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: Final rule.

SUMMARY: PHMSA is amending the Hazardous Materials Regulations to require railroads that carry hazardous materials 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 amendments in this final rule address a safety recommendation of the National Transportation Safety Board and statutory mandates in The Fixing America's Surface Transportation Act, as amended by the Infrastructure, Investment, and Jobs Act, and complement 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:

Effective Date: July 24, 2024.

Voluntary Compliance Date: June 24, 2024.

Delayed Compliance Date: For Class I Railroads June 24, 2025. For Class II and III Railroads June 24, 2026.

FOR FURTHER INFORMATION CONTACT: Eamonn Patrick, 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:

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I. Executive Summary

A. What is the purpose of the regulatory action?

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is amending 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) and its existing statutory safety authorities. This final rule requires railroads transporting hazardous materials to generate train consist information in electronic form, maintain that information off-the-train, and update that information in real-time. Railroads must provide that information to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel [1] along the train route who 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 in advance of their arrival to an accident or incident.

Additionally, immediately following either an accident involving a train carrying hazardous materials or an incident involving the release or suspected release of hazardous material from a train, the railroad operating the train must make an emergency notification telephonically and provide train consist information electronically to the primary Public Safety Answering Point (PSAP) [2] responsible for the area where the event occurred as well as the track owner (if the track owner is different from the railroad operating the train). PHMSA also adopts a requirement that railroads must test their emergency notification system at least annually. In updating that electronic train consist information, railroads must also update the local copy version of the same information

[1] PHMSA understands ''authorized Federal, State, and local first responders, emergency response officials, and law enforcement personnel'' may include personnel from any of federal agencies (*e.g.,* PHMSA, Federal Railroad Administration, National Transportation Safety Board, U.S. Environmental Protection Agency, or Federal Emergency Management personnel) involved in the response to or investigation of a hazmat incident during rail transportation, or organizations that state or local governments authorize to perform emergency response activities. PHMSA further understands that ''local first responders'' includes tribal and territorial first responders.

[2] A PSAP is an entity responsible for receiving 9–1–1 calls and processing those calls according to a specific operational policy. Primary PSAPs are responsible for directly receiving 9–1–1 and other emergency calls and may route them to other PSAPs for response.

provided to train crews in printed paper copy. Updating both the local printed paper copy maintained by the train crew and the electronic version of that information maintained off the train ensures the information is 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, Ohio, that accident and similar events that have occurred in recent years highlight the importance of providing emergency response personnel with timely, complete, and 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 in this final rule 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),[3] to require Class I railroads [4] 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, Mississippi, PHMSA is applying the final rule requirements to all railroads that transport hazardous materials in light of the risks to public safety and the environment from delay in responding to releases from smaller Class II and III railroads. In this final rule, PHMSA is adopting alternative compliance methods as an option for Class III railroads to reduce the regulatory burden on these small businesses while still improving the ability of emergency responders to access accurate train consist information from these railroads. Additionally, while the proposed rule was more narrowly focused on providing information to emergency response personnel, thanks to public comments, this final rule adopts an approach that provides critical information to a broader group of responders while reducing the burden on railroads.

B. What are the key provisions?

This section outlines the key provisions of the final rule. For benefit of the reader, a discussion of the changes made between this final rule and the notice of proposed rulemaking (NPRM) [5] follows in section I.C. below.

Definition of ''Train Consist Information:'' PHMSA is amending 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 train; shipping paper information required by §§ 172.201 to 172.203; and emergency response information required by § 172.602(a). PHMSA also makes a conforming revision to § 180.503 to delete a definition of ''train consist'' that is not used in that part.

Notice to Train Crews: PHMSA is amending the requirements in § 174.26 to provide train consist information (as PHMSA defines that term at § 171.8) in local printed paper form to train crews prior to movement of hazardous materials by rail. Specifically, PHMSA clarifies responsibilities for railroads to provide a local printed paper copy version of train consist information to train crews; for train crews to update that local copy version of train consist information; and that the local copy of the train consist information must be maintained in a conspicuous location of an occupied locomotive or in the possession of a train crew member if they evacuate the locomotive during an accident or incident. 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 local printed paper copy and electronic train consist information maintained off the train are at all times accurate and consistent.

Note that Class III railroads complying with the alternative compliance method adopted in this final rule are not required to maintain and update train consist information in electronic form. Instead, they must have a written plan that identifies how the railroad will provide accurate train consist information to local emergency responders; inform local emergency response organizations and PSAPs about their plan (and any material changes made to the plan after the original notification); enact the plan during incidents or accidents requiring emergency response; and test the plan at least annually.

Emergency Response Information Sharing Requirements: PHMSA creates a new section at § 174.28 that establishes real-time, electronic train consist information-sharing requirements for hazardous materials transported by rail. Railroads transporting hazardous materials must generate and provide train consist information by electronic means to authorized federal, state, and local first responders; emergency response officials; and law enforcement personnel who 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 federal, state, and local first responders, emergency response officials, and law enforcement personnel.

In the event of either an accident involving a train carrying hazardous materials, or incident involving the release or suspected release of hazardous material, railroads operating trains carrying hazardous material are required to immediately notify the primary PSAP responsible for the area where the incident occurred telephonically and the track owner (if

[3] Codified at 49 U.S.C. 20103 note.

[4] 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 $1 billion/year (2023); the threshold for Class II rail carriers is approximately $46 million/year; and the threshold for Class III rail carriers is any value less than the threshold for Class II railroads.

[5] 88 FR 41541 (Jun. 27, 2023). *https://www.govinfo.gov/content/pkg/FR-2023-06-27/pdf/2023-13467.pdf.*

the track owner and the railroad operating the train are different), and provide the train consist information to the primary PSAP/track owner electronically in a form that the PSAP/track owner is capable of readily accessing (*i.e.,* a form the PSAP/track owner can access and use based on the specific information technology resources they have available) to assist in response and investigation efforts. This emergency notification requirement applies to situations that require response from local emergency response agencies. For example, PHMSA does not expect that a railroad will provide emergency notification and train consist information to the primary PSAP responsible for the area where the incident occurred due to the release of a minimal amount of material from the routine operation of service equipment, provided the release does not cause property damage, injury to employees, or any danger to public safety or health. PHMSA emphasizes that the emergency notification requirement adopted in this final rule does not affect a railroad's responsibility to continue to comply with all applicable local, state, and federal reporting requirements related to releases of hazardous materials, hazardous substances, oil, or any similar subjects.

Class III railroads may comply with the requirements applicable to Class I and II railroads, or they may comply with an alternative method for providing train consist information to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel. This alternative method is discussed in greater detail in Sections IV.B and V.C below. To summarize the alternative requirements, Class III railroads must develop a written plan that identifies how the railroad will provide emergency notification and accurate train consist information to local emergency responders; notify emergency responders along their route of the contents of the plan (and any material changes made to the plan after the original notification);[6] conduct a test at least annually to demonstrate the effectiveness of the plan; and enact the plan in the event of a rail incident or accident requiring response from local emergency response agencies.

Finally, railroads must develop a test program and conduct tests of their emergency notification and electronic train consist transmission system at least annually, to ensure reliability of these systems across their network. Class III railroads complying with the alternative compliance method must conduct a test, at least annually, demonstrating that their written plan is effective for emergency notification and transmission of train consist information.

C. What changed between the NPRM and the final rule?

In response to comments received to the NPRM, PHMSA is making the following changes in this final rule. See Section IV for further details on the reasoning and impact of these changes.

TABLE—CHANGES BETWEEN THE NPRM AND THE FINAL RULE

NPRM proposal	Final rule requirement	Explanation
• One-year compliance period for all railroads.	• One-year compliance period for Class I railroads. • Two-year compliance period for Class II and III railroads.	• This extension in the compliance period for Class II and III railroads provides these smaller entities with additional time to make the necessary changes to their operations and systems to comply with the requirements of this final rule.
• Train consist information must include information on the origin and destination of all hazardous materials transported on the train.	• Train consist information must include the origin and destination of the train.	• This revision of a proposed requirement aligns the final rule more closely with the FAST Act mandate for data on train origin and destination, which will provide responders with information on the train's direction of travel.
• Railroads must provide prompt emergency notification of an accident or incident involving hazardous materials to every state-authorized local first responder within a 10-mile radius.	• Railroads must provide immediate emergency notification of an accident or incident involving hazardous materials to the primary PSAP responsible for the area where the incident occurred telephonically and the track owner (if the track owner is different than the railroad operating the train). • Railroads must test their emergency notification system at least annually, and create and retain records of the results of the tests (*e.g.,* was the test notification received and acknowledged immediately).	• This revision is intended to ensure the incident commander receives critical train consist information without providing confusing notifications to unaffected jurisdictions. • This adjusted notification requirement is intended to ensure railroads have an operable system in place to make the emergency notification, and that operational procedures are practiced regularly.
• The contact information for the railroad's designated emergency point of contact must include name, title, e-mail address, and phone number.	• The contact information for the railroad's designated emergency point of contact must include a phone number.	• This revision to a proposed requirement acknowledges that including a specific individual's name, title, and email address is not practical for the constant, round-the-clock operational nature of rail transportation of hazardous materials.
• All railroads are subject to the same requirements in § 174.28 for Electronic Train Consist Information.	• There are alternative compliance requirements for Class III railroads.	• PHMSA concludes that different operational considerations for Class III railroads and relative economic burdens for small businesses must be accounted for to facilitate effective implementation, and thus has created an alternative compliance requirement for Class III railroads.
• Train crews may use electronic or radio communications to notify the railroad to update electronic train consist information.	• Train crews may use electronic, radio communications, or other means to notify the railroad to update the electronic train consist information.	• This editorial revision to the proposed requirement clarifies further the flexibility railroads can use to communicate train consist changes to their centralized electronic system.
• The requirements for electronic real-time train consist information apply to a railroad carrying hazardous material.	• The requirements for electronic real-time train consist information apply to a railroad operating a train carrying hazardous material.	• This editorial revision to a proposed requirement clarifies that the railroad operating a train carrying hazardous materials is subject to the requirements of this rule, rather than the track owner (if the track owner is different that the railroad operating the train).

