through Public Safety Answering Points (i.e., 911 call centers).

(c) *Security measures.* Each railroad must implement security and confidentiality protections in generating, updating, providing, and forwarding train consist information in electronic form pursuant to this section to ensure they provide access only to authorized persons. Nothing in this paragraph shall limit a railroad from entering into agreements with other railroads or persons to develop and implement a secure process for the generation, updating, providing, and forwarding of that information.

(d) *Provision of train consist information.* No railroad may withhold, or cause to be withheld, the train consist information described in paragraphs (a) and (b) of this section from Federal, state, or local first responders, emergency response officials, and law enforcement personnel in the event of an incident, accident, or public health or safety emergency involving the rail transportation of hazardous materials. If a railroad uses a software application to meet the requirements of this section, it must provide all first responders, emergency response officials, and law enforcement personnel responding to, or investigating, an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials access, in accordance with the security and confidentiality protections required in paragraph (c) of this section, to the train consist information contained within that application without delay for the duration of the response or investigation.

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

6. The authority citation for part 180 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

7. In § 180.503, remove the definition “Train consist”.

Issued in Washington, DC on June 21, 2023 under authority delegated in 49 CFR part 1.97.

William S. Schoonover,

Associate Administrator for Hazardous Materials Safety,

Pipeline and Hazardous Materials Safety Administration.

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