[6] In this context, PHMSA notes our expectation that a Class III railroad utilizing the alternate compliance method will notify local emergency response agencies of any significant changes to the procedures outlined in the plan, such as a change to the type of technology used to provide accurate train consist information.

TABLE—CHANGES BETWEEN THE NPRM AND THE FINAL RULE—Continued

NPRM proposal	Final rule requirement	Explanation
• Emergency notifications must be made promptly.	• Emergency notifications must be made immediately.	• This editorial revision (replacing ''promptly'' with ''immediately'') better conveys PHMSA's intention in the NPRM that railroads notify the primary PSAP/track owner as quickly as possible after learning of the accident or incident. ''Immediately'' is understood to have more urgency than ''promptly.''
• n/a.	• The proposed paragraphs in § 174.28(c) (security) and (d) (provision of train consist information) are redesignated (d) and (e), respectively.	• The creation of a new paragraph (c) in § 174.28 to authorize alternative compliance requirements for Class III railroads requires redesignation of the proposed (c) and (d) to (d) and (e).
• The NPRM provided no clarification on the types of accidents or incidents involving release or suspected release of hazardous materials requiring emergency notification.	• PHMSA is clarifying that only accidents and incidents that require activation of local emergency response resources must be immediately reported and accompanied with electronic train consist information.	• It was not PHMSA's intent to require the notification of local emergency response resources and provision of train consist information in circumstances that do not require emergency response.

D. What is the economic impact?

PHMSA estimates the final rule impacts six Class I railroads, 14 Class II railroads, and 638 Class III railroads, and estimates the undiscounted total financial impact of the rule over a 10 year analysis period to be about $17.7 million in 2022 dollars, for an average annual cost of $1.8 million. The discounted total cost of the rule over the analysis period is estimated to be $15.8 million in 2022 dollars at a two percent discount rate, for an average annual cost of $1.6 million. The benefits of this final rule will depend greatly on the effectiveness of having timely access to real-time train consist information to improve authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel's 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, Ohio.

PHMSA anticipates the final rule will improve authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel's ability to promptly identify all the hazardous materials cars involved in an accident and to assess the threat from a hazardous materials release in a timely manner. PHMSA estimated the annual damage cost of hazardous material incidents on rail to be $15 million in 2022 dollars. Therefore, the rule would have to reduce damage costs by about 12 percent for the monetized benefits of the rule to equal costs. The following table summarizes the annual costs and benefits of the major provisions of the final rule in constant 2022 dollars.

Requirement	Average annual cost		Benefit	Breakeven
	Undiscounted	2%		
Amending the definition of train consist information.	$327,847	$291,089	*By aligning the definition of the FAST Act with the language in the existing regulation, this amendment improves regulatory clarity.*	*Cost-effective if this requirement reduces the consequences of hazardous material incidents by rail by about 11.8 percent.*
Amending notice to train crew.	1,169,018	1,036,601	*By improving emergency personnel's ability to promptly identify all the hazardous materials involved in an accident and assess the threat from a hazardous materials release, the provisions will reduce injuries and fatalities, material loss and response costs, and delays caused by closures.*	
New emergency response information sharing requirement.	275,018	251,219		
Total	1,771,883	1,578,908		

As illustrated by the Norfolk Southern train derailment incident at East Palestine, Ohio, such accidents can have substantial impacts that are not quantified by the final regulatory impact analysis (RIA) in this rulemaking—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.[7] 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.[8] PHMSA acknowledged and considered these unquantified factors in adopting the provisions of the rulemaking.

[7] 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 five to eight percent (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.*

[8] *See* PHMSA, ''Improving Rail in Rural Communities,'' *https://railroads.dot.gov/rural* (last accessed May 3, 2023).

II. Electronic Hazard Communication for Rail Transportation Emergency Response

A. What action is being taken?

In this final rule, PHMSA adopts a requirement for railroads transporting hazardous materials 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 federal, state, and local first responders, emergency response officials, and law enforcement personnel at all times upon request. Further, PHMSA requires that, in the event of either an accident involving a train carrying hazardous materials, or an incident involving the release or suspected release of hazardous material, railroads operating trains carrying hazardous material must immediately telephonically notify the primary PSAP responsible for the area (*i.e.,* having jurisdiction) where the incident occurred, and forward that train consist information to the primary PSAP and the track owner (if the railroad operating the train and the track owner are different) in a form that the PSAP and track owner are capable of readily accessing. Class III railroads may comply with the requirements adopted for Class I and II railroads, or they may comply with the alternative requirements adopted in this rule for planning, notifying, and providing accurate train consist information to local emergency response agencies. PHMSA also makes conforming and clarifying revisions to previously existing HMR requirements governing notification (via local printed paper copy documentation) of train crews for trains carrying hazardous material.

PHMSA is adopting a delayed compliance period of one year from the date of publication of this final rule for Class I railroads 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 train consist information in electronic form to authorized federal, state and local first responders, emergency response officials, and law enforcement personnel. PHMSA is adopting a delayed compliance period of two years for Class II and III railroads to allow these smaller railroads additional time to implement the systems and procedures necessary to comply with this final rule. Detailed discussions of comments received to the rulemaking docket are provided in Section IV below, and discussion of changes to sections of the HMR based on this rule are provided in Section V below.

B. What is PHMSA's authority for this 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 of Transportation (Secretary) to issue regulations 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.'' 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:

- Identity, quantity, and location of hazardous materials on a train;
- Point of origin and destination of the train;
- Emergency response information or resources required by the Secretary; and
- Emergency response point of contact designated by the Class I railroad.

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 action apply to me?

The action in this final rule applies to all railroads that transport hazardous materials 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, in this final rule PHMSA adopts requirements—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—for Class II railroads to also compile, update, and forward accurate, real-time train consist information in electronic form. Class III railroads may comply with the requirements adopted for Class I and II railroads, or they may comply with the alternative requirements adopted in this rule for planning, notifying, and providing accurate train consist information to local emergency response agencies.

PHMSA notes that this broader approach to include all railroads transporting hazardous materials in the United States 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, Mississippi. 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.[9]

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. Class II and III railroads (hereinafter referred to as ''regional and short line railroads'') also transport hazardous material and account for more than one 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,

[9] 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.ntsb.gov/investigations/AccidentReports/Reports/RAR0701.pdf.*

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 authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel in areas served by these railroads to also have access to accurate and real-time train consist information. In this final rule, PHMSA is providing a longer delayed compliance period (two years) for Class II and III railroads in recognition that they may need additional time to develop the necessary systems and procedures to comply with this final rule.

Finally, PHMSA is providing clarification in this final rule that the requirement to provide real-time train consist information applies to the railroad operating the train carrying hazardous materials, not the track owner—if the track owner and the railroad operating the train are different entities. For example, if a freight railroad is utilizing a passenger railroad's tracks to move a train carrying hazardous materials, the freight railroad is the entity responsible for complying with the real-time train consist requirements PHMSA is adopting in this final rule.

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. Prior to the adoption of this final rule, the HMR defined ''train consist'' in § 171.8 as ''a written record of the contents and location of each rail car [10] in a train.'' In this final rule, PHMSA is adopting the definition of train consist information as proposed in the NPRM: ''*Train consist information* means 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.''

B. What was required regarding train consist information prior to this final rule?

Prior to publication of this final rule, the HMR at § 174.26(a) required that railroad train crews must have a local 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.[11] The regulations required the train crew to update the document, and allowed for updates by handwriting or by appending or attaching another document. Additionally, § 174.26(b) required that the train crew must also have a copy of a document showing the information required on hazardous materials shipping papers, including applicable emergency response information.

A common practice for railroads in satisfying the above regulatory requirements was 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 by 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. How does this final rule impact existing special permits for electronic train consist information?

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,[12] including for six Class I railroads: DOT–SP 20954 (issued to BNSF Railway Company); DOT–SP 21046 (issued to CSX Transportation and currently expired); DOT–SP 21053 (issued to Canadian National Railway Company); DOT–SP 21323 (issued to Canadian Pacific Railway Company and currently expired); 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 Class III railroad: Richmond Pacific Railroad. The special permits provide operational controls and reporting requirements, including the following:

- Train consist information must be readily available by electronic means to government officials (*e.g.,* emergency response personnel);
- Updates of the train consist information must be done electronically and in real-time;
- 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;
- Upon notification of an incident to response authorities, the train consist information must be provided;
- Training must be provided to first responders along portions of a route without cellular service on methods of communication during an incident; and
- 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.

Electronic train consist information has been provided to emergency responders in accordance with the requirements of these special permits. For example, BNSF Railway Company has reported four occasions where electronic train consist information was shared with first responders to assist in prompt emergency response. However, PHMSA is not prepared to adopt the requirements of these special permits into the HMR for general use at this time. We believe more operational experience is needed in both ordinary service—particularly in remote areas where communication services may not be available—and during rail emergencies before we can rely on electronic devices for the train crew's copy of train consist information for all

[10] 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.

[11] PHMSA notes that the train consist documentation requirements discussed throughout this final rule 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.

[12] Special permits may be reviewed at *www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search.* DOT–SPs 20954, 21059, 21110 and 21266 are active while DOT–SP 21053 is active under pending renewal, along with several party-to applications, and DOT–SPs 21046 and 21323 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, Ohio.

routes in the United States. Therefore, PHMSA will continue to consider requests for renewal, party status, and new applications for special permits related to electronic devices used to display and transmit the train crew's copy of train consist information in accordance with our standard procedures. (See 49 CFR part 107, subpart B.)

D. How does train consist information affect rail transportation safety?

Train consist information aids federal, state, and local 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. This communication in turn informs the appropriate response action (*e.g.,* selecting the correct fire suppression media) precisely when every second counts.

Officials typically rely heavily on this information—along with hazard communication on the railcars themselves required pursuant to part 172 requirements pertaining to marking (subpart D), labeling (subpart E), and placarding (subpart F)—for timely awareness about hazardous material on a train in emergency situations. The local copy of train consist information maintained by the crew can often be the only accurate basis of knowledge on the hazardous material within a train because marking, labeling, and 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. There is a premium on having a common understanding of the hazardous material on the train as coordinated response efforts commence because emergency response may involve personnel from different and distant jurisdictions converging on a single location at different times.[13] 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.

An example taken from a 2007 NTSB investigation report[14] 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 carrying mixed freight including hazardous material collided head-on in Anding, Mississippi. 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 burned 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 approximately $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 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 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. More than two-and-a-half hours after the collision, another CN employee who traveled from Jackson, Mississippi, (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 14 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.[15]

The importance of timely, accurate train consist information is also underscored by the recent Norfolk Southern train derailment in East Palestine, Ohio. 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 displayed on the tank cars melted in the ensuing fire following the derailment.[16] Firefighters who

[13] 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.

[14] NTSB Report at 2–10.

[15] *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.'').

[16] NTSB, Preliminary Report No. RRD23MR005, ''Norfolk Southern Railway Train Derailment with Subsequent Hazardous Material Release and Fires—East Palestine, Ohio—Feb. 3, 2023 (Feb. 23, 2023), *https://www.ntsb.gov/investigations/Documents/*

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 during their initial assessment of the incident and while planning initial response actions. Notably, too, the East Palestine, Ohio, 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 the requirements for electronic train consist information adopted in this final rule affect rail transportation safety?

Prior to the adoption of this final rule, the HMR imposed some documentation requirements pertaining to hazardous material within a train. Specifically, each of §§ 171.8 (''written record'') and 174.26 (''copy of a document'') contemplated that a ''train consist'' is 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. 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.

The limited documentation requirements in the HMR prior to the adoption of this final rule contributed to delays in emergency response actions and potentially inaccurate information being provided to emergency response personnel at precisely the same moment when accurate, timely information was 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, Mississippi, collision and the East Palestine, Ohio, 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 carrying hazardous material as those hazard communication tools may have been obscured (*e.g.,* through burning) or been rendered inaccessible. Moreover, emergency response personnel cannot necessarily rely on the train crew or the hard copy of the train consist information they may have onboard. As in the Anding, Mississippi, collision, train crews can become incapacitated and hard copies of the train consist information may be destroyed in the incident. Even if those resources are available, they may only be available in the form of a single document or to 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.[17] 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—which may add more delay in the critical moments immediately following an accident or incident.[18] 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.

PHMSA finds that maintaining electronic train consist information away from the train and updating this information in real-time as the position and number of railcars containing hazardous materials on a train change, addresses many of those shortcomings from reliance solely on the local copy of train consist 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 local copy of that information maintained by train crews per § 174.26 as hard (printed) copy promotes the accuracy of both remote and local 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 remote electronic record occurs automatically, it can minimize the introduction of human error into either hard or electronic versions of the train consist information.

Additionally, as illustrated by the Anding, Mississippi, collision, the local copy of train consist information maintained in the locomotive may be destroyed or inaccessible, or train crews may become injured, rendering them ineffective for the exchange of information to emergency response personnel. Reliance on a single hard or electronic copy document, or on a limited number of personnel, risks bottlenecking or creating conflicting accountings of critical information. In contrast, remote compilation and maintenance 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 promotes earlier coordination of emergency response efforts; emergency response personnel traveling 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. 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. PHMSA also notes that stakeholders within the emergency response community have also

RRD23MR005%20East%20Palestine%20OH%20Prelim.pdf.

[17] 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.

[18] 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.

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.[19] See Section IV below for further information on comments received to this rulemaking proceeding, including supportive comments from emergency response organizations.

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 federal, state, and local first responders, emergency response officials, and law enforcement personnel 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 and accessible to authorized personnel before an accident or incident—and pushed immediately following initiation of an accident or incident to emergency response personnel needing that information to identify potential hazardous material threats, take appropriate measures, and commence investigation activities.

Although PHMSA understands that the HMR as written prior to the publication of this final rule required 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 conductor) must update by hand the local printed paper 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 the HMR as written prior to the publication of this final rule did 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 immediately notify and forward that same information to state-authorized local first responders or primary PSAP 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 as written prior to the publication of this final rule required the use of local printed paper copies that may not lend themselves to real-time updating or transfer to a person off the train. The HMR also lacked specificity regarding railroads' obligations to forward that information to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel in a proactive and timely manner; rather, the HMR spoke 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 practical 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 authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel at all times and to push the information to them via the primary PSAP following an accident or incident—will be practicable for Class I, Class II, and for many Class III railroads.

As a general matter, PHMSA submits that the requirements adopted in this final rule 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.[20] Nor are the requirements adopted in this final rule on the cutting edge of technology—the sort of equipment and procedures 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). PHMSA submits 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 incentivized to employ similar equipment and procedures when transporting materials known to be hazardous to public safety and the environment.[21]

Additionally, railroads will not be implementing the requirements of this final rule 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 form; and PHMSA's requirement adopted in this final rule that such information be readily accessible in advance of an accident or incident, and forwarded to primary PSAPs electronically in a form the PSAP is capable of readily accessing immediately following an accident or certain incidents, is similar to existing HMR requirements to make certain information available to emergency response personnel and train crews. As discussed in Section III.C above, a number of the Class I railroads (and at least one short line railroad) have already demonstrated the feasibility of compiling electronic real-time train consist information pursuant to special permits along specific routes; those special permits contain requirements for the update and prompt relay of that

[19] *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.

[20] In this final rule, PHMSA provides a one-year delayed compliance period for Class I railroads, and a two-year delayed compliance period for Class II and III railroads. This provides ample time for the railroads to make any necessary changes to their operations and systems to comply with the requirements of the final rule. PHMSA is also adopting an alternative compliance method for Class III railroads to reduce compliance burdens on these small businesses.

[21] 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, Ohio, derailment.

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 final rule's 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.[22] This platform—which is available for use in both desktop and mobile device applications—provides authorized emergency response personnel and primary PSAPs 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 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:

- Voice reports from train crews;
- Digital communications with mobile devices operated by train crews; or
- Digital communications with automatic equipment identification (AEI) systems (discussed further below).

Although AskRail® may currently operate as a ''near real-time'' system based on associated use of AEI systems (*i.e.,* there may be a lag between a change to the train's makeup and the update to AskRail® prior to passing the next AEI reader), PHMSA believes that it is well within the capabilities of railroads operating under this system to ensure that updates to train consist information are made in real-time, before movement of the train. To the extent that the AskRail® system (or any alternative platform or methods used in complying with the final rule's 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 extensive access requirements during emergencies, PHMSA expects that such systems could be designed or modified and railroads could proactively engage the response community to address those concerns. Although PHMSA understands that current use of the AskRail® system may currently be largely limited to Class I railroads,[23] 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.[24] PHMSA itself commissioned a pilot program that in 2020 demonstrated the technical feasibility of integrating a leading proprietary commercial train consist information platform for Class II and III railroads (the Wabtec Train Management System) with the AskRail® system.[25]

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; 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, Mississippi, 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.[26] PHMSA submits that challenges associated with identifying proper placement of installed, trackside AEI readers could be mitigated somewhat by timely supplementation with one or more portable, handheld AEI readers and voice reports by train crew personnel of changes to the local train consist information.

G. How has PHMSA engaged stakeholders?

PHMSA and the Federal Railroad Administration (FRA) had previously 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.[27] 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

[22] *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).

[23] *See* ASLRRA, Doc. No. PHMSA–2016–0015–0006, ''Docket No. PHMSA–2016–0015 (HM–263): FAST Act Requirements for Real Time Train Consist Information by Rail'' 3–4 (Apr. 19, 2017) (ASLRRA Comments).

[24] *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.

[25] *See* PHMSA, Notice ID No. 693JK320P000014, ''Statement of Work and Sole Source Justification: Transportation Management Consist Information'' (Award Date May 14, 2020). PHMSA maintains a copy of the project closeout report.

[26] NTSB Report at 6.

[27] Meeting minutes from HMIWG meetings are available in the public docket for this rulemaking.

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 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 federal, state, and local first responders, emergency response officials, and law enforcement personnel had not been provided 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 a challenge in increasing reliance on installed, trackside AEI readers to provide accurate, real-time updates to electronic train consist information—namely, 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 (ASLRRA), 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 issued an Advance Notice of Proposed Rulemaking (ANPRM) in 2017 soliciting comments on implementing the FAST Act's then-effective mandate to employ ''fusion centers'' as clearinghouses for receiving from railroads, and forwarding electronic real-time train consist information to emergency response personnel.[28] Although many 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.

AAR and ASLRRA [29] 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 and 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.[30] The International Association of Fire Fighters (IAFC) also submitted comments to the ANPRM ''strongly'' arguing for the 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.[31]

On June 27, 2023, PHMSA published an NPRM [32] on this topic, and solicited comments from the regulated community and other interested parties on implementing real-time train consist information. PHMSA extended the comment period for an additional 60 days.[33] PHMSA received 32 sets of comments to the NPRM, which are discussed in detail in Section IV below. In this final rule, PHMSA is adopting modified requirements related to the delayed compliance period for Class II and III railroads; information on the origin and destination of the train; the emergency notification required after an accident or incident; the railroad's designated emergency point of contact; and creating an alternate compliance method for Class III railroads based on comments submitted to the NPRM. See Section I.C. above for a summary of the changes made to the final rule, and Section IV below for a summary and discussion of comments.

IV. Summary and Discussion of Comments

A. Summary of Comments Received

PHMSA received 32 sets of public comments to the NPRM.[34]

TABLE—COMMENTS SUBMITTED TO THE NPRM

Commenter	Docket Identifier
Mitchel Berger	PHMSA–2016–0015–0014.
ASLRRA	PHMSA–2016–0015–0016.
Petrina Harrison	PHMSA–2016–0015–0017.
Sally Blake	PHMSA–2016–0015–0018.

[28] 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.

[29] 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.

[30] AAR ''Docket No. PHMSA–2016–0015 (HM–263): FAST Act Requirements for Real-Time Train Consist Information by Rail'' (Apr. 19, 2017). *https://www.regulations.gov/comment/PHMSA-2016-0015-0007.*

[31] IAFC ''Docket No. PHMSA–2016–0015 (HM–263): FAST Act Requirements for Real-Time Train Consist Information by Rail'' (Apr. 21, 2017) at 6.

[32] 88 FR 41541 (June 27, 2023). *https://www.govinfo.gov/content/pkg/FR-2023-06-27/pdf/2023-13467.pdf.*

[33] 88 FR 55430 (Aug. 15, 2023). *https://www.govinfo.gov/content/pkg/FR-2023-08-15/pdf/2023-17472.pdf.*

[34] This figure accounts for the two sets of comments submitted by ASLRRA, one of which was a request to extend the comment period by 60 days, which was granted, and two sets of comments submitted by NENA/NASNA.

TABLE—COMMENTS SUBMITTED TO THE NPRM—Continued

Commenter	Docket Identifier
Elizabeth Smith	PHMSA–2016–0015–0019.
Pinsky Law Group	PHMSA–2016–0015–0021.
Mark Nichols	PHMSA–2016–0015–0022.
NTSB	PHMSA–2016–0015–0023.
NENA/NASNA	PHMSA–2016–0015–0024.
Washington State Department of Ecology and Washington Utilities and Transportation Commission	PHMSA–2016–0015–0025.
Todd Jackson	PHMSA–2016–0015–0026.
Anonymous (PHMSA–2016–0015–0027)	PHMSA–2016–0015–0027.
Public Utilities Commission of Ohio	PHMSA–2016–0015–0028.
New York State Metropolitan Transportation Authority	PHMSA–2016–0015–0029.
Ohio Department of Public Safety—Ohio Emergency Management Agency	PHMSA–2016–0015–0030.
IAFC	PHMSA–2016–0015–0031.
SMART–TD	PHMSA–2016–0015–0032.
Amtrak	PHMSA–2016–0015–0033.
Coalition to Stop CPKC	PHMSA–2016–0015–0034.
Transportation Trades Department	PHMSA–2016–0015–0035.
The Attorneys General of Pennsylvania, New York, Maryland, Delaware, Connecticut, Illinois, District of Columbia, Wisconsin, Maine, Massachusetts, New Jersey, Oregon, and Vermont (hereinafter ''the Attorneys General'').	PHMSA–2016–0015–0036
AFPM	PHMSA–2016–0015–0037.
Association of Public-Safety Communications Officials	PHMSA–2016–0015–0038.
Illinois Commerce Commission	PHMSA–2016–0015–0039.
Maine DEP and Maine EMA	PHMSA–2016–0015–0040.
Anonymous (PHMSA–2016–0015–0041)	PHMSA–2016–0015–0041.
Commuter Rail Coalition	PHMSA–2016–0015–0042.
Association of American Railroads (AAR)	PHMSA–2016–0015–0043.
ASLRRA	PHMSA–2016–0015–0044.
National Association of SARA Title III Program Officials	PHMSA–2016–0015–0045.
American Public Transportation Association	PHMSA–2016–0015–0046.
NENA/NASNA	PHMSA–2016–0015–0053.

Overall, the majority of the comments received supported the requirements proposed in the NPRM. In addition to the supportive comments, PHMSA received suggestions to improve the proposed requirements, as well as objections, primarily lodged by AAR and ASLRRA, to the proposed requirements. Summaries of these substantive comments, and PHMSA's response to them, is provided below.

PHMSA also notes that between January 22 and March 6, 2024, it held listening sessions with some of the above stakeholders who had submitted written comments on the NPRM to provide them an opportunity to elaborate on those comments. PHMSA has filed summaries of those listening sessions to the rulemaking docket:

TABLE—STAKEHOLDER LISTENING SESSIONS ON COMMENTS SUBMITTED TO THE NPRM

Commenter	Docket Identifier
ASLRRA	PHMSA–2016–0015–0048.
AAR	PHMSA–2016–0015–0049.
IAFC	PHMSA–2016–0015–0051.
NENA	PHMSA–2016–0015–0050.
NASNA	PHMSA–2016–0015–0052.
SMART–TD	PHMSA–2016–0015–0054.
AFL–CIO TTD & Affiliated Unions.	PHMSA–2016–0015–0056.

PHMSA notes that the above listening sessions generally recapitulated each stakeholder's written comments. That said, the discussions below identify any distinguishable comments from those sessions.

B. Applicability of Real-Time Electronic Train Consist Information Requirements to Regional and Short Line Railroads

In the NPRM, PHMSA proposed to apply the same real-time electronic train consist requirements to all railroads that transport hazardous materials in the United States. The NTSB, Attorneys General, and International Association of Sheet Metal, Air, Rail and Transportation Workers Transportation Division (SMART–TD) expressed support for the inclusion of regional and short line—Class II and III—railroads in the scope of the rule. These comments noted that the same types of hazardous materials are transported by regional and short line railroads as the national Class I railroads and present the same possibility for significant accidents impacting the public. NTSB additionally urged PHMSA to ensure that emergency responders operating in areas served by regional and short line railroads have the same access to critical train consist information as those that operate in areas served by Class I railroads. ASLRRA, a trade organization that represents regional and short line railroads, objected to the decision to include them in the scope of the rule. In its comment, ASLRRA stated that PHMSA lacks statutory authority for this action; has failed to account for lower risks presented by these railroads; and performed a faulty regulatory flexibility and cost/benefit analysis. Additionally, on January 22, 2024, ASLRRA met with the Office of Hazardous Materials Safety (OHMS) and presented verbal comments in support of their written comment. A meeting summary [35] is available in the public docket.

ASLRRA noted that the FAST Act, as modified by the 2021 Investment Infrastructure and Jobs Act, directs PHMSA to implement a real-time electronic train consist information requirement for Class I railroads, and does not mention regional or short line

[35] *https://www.regulations.gov/document/PHMSA-2016-0015-0048*

railroads in association with this mandate, unlike other instances in the FAST Act that do specifically mention these classes of railroads.

ASLRRA stated that regional and short line railroad operations are safer than those of larger railroads, due to shorter trains, lower speeds and less complex operations. ASLRRA cited data for the period 2015–2022 that indicates their member railroads accounted for 1.23 percent of the total damages caused by hazardous materials releases in the rail mode, while Class I railroads accounted for the remaining 98.77 percent.[36] ASLRRA stated the majority of movement on regional and short line railroads are at or below 25 mph, which reduces the consequences of a derailment due to the lower amount of kinetic energy and could decrease the chances of a derailment by allowing shorter stopping distance and additional time to detect a visually apparent hazard along the tracks. Additionally, ASLRRA notes the 2005 incident in Anding, Mississippi, which led NTSB to issue Safety Recommendation R–07–04, involved a Class I railroad. ASLRRA also stated that regional and short line railroads, which operate in much smaller geographic areas than Class I railroads, maintain close ties with local emergency response organizations, making the provision of real-time train consist information in electronic format redundant and potentially less effective than existing arrangements.

Further, ASLRRA stated there are substantial financial and operational barriers to integrate regional and short line railroads into the existing AskRail® electronic train consist system created by Class I railroads, and that PHMSA failed to account for these burdens properly. ASLRRA estimated that approximately 100 regional and short line railroads provide electronic train consist information to AskRail through Wabtec's Train Management System (TMS).[37] ASLRRA identified an additional 210 Wabtec TMS users who do not integrate their data into AskRail®, and would need to retrain staff and modify existing processes to integrate data into AskRail®. ASLRRA identified a final group of approximately 200 regional and short line railroads who do not use Wabtec TMS and would also need to modify existing systems and processes to integrate into AskRail®. ASLRRA grouped these regional and short line railroads together and stated that a total of 410 regional and short line railroads would be subject to economic burdens associated with providing real-time electronic train consist information.

ASLRRA claimed PHMSA substantially undervalued the cost burden by indicating that only 41 regional and short line railroads would bear significant economic burdens in the preliminary regulatory impact analysis (PRIA) that supported the NPRM. ASLRRA also stated that the estimate of $18,000 to obtain and implement a real-time electronic train consist system and $5,500 per year to maintain the system was significantly too low; they estimated that a more reasonable estimate was at least $100,000 to obtain and implement a system that would meet the requirements of the proposed rule.

Finally, ASLRRA stated PHMSA failed to account for the unique challenges faced by small businesses, including failure to propose a delayed compliance date for small businesses, and failure to account for the overall lower level of technological integration among the regional and short line railroads.

PHMSA's Response

In this final rule, PHMSA is adopting the scope of the requirement as proposed—all railroads that carry hazardous materials in the United States must comply with the requirements adopted in this rule. However, acknowledging the additional organizational and technological challenges facing Class II and III railroads, PHMSA is providing a two-year delayed compliance period for those railroads. This two-year period is intended to allow time for these railroads to make the necessary changes to their operating systems and staffing to comply with the real-time electronic train consist information requirements.

PHMSA acknowledges that Class III railroads have unique operational and resource constraints that make the retention and real-time transmission of electronic train consist information more difficult for these small businesses compared to larger Class I and II railroads. Therefore, PHMSA is adopting an alternative compliance method for Class III railroads. This alternative compliance method is discussed in depth below.

PHMSA does not concur with ASLRRA's assessment that it lacks the statutory authority to implement real-time train consist requirements for all railroads that transport hazardous materials in commerce. Applying this rulemaking to regional and short line railroads is neither in conflict with PHMSA's statutory authority nor the FAST Act as amended. PHMSA also disagrees that it failed to account for different risks presented by regional and short line railroads, or that PHMSA failed to meet its responsibilities under the Regulatory Flexibility Act to reduce unnecessary burdens on small businesses.

First, although the statutory mandate in the FAST Act—as modified by the Investment Infrastructure and Jobs Act—directed PHMSA to apply the rulemaking to Class I railroads, PHMSA has a separate general authority to regulate the transportation of hazardous materials. The Federal Hazardous Materials Transportation Act (HMTA; 49 U.S.C. 5101 *et seq.*) at 49 U.S.C. 5103 gives the Secretary broad 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. PHMSA is utilizing this general authority to include regional and short line railroads in the scope of this rulemaking. The NTSB, Attorneys General, and SMART–TD support the inclusion of all railroads that transport hazardous materials in the United States in this rulemaking.

Second, although the 2005 incident in Anding, Mississippi, that led to NTSB Safety Recommendation R–07–04 involved a Class I railroad, Safety Recommendation R–07–04 recommends all railroads immediately provide real-time train consist information to emergency responders following an accident or incident involving rail transportation of hazardous material. Additionally, regional and short line railroads have been involved in serious hazardous materials incidents in the past. These incidents include the 2012 derailment of a Conrail (Class III) freight train in Paulsboro, New Jersey; [38] the devastating 2013 derailment of a unit train of crude oil operated by the Montreal, Maine, & Atlantic railroad (Class II) in Lac Megantic, Quebec; [39] and the 2023 derailment of a Montana Rail Link (Class II) train near Reed Point, Montana, which released molten sulfur and asphalt into the Yellowstone River.[40] Regional and short line railroads move substantial amounts of

[36] ASLRRA members accounted for $ 1.3 million dollars in damages related to hazardous materials releases in the rail mode in the United States, compared to $1.06 billion dollars of damages caused by Class I railroads.

[37] PHMSA provided the funding for this integration through a grant in 2020. *See* PHMSA, Notice ID No. 693JK320P000014, ''Statement of Work and Sole Source Justification: Transportation Management Consist Information'' (Award Date May 14, 2020).

[38] *See https://www.ntsb.gov/investigations/AccidentReports/Reports/RAR1401.pdf.*

[39] *See https://www.tsb.gc.ca/eng/rapports-reports/rail/2013/r13d0054/r13d0054-r-es.html.*

[40] *See https://www.ntsb.gov/investigations/Pages/HMD23LR002.aspx.*

hazardous materials—as of late 2023, six Class II railroads and six Class III railroads had filed Comprehensive Oil Spill Response Plans with PHMSA, indicating they transport or plan to transport a train carrying 20 or more loaded tank cars of liquid petroleum oil in a continuous block, or train carrying 35 or more loaded tank cars of liquid petroleum oil throughout the train consist.[41] Regional and short line railroads transport hazardous materials, and therefore their operations create a risk of serious incidents involving the releases of hazardous materials.

Third, PHMSA finds ASLRRA's argument that movement of hazardous materials by regional and short line railroads represents lower risks due to lower speed and less complex train operations unpersuasive. For example, ASLRRA's comment fails to present information related to the class of track used by these railroads when discussing low-speed operations. While ASLRRA is correct that lower speeds are associated with lower conditional probability of releases during derailments, operating on lower class track also is associated with a higher risk of derailment.[42] Lower speed derailments do not eliminate the possibility of hazardous materials releases during accidents—tank shell breaches, service equipment failures, and other causes of hazardous materials releases can, and do, still occur with derailments below 25 mph.

Lower speed operations do not impact the probability of non-accident releases (NARs) at all. NARs are typically caused by failures in tank car service equipment used to load and unload tank cars, such as the tank car's manway or valves due to poor maintenance, improper usage, or environmental conditions. While many NARs are minor, some NARs create emergency situations that would implicate the notification requirements adopted in this final rule due to the volume or hazards of the materials released.

Finally, ASLRRA's argument fails to acknowledge that a significant percentage of regional and short line train movements do occur at the full operating speed for train equipment, up to 70 miles per hour for a train containing tank cars, the predominant bulk packaging used for the rail transportation of hazardous materials.[43]

Despite less complex operations and slower average speeds, trains operated by regional and short line railroads have derailed and released hazardous materials with serious consequences and likely will again. Therefore, PHMSA does not believe it is justifiable to exclude these types of railroads from the scope of this rule.

Fourth and finally, PHMSA does not agree this rulemaking places an undue burden on small businesses, or that PHMSA has failed to properly account for this burden. In its comment, ASLRRA stated PHMSA substantially under-counted the number of regional and short line railroads that would be subject to significant financial burdens. In the PRIA that supported the NPRM, PHMSA estimated 500 regional and short line railroads are working with Wabtec (250 using TMS, and 250 not using TMS). In its comment, ASLRRA stated that 100 of their member railroads are using Wabtec's TMS and sending data to AskRail®; 210 use Wabtec's TMS with no AskRail integration; and 200 railroads are either not using Wabtec's TMS or using a competing suite of train management system software. Of the 95 regional and short line railroads that PHMSA estimated are not working with Wabtec, PHMSA further estimated that 41 had fewer than five employees, and would therefore face the highest compliance costs, primarily by hiring additional staff to comply with the designated emergency point of contact requirement. PHMSA's intention in highlighting these 41 short line railroads was not to say they were the only regional or short line railroads that would bear additional compliance costs, but that this population of railroads would bear the highest percentage of compliance costs due to their very small size.

PHMSA concurs that some Class III railroads may be unable to comply with the real-time electronic train consist requirements due to their very small size, which limits both the number and type of employees available for their operations and constrains their ability to acquire necessary technology. PHMSA also acknowledges that Class III railroads, which have very short rail networks compared to Class I and II railroads, are in a strong position to develop close relationships with emergency response organizations and primary PSAPs in their area of operation. Therefore, in this final rule, PHMSA is adopting an alternative compliance method for Class III railroads, allowing them to comply with either the requirements applicable to Class I and II railroads or this alternative compliance method. Wabtec data shows that many Class III railroads already provide information to the AskRail® or could provide data to AskRail® with only very minor modifications to their systems, and PHMSA expects these railroads will likely choose to comply with the requirements on this final rule in the same ways as Class I and II railroads. Otherwise, Class III railroads must follow all key provisions of the alternative compliance method, which are listed below:

1. Create a written plan that identifies the procedures the Class III railroad will follow to provide emergency notification and transmit accurate train consist information in the event of an incident or accident involving hazardous materials that requires a response from local emergency response agencies. The procedure must assign at least one person not onboard the locomotive with the responsibility to provide accurate train consist information to local emergency response agencies and/or primary PSAPs in addition to assigning this responsibility to the train crew onboard the locomotive, unless there are no employees of the Class III railroad capable of fulfilling this function.

2. Provide notification to all local emergency response agencies and primary PSAPs along their route about the contents of the written plan (and any material changes thereto after initial notification).

3. Enact the written plan when an incident or accident occurs.

4. Retain a copy of the written plan and provide a copy to authorized representatives of the Department upon request.

5. Conduct a test at least annually that demonstrates that the plan is effective for providing emergency notification and accurate train consist information to local emergency response agencies.

This alternative compliance requirement will provide an improved level of safety from the status quo by requiring Class III railroads to plan for emergency situations and inform local emergency response agencies and primary PSAPs about how they will provide notification of the emergency and train consist information to the responding agencies. Class III railroads have the flexibility to determine how they will provide train consist information. Example methods that

[41] *See* 49 CFR 130.100.

[42] See Barkan and Kawprasert 2010 ''Track with higher Federal Railroad Administration classes has lower accident rates. . .'' (*https://railtec.illinois.edu/wp/wp-content/uploads/pdf-archive/Kawprasert-and-Barkan-2010.pdf*) and Barkan et al. 2014. ''The analysis shows that signaled track with higher FRA track class and higher traffic density is associated with a lower derailment rate.'' (*https://railtec.illinois.edu/wp/wp-content/uploads/pdf-archive/Liu-et-al-2017-Freight-train-derailment-rates-for-railroad-safety-and-risk-analysis.pdf*).

[43] See HM–251 pgs. 26683–26692 for further details on considerations related to train operating speed (*https://www.govinfo.gov/content/pkg/FR-2015-05-08/pdf/2015-10670.pdf*).

PHMSA anticipates Class III railroads may use include, but are not limited to, telephone call; radio call on a pre-arranged emergency communication frequency; email transmission to a pre-arranged email address; and physical handover of train consist documents. PHMSA emphasizes the importance of training, especially function-specific training that complies with Part 172 subpart H, for any employee assigned the responsibility to provide train consist information to emergency response agencies, whether an engineer, conductor, office staff, or other.

We also require that Class III railroads assign the responsibility for providing train consist information to at least one person who is not on the locomotive in order to address the possibility that the train crew is incapacitated or unavailable after the incident occurs. There may be scenarios, in particular for very small Class III railroads with fewer than five employees, where there is no employee capable of providing train consist information to emergency response organizations except for those employees operating the locomotive. In this situation, it is acceptable for the plan to only assign the responsibility to provide train consist information to emergency response organizations to those employees on the locomotive. PHMSA understands that Class III railroads operating locomotives without employing any office staff capable of transmitting train consist information during train operation represent a very small fraction of trains that carry hazardous materials daily in the United States.

Based on the information received from commenters and the creation of the Class III alternative compliance method, PHMSA has adjusted the cost estimates in the final Regulatory Impact Analysis (RIA) supporting this rulemaking in the following ways:

- Updated the number of railroads to six Class I railroads, 14 Class II railroads, and 638 Class III railroads.
- Removed the cost of assigning an emergency point of contact from the cost estimation because Class III railroads are allowed to designate personnel in the locomotive as an emergency response point of contact if there are no other employees capable of performing this function.
- For Class III railroads that are not currently working with a vendor and using train management systems (TMS), removed the cost of producing and sharing electronic real-time train consist information and added the cost of the alternative method of compliance.

In conclusion, PHMSA will adopt the scope of the rule as proposed—all railroads that transport hazardous materials in commerce in the United States must comply with the requirements adopted here. However, in consideration of the challenges facing Class II and III railroads, PHMSA will allow a longer compliance period for these railroads, and PHMSA will allow an alternative compliance method for Class III railroads.

C. Emergency Notification of Rail Accidents and Incidents Involving Hazardous Materials

In the NPRM, PHMSA proposed a requirement for railroads to promptly notify and provide real-time train consist information electronically to every state-authorized local first responder organization within at least a 10-mile radius of an accident or incident involving the transportation of hazardous materials by rail. PHMSA received numerous comments on this proposed requirement. The Ohio Department of Public Safety (Ohio DPS), NTSB, and the Attorneys General support the emergency notification requirement. These organizations stated that providing real-time train consist information directly to local first responder organizations in the immediate aftermath of an emergency situation involving rail transportation of hazardous materials is the best way to ensure critical information regarding the contents and position of railcars makes it to the responders who need it most.

NTSB and the Attorneys General additionally requested that PHMSA define ''promptly'' with a specific time period within which the notification must be made. NTSB suggested PHMSA expand the proposed notification requirement to include all accidents involving trains transporting hazardous materials, even if no hazardous materials release was suspected.

Other commenters, including the Maine Department of Environmental Protection & Maine Emergency Management Agency (Maine DEP & EMA), Association of Public Safety Communications Officials (APCO), IAFC, the National Emergency Number Association/National Association of State 911 Administrators (NENA/NASNA), the Pinsky Law Group, and American Federation of Labor and Congress of Industrial Organizations Transportation Trades Department (AFL–CIO TTD), generally supported the emergency notification requirement, but requested substantive modifications or clarification to improve the effectiveness of the notification.

Maine DEP & EMA and AFL–CIO TTD requested that PHMSA expand the minimum notification radius beyond 10 miles to account for rural areas where there are no first response organizations within 10 miles of railroad tracks, and to ensure the notification is also received directly by organizations with mutual-aid agreements with the first response organization covering the incident location. Maine DEP & EMA, AFL–CIO TTD, and APCO suggested providing the emergency notification to the primary PSAP (*e.g.,* 9–1–1 call center) that covers the incident location, in addition to direct notification of first response organizations, in order to provide redundancy and improve the chances that the notification and train consist are received by the responding agency in a timely manner. IAFC and the Pinsky Law Group requested that the emergency notification be made only to the primary PSAP to avoid confusion, and to align with existing procedures for centralized command and control of response resources during emergencies. Specifically, IAFC and the Pinsky Law Group noted that especially in metropolitan areas, a mass notification provided directly to all response organizations within 10 miles could create confusion among the recipients of the notification and prevent the orderly dispatch of the proper response assets to the incident site.

NENA/NASNA and APCO cautioned PHMSA that while primary PSAPs are designed to accept telephone calls regarding emergency situations, their capacity to accept email or app-based notifications of emergencies, as well as to transmit information to responders, is limited and not consistently similar across their network. In particular, transmission of information is limited by training and technology, and could require substantial investment by primary PSAPs to enable the transmission of electronic train consist information in graphical format to responders in the field. They stated that while primary PSAPs must be notified of emergencies involving the rail transportation of hazardous materials, they should not be relied upon as the sole way to provide train consist information to responding agencies.

Several organizations that represent commuter and passenger railroads—New York State Metropolitan Transportation Authority, Commuter Rail Coalition, and the American Public Transportation Association—requested that PHMSA include them in the category of persons who must be notified if there is a release or suspected release of a hazardous material from a freight train operating on their tracks. Amtrak additionally requested that PHMSA include them in the category of

persons who must be notified if there is a release or suspected release of a hazardous material from a freight train operating on their tracks or within a 10-mile radius of their tracks.

Washington State Department of Ecology and Washington Utilities and Transportation Commission (Ecology and UTC) and the Attorneys General requested that PHMSA adopt a requirement for railroads to conduct periodic tests of their emergency notification system to ensure the system will function in an actual emergency.

AAR opposed the inclusion of the emergency notification requirement as proposed. AAR stated that the 10-mile radius is arbitrary, inconsistent with current emergency response procedures, and not mandated by the FAST Act. AAR stated that the 10-mile radius is inconsistent with existing DOT Special Permits for train consists maintained on electronic devices, which require railroads to notify the emergency response agency having jurisdiction, rather than every first response organization in an area. Finally, AAR made an argument similar to IAFC and the Pinsky Law Group that the mass notification of all first responders in an area was likely to create confusion and prevent the incident commander from exercising control over the incident scene.

PHMSA's Response

PHMSA appreciates the comments received on this issue. Based on the comments received, PHMSA has determined the original proposal that required providing broad notification directly to all local first responders within a 10-mile radius, while likely to be effective in ensuring that the train consist information is received firsthand by the responding entity, could also create negative consequences during the initial stages of emergency response. In particular, the requirement to notify all local response organizations within a 10-mile radius could disrupt the incident command structure by causing unneeded self-deployments by entities receiving train consist information to the incident area and create confusion among jurisdictions not directly impacted by the event. However, PHMSA concurs with commenters who point out the value in a proactive emergency notification requirement, which provides another avenue to share train consist information with the incident commander and aid responders in preparing for arrival at the scene.

Therefore, in this final rule, PHMSA adopts an emergency notification requirement but modifies the required recipients to only the:

- Primary PSAP (*e.g.,* 9–1–1 call center) responsible for the area where the incident occurred; and
- Track owner (if the track owner is different than the railroad operating the train).

The primary PSAP is best positioned to receive a telephonic notification of an accident/incident; receive an electronic copy of the train consist information; and then efficiently provide the electronic train consist information to the appropriate entities within incident command structure according to operating policy.

PHMSA recognizes that training, technology, and resource availability constrain primary PSAPs, particularly in rural areas, and some may lack the ability to electronically transmit train consist information from the railroad directly to responders' equipment. However, PHMSA expects that even in these circumstances, the primary PSAP is best positioned to identify the responding entity to the railroad and serve as a conduit for passing contact information, verbally if necessary, to connect the railroad and the responding agency. In addition, PHMSA provides funds to all states through the Hazardous Materials Emergency Preparedness (HMEP) grant program that can be used to ensure PSAPs can make changes to train personnel and prepare for implementation of this rule. In this final rule, PHMSA is also clarifying our expectation that the railroad coordinate with the primary PSAP to provide the electronic train consist information in a format that is readily accessible to the PSAP based on the information technology resources they have available.

PHMSA, in this final rule, is adopting a series of adjustments to the proposals in the NPRM—including longer compliance timelines for Class II and III railroads; annual testing requirements for railroad emergency notification systems (§ 174.28(b)(2)); and requirements for Class III railroads to provide to local emergency response personnel and primary PSAPs (and annually test) written emergency notification plans (§ 174.28(c))—to facilitate collaboration between railroads, emergency response organizations, and primary PSAPs in navigating any obstacles to effective implementation of the final rule's requirements. PHMSA also provides millions of dollars of grant funding annually to states through the HMEP program [44] that can be used to prepare primary PSAPs to receive and disseminate this information.

Lastly, PHMSA expects that railroad trade organizations will (consistent with their historical practices and commitments to public safety and environmental protection) serve as resources to assist their members and other stakeholders in complying with the requirements introduced by the final rule.

PHMSA emphasizes that the emergency notification to the primary PSAP adopted in this final rule is the minimum requirement. PHMSA expects that during emergencies railroads will work closely with the primary PSAP to identify the responding entity and incident commander, and provide the train consist information to the incident commander as quickly as possible given the circumstances of the accident or incident.

Regarding NTSB and the Attorneys' General request that PHMSA define ''promptly'' with a specific time period, PHMSA concurs that some additional specificity related to this requirement would be helpful because use of the term ''prompt'' may not create the same sense of urgency for all parties subject to the requirement. However, PHMSA's position is not to adopt a requirement for a specific time period, which may be too prescriptive for all circumstances and not materially impact safety while diverting attention to whether the specific time requirement is satisfied rather than whether train consist information is transferred to the appropriate persons. In this context, our intent in the NPRM was that ''promptly'' meant that railroads must issue the notification as soon as railroad personnel became aware of an accident, or incident involving the release or suspected release of hazardous materials.[45]

Railroads should not delay the emergency primary PSAP notification to contact other entities first (*e.g.,* private hazardous materials response contractors). Notification and provision of train consist information to other entities, like private response contractors, may occur simultaneously with the primary PSAP emergency notification; however, the railroad must

[44] *https://www.phmsa.dot.gov/about-phmsa/working-phmsa/grants/hazmat/hazardous-materials-emergency-preparedness-hmep-grant.*

[45] See, *e.g.,* 88 FR at 41542 and 41550 (emphasizing the importance of immediate availability of train consist information for the railroad emergency points of contact); 41544–46 (emphasizing the importance of immediate availability of consist information in the NTSB's analysis of the Anding, Mississippi, accident); and 41546–47 (emphasizing the importance of the availability of avoiding delay in getting train consist information to emergency response personnel in the ''critical moments immediately following an accident or incident.'').

prioritize notification and transmission of train consist information to the primary PSAP to protect the lives of local first responders, emergency response officials, law enforcement personnel, and other persons near the incident site.

Therefore, in order to communicate the NPRM's intent more clearly for the emergency notification requirement in § 174.28(b), in this final rule, PHMSA is revising the regulatory text by replacing ''promptly'' with ''immediately.'' PHMSA finds this clarifying revision would better align with current HMR requirements using the word ''immediately'' in similar contexts (*e.g.,* § 172.600 ''Emergency response information conforming to this subpart is *immediately* available for use . . .''). PHMSA believes aligning § 174.28(b) with this existing language will better communicate the urgency of the emergency notification requirement.

Regarding the NTSB's comments suggesting that PHMSA require notification for accidents involving trains carrying hazardous materials even when a hazardous materials release does not occur or is not suspected, PHMSA's original intent for the proposed requirement aligns with this suggestion. Yet, because the proposed requirement was not clear to entities such as the NTSB, PHMSA believes further clarification is warranted. The proposed language required emergency notification in two circumstances for a train carrying hazardous materials:

- Accident (*e.g.,* a collision, derailment or fire); or
- Incident involving the release or suspected release of a hazardous material from a rail car (*e.g.,* release of hazardous material through an improperly secured tank car manway or malfunctioning valve).

In this final rule, PHMSA adopts this requirement with an editorial revision to clarify that railroads must send the emergency notification and train consist information for accidents and incidents that would each require a response from local emergency response agencies. A railroad must provide the emergency notification for any accident involving a train carrying hazardous materials, even if there is no release or suspected release of hazardous materials, if the circumstances of the accident require response from local emergency response agencies. This will ensure that emergency response agencies are aware of the hazardous materials on a train involved in an accident in their jurisdiction, even if those hazardous materials do not initially present an immediate danger.

For example, the five tank cars containing vinyl chloride involved in the East Palestine, Ohio, derailment and fire did not release their contents during the accident, yet their presence in the accident area eventually resulted in a controlled vent and burn procedure several days later. In future rail accidents and incidents, it is likely that similar situations will occur—specifically that hazardous materials will not be released immediately but their presence will necessitate evacuations or other specific emergency response activities to mitigate the hazards that they pose even while still contained in their packaging. Notifying the emergency response command of the presence of hazardous materials in a rail accident, even if those materials are not immediately released, or suspected to have been released, is critical to ensuring that proper response and mitigation resources are activated for the event.

Regarding the comments submitted by New York State Metropolitan Transportation Authority, Commuter Rail Coalition, the American Public Transportation Association, and Amtrak, PHMSA concurs that there is value in requiring a freight railroad to provide immediate notification of an accident or incident to the track owner when a freight railroad uses another railroad's tracks. It is PHMSA's understanding that many local first responders are trained to contact the track owner when a rail accident or incident is reported, so ensuring the track owner is informed of the event and also has train consist information at hand will increase the likelihood that the information is successfully provided to the appropriate responding agencies. Additionally, some commuter and passenger railroads, like Amtrak, employ authorized local first responders, emergency response officials, and law enforcement personnel, who would likely be among the first responders to any hazardous materials accident or incident on their tracks.

Regarding the comments submitted by Ecology and UTC, and the Attorneys General, suggesting the creation of a requirement to test the emergency notification system, PHMSA concurs. It is a logical extension of the proposed emergency notification requirement to have railroads conduct tests of their system to ensure it functions effectively in an emergency. PHMSA anticipates these system tests will create only a minor burden for railroads, and since the number of tests and locations for the tests scale with a railroad's network (*i.e.,* a smaller railroad with a small track network will require fewer tests to validate system reliability across that network), the requirement will not create an undue burden for regional and short line railroads. Class III railroads implementing the alternative compliance requirements adopted in this final rule must also conduct an annual test of their emergency notification and communication plan. PHMSA's analysis shows that this requirement will create an average annual cost burden of $19,843 for all Class I railroads combined, $46,229 for all Class II railroads combined, and $149,393 for Class III railroads combined (2022 dollars).

In consideration of comments received and our analysis, PHMSA adopts a requirement for railroads to test their emergency notification system or emergency communication plan at least annually; to create and retain records of the results of the test; and to review any test failures to determine corrective action to prevent reoccurrence. PHMSA is not adopting prescriptive, one-size-fits-all requirements regarding the number and location of these tests. Each railroad is best positioned to determine the number of tests and their locations required in order to demonstrate that their emergency notification system is reliable and serves the intended purpose to notify primary PSAPs and track owners of a hazardous materials-related incident.[46] PHMSA is also requiring that in the event the recipient of the test notification does not receive and acknowledge receipt of the notification, the railroad involved must conduct a review to determine the cause of the test failure, and identify corrective action to avoid a similar failure in a real accident or incident scenario.

In conclusion, PHMSA is modifying the emergency notification requirement to require the railroad operating the train involved in an accident that requires response from local emergency response agencies, or an incident involving the release or suspected release of a hazardous material that requires response from local emergency response agencies, must provide immediate telephonic notification and

[46] PHMSA notes that it expects that railroad operators will perform such testing in good faith and in a manner that will be effective in light of the unique public safety and environmental risks they are best positioned to identify along their routes. By way of example, annual testing verifying communications with the same primary PSAP(s) year-after-year while entirely neglecting others along their routes would likely not be an effective approach. Similarly, it may be prudent for railroads to prioritize verification of effective communications and response as coordinated by a sample of resource-constrained primary PSAPs in rural areas along their routes.

an electronic copy of the train consist information to the primary PSAP responsible for the area where the incident occurred and the track owner (if the track owner is different than the railroad operating the train). PHMSA is also adopting a requirement for railroads to conduct tests of their emergency notification system or emergency communication plan, and create and retain records of the results of the tests and any necessary corrective action.

D. Defining the Recipients of Train Consist Information

In the NPRM, PHMSA proposed to require that railroads provide 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. Separately, PHMSA proposed to require that railroads provide prompt notification of an incident to state-authorized local first responders within a 10-mile radius of an accident involving a train carrying hazardous materials or an incident involving the release or suspected release of hazardous materials.

Several commenters, including the Ohio Department of Public Safety (Ohio DPS), Attorneys General, Maine DEP & EMA, and Illinois Commerce Commission (CC) requested greater specificity regarding the intended recipient of the real-time train consist information. The Attorneys General and Maine DEP & EMA specifically noted that as written, the regulatory language does not specify who determines which emergency response entities are authorized to receive the train consist information, and further stated their position that all relevant first responders must have access to and receive electronic train consist information, without overburdening local PSAPs.

The National Association of SARA Title III Program Officials (NASTTPO) and a private individual requested that PHMSA expand the intended audience of real-time train consist information to any person or organization involved in emergency response to a rail incident involving hazardous materials, including volunteers and those without ''.gov'' email addresses. NASTTPO requested that PHMSA either remove the word ''authorized'' from § 174.28(a) or clearly describe an appropriate authorization process for persons seeking access to real-time train consist information. NASTTPO suggested several revisions to § 174.28, with the intention of prohibiting railroads from excluding persons or organizations from access to real-time train consist information based on factors like a lack of a ''.gov'' email address, or membership in non-traditional response organizations beyond the typical fire, law enforcement, and emergency medical services agencies.

AAR requested greater clarity on the intended audience for real-time train consist information, and that PHMSA narrow the scope to only those personnel directly involved with accident/incident response and mitigation. Specifically, AAR criticized the NPRM's proposals for ''seem[ing] to disregard the accepted, streamlined approach to emergency response as outlined in the Federal Emergency Management Agency's (FEMA) National Incident Management System (NIMS)'' in favor of a ''shotgun approach that sprays information out to people that do not need the information and requires the provision of information . . . at times unnecessary for emergency response.'' [47] AAR elaborated on this criticism by noting that in the NPRM, PHMSA used the phrase ''emergency response personnel'' to describe the intended audience of real-time train consist information in the rule preamble and defined that term as ''any personnel from any federal [agency] (*e.g.,* PHMSA, FRA, NTSB, U.S. Environmental Protection Agency (EPA), or Federal Emergency Management Agency personnel), or organizations that state or local governments authorize to perform emergency response activities.'' AAR stated that this definition conflicts with the definition of ''emergency response personnel'' in 15 U.S.C. 2223e,[48] which defines the term as ''personnel responsible for mitigation activities in a medical emergency, fire emergency, hazardous material emergency, or natural disaster.'' AAR requested that PHMSA adopt this 15 U.S.C. 2223e definition as the intended recipient of the real-time train consist information, and specifically remove reference to federal agencies involved in post-incident investigations, inspections, or management.

[47] AAR, Doc. No. PHMSA–2016–0015–0043, ''Comments Submitted by AAR'' at 3.

[48] *https://www.govinfo.gov/content/pkg/USCODE-2021-title15/pdf/USCODE-2021-title15-chap49-sec2223e.pdf.*

PHMSA's Response

First, as discussed above in Section IV.C, PHMSA is, in response to comments received on the NPRM, adjusting its proposed requirement to provide emergency notification to every state-authorized local first responder within a 10-mile radius of the incident/accident with a requirement to notify and provide electronic train consist information to the primary PSAP responsible for the area where the accident or incident has occurred, and the track owner (if the railroad operating the train is not the track owner) in a form they are capable of readily accessing. This revision provides further clarity on the intended recipient of the emergency notification, as requested by Ohio DPS and Illinois CC.

This adjusted approach better channels notifications of an incident/accident and safety-critical train consist information through primary PSAPs that are critical elements within NIMS's emergency response infrastructure precisely because they are well-positioned to identify resources that can effectively respond to an accident/incident or which are most likely to be adversely affected by an accident/incident.

PHMSA further submits that other measures adopted in this final rule—pertaining to compliance timelines, development parameters, annual testing requirements for emergency notification systems, and written emergency notification plans (each discussed in section IV.C above)—will also provide opportunities for continual fine-tuning practical implementation (including integration within NIMS architecture) of the notification requirements adopted in this final rule.

PHMSA appreciates the comments from the Attorneys General, AAR, and NASTPPO, Maine EMA & DEP, and a private individual seeking greater clarity on the intended audience for real-time train consist information. PHMSA does not concur with AAR's request to revise the requirements of § 174.28(a) to exclude federal agencies involved in the investigation of an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials from the intended audience of real-time train consist information. PHMSA is not aware of, and AAR has provided no evidence of, any real-world situations where provision of train consist information to federal agencies or other emergency response organizations has in fact hindered emergency response activities.

PHMSA stresses that this requirement does not require that railroads provide

any federal employee from any agency with train consist information. Certain federal agencies are involved in the response to, and investigation of, rail accidents and incidents involving the transportation of hazardous materials. Accurate real-time train consist information is critical to employees performing these functions. Therefore, railroads must provide real-time train consist information to those federal personnel who are performing these emergency response and investigatory functions. This requirement does not impose burdens on railroads that work to the detriment of emergency response. Federal agencies are not seeking preferential treatment, or special consideration for access to real time train consist information. Federal agencies simply seek access to real-time train consist information commensurate with their response and investigatory mandates. However, PHMSA does acknowledge that since the term ''emergency response personnel'' is already defined in a federal statute, it would be appropriate to consistently use language that aligns more closely with the FAST Act mandate, specifically ''authorized Federal, State, and local first responders, emergency response officials, and law enforcement personnel'' when discussing the intended audience of the real-time train consist information in this rulemaking.

Regarding the Attorneys General, Maine DEP & EMA, a private individual, and NASTPPO's comments, it is PHMSA's opinion that the word ''authorized'' in the phrase ''authorized Federal, State, and local first responders, emergency response officials, and law enforcement personnel'' means those persons authorized by an appropriate authority (*e.g.,* a town, city, county, state, or federal agency) to take part in the response to, or investigation of, an accident or incident involving the transportation of hazardous materials by rail. PHMSA is unaware of any single entity that performs this authorization process for all response organizations nationwide.

As suggested by Maine DEP & EMA, state-level Emergency Management Agencies (EMAs) have a substantial role to play in determining which organizations within a state are authorized to respond to and investigate accidents and incidents involving the transportation of hazardous materials by rail. However, PHMSA does not have sufficient information to require that state-level EMAs, and only state-level EMAs, perform this function. PHMSA submits that as a federal agency with the responsibility and authority to enforce regulations related to the transportation of hazardous materials, PHMSA could serve as an informal arbiter of disputes related to access to electronic train consist information.

Regarding NASTPPO and a private individual's comments that PHMSA should recognize the value of emergency response carried out by volunteers and members of organizations not traditionally responsible for responding to a rail emergency involving hazardous materials (*e.g.,* health care providers), PHMSA acknowledges that in many communities, especially in rural areas, emergency response responsibilities fall on volunteers and non-traditional responders. PHMSA appreciates NASTTPO's suggestions for revisions to the language in § 174.28. PHMSA concurs that the variety of jurisdictions, legal authorities, and scenarios regarding emergency response would make it impossible to define a separate authorization process in this rule or fully discuss every possible eventuality in this document or any associated guidance. However, revising the text of the proposed rule as requested [49] is too substantial a departure from the text of the FAST Act and the NPRM proposal.

Although PHMSA is not adopting the regulatory language suggested by NASTTPO, PHMSA cautions railroads that refusing to allow access to electronic train consist information simply because the requestor lacks a ''.gov'' email address is too simplistic. Railroads must consider additional information and context, including a person's membership in volunteer response organizations and documentation verifying their authorization to conduct emergency response on behalf of communities they support when determining eligibility for access to electronic real-time train consist information.

[49] NASTTPO's suggested revision to § 174.28: In determining which individuals should have access to train consist information via a software application, railroads may not limit access to only individuals with government email addresses. The railroads must allow access to individuals that can document membership in a volunteer organization that may be engaged in emergency response activities during a hazardous materials incident. Such documentation may include a letter from the management of the volunteer organization, local emergency manager, fire or police chief, or a local emergency preparedness organization, such as the local emergency planning committee, state homeland security, emergency management or transportation agency, or state emergency response commission. In each community the first persons responding to an incident may be variable and may well be beyond formal fire, law enforcement, and emergency medical services agencies. These individuals and each community should self-identify to the railroad when obtaining access to software applications providing train consist information consistent with the provisions of part (d).

E. Maintenance of Both Paper and Electronic Train Consists

In the NPRM, PHMSA proposed to require that railroads maintain two forms of up-to-date copies of the train consist information. One copy was proposed to be a physical, printed (*i.e.,* paper) copy in the possession of the locomotive's crew—note that the HMR currently requires this—while the other copy was the real-time train consist maintained in electronic form off the train.

Ecology and UTC, AFL–CIO TTD, Attorneys General, IAFC, SMART–TD, and NTSB supported the requirement to maintain both an up-to-date printed paper copy of the train consist in the locomotive or with the train crew and an electronic copy maintained off the train. These organizations cited benefits to emergency response by maintaining redundant copies of the train consist information so that responders would be more likely to be able to access the information during emergency scenarios when cellular data connectivity is lost or is not available, especially in rural and remote areas.

AAR opposed this proposed requirement to maintain two copies of the train consist information, including a printed paper copy document in the locomotive. AAR stated that proposed requirement exceeded the FAST Act mandate, was unnecessarily duplicative, and provided no safety benefit. AAR stated that real-time electronic train consist information maintained off the train is more accurate than relying on train crews to manually update stacks of paper train consists, and that if the copies of the consist did not match, it would create confusion during emergency response.

Finally, AAR stated that continuing to require printed paper train consist documents in locomotives would prevent railroads from realizing economic savings and reducing their carbon footprint caused by printing ''millions of sheets of paper'' and providing the electricity and ink required to maintain printers across their network. AAR requested that PHMSA eliminate the requirement for railroads to maintain duplicate copies of the train consist and allow railroads the ability to choose the form of the copy of train consist information in the locomotive, including the option of a paper copy, or maintaining a local electronic copy.

PHMSA's Response

In this final rule, PHMSA is adopting the proposed requirement for the train crew to maintain an up-to-date printed paper copy of the train consist information in the locomotive. This preserves the requirement that existed in the HMR prior to the adoption of this final rule. The printed paper copy of train consist information maintained in the locomotive or with the train crew has historically served as a critical resource for emergency responders during rail emergencies, and emergency responders are familiar with this format of information. At this time, the requirements for electronic maintenance and transmission of train consist information adopted in this final rule will complement—but not replace—the local printed paper copy of train consist information in the locomotive. PHMSA intends the crew's local printed paper copy to serve as a redundant backup to the electronic train consist requirements adopted in this final rule. The printed paper copy provides information to the crew on the location and hazards of the materials they are moving to protect themselves and others.

As noted above in Section IV.C, PHMSA has issued several special permits to railroads that allow these railroads to provide train crews with an electronic device that is capable of displaying and transmitting train consist information. PHMSA believes there is benefit in exercising these ''pilot projects'' to allow more time to evaluate their effectiveness in ordinary use and during rail emergencies before adopting this option into the HMR. In the meantime, PHMSA will allow holders of these special permits to continue operating in accordance with the conditions of the permits in order to gain this experience.

PHMSA may revisit this issue in the future, as we gain more experience with the existing special permits and other electronic hazard communication projects. As such and for the time being, we are retaining the baseline requirement that the train crew's copy of train consist information must be a printed paper document, and must be updated to reflect any changes in the train's composition due to pickups, set outs, or other work.

F. Availability of Train Consist Information in Real-Time

In the NPRM, PHMSA proposed that each railroad must provide electronic train consist information in such a way that it is immediately available for use by its intended recipients. In the NPRM preamble, PHMSA clarified the intent of this requirement by stating that the electronic train consist information must be provided and be accessible to recipients *prior to* the occurrence of an accident or incident in order to ensure it is immediately available at the onset of response efforts. Several commenters requested clarification or modification of this requirement.

AAR stated that PHMSA improperly implemented the FAST Act mandate by conflating the requirement to create and maintain train consist information in real-time, which they state is required by the FAST Act, with a requirement to provide real-time information to authorized recipients at all times, which they state is not required by the FAST Act. AAR requested that PHMSA revise § 174.28(a) to state that the real-time information must only be supplied during an accident, incident, or public health or safety emergency involving rail transport of hazmat.

The Attorneys General requested that PHMSA revise the regulatory language in § 174.28(a) to replace the word ''provide'' with the phrase ''make available.'' The Attorneys General stated that as written, paragraph (a) appears to require railroads to send notification of train movements and consist information to every authorized recipient at all times, which does not appear to be the stated intention of the requirement. Ohio DPS supported the requirement that train consist information be accessible at any time by authorized emergency response personnel, in order to inform responders of the risks at the scene as soon as possible. AFL–CIO TTD requested that PHMSA require railroads to proactively notify all PSAPs along the route of a train and provide the train consist information to these PSAPs, so that the train consist information would be immediately available in event of an emergency.

PHMSA's Response

It is not the intention of § 174.28(a) to require that railroads provide proactive notification about a train's movement and consist information to every emergency response organization or primary PSAP along the route during normal operations. This volume of information would be overwhelming; likely could not be managed in a safe and secure way by all recipients; and would ultimately defeat the purpose of the requirement by flooding authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel with huge volumes of non-critical information that could be confused with the critical information when an emergency event actually occurred. The only ''notification'' requirement in this final rule is found in § 174.28(b), which only applies when there is an actual accident involving a train carrying hazardous materials requiring response from local emergency response organizations or incident involving the release or suspected release of a hazardous material requiring response from local emergency response organizations.

The intent of the requirement in § 174.28(a) is that railroads [50] must create and maintain accurate train consist information for all trains carrying hazardous materials, and must maintain that information in an accessible or transmissible electronic format in such a way that it can be used by an authorized person at any point in time (*i.e.,* in real time). This ensures that the train consist information is available prior to an accident or incident and can therefore be accessed immediately when needed. PHMSA stresses the distinction between maintaining train consist information in a secure manner for availability (*i.e.,* at the ready) versus sending a notification of train movements. The former strikes the balance between security and accessibility of information while the latter is too insecure and unfocused to be useful.

In this final rule, PHMSA adopts the language as proposed, which aligns with the FAST Act mandate. Specifically, this requires that railroads transporting hazardous materials must ''provide'' electronic train consist information, to 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. PHMSA acknowledges the Attorneys General's concerns regarding potential confusion over the meaning and usage of ''provide,'' but believes this preamble discussion adequately explains the regulatory intent.

Regarding the method(s) used to fulfill this requirement, railroads have the flexibility to choose how to comply with this performance standard. Most will likely use an electronic database system, like the AskRail® system developed and used by all Class I

[50] As noted in Section IV.B and V.C, PHMSA is adopting an alternative compliance method for Class III railroads that does not require electronic transmission of train consist information. Class III railroads may choose to comply with the requirements in § 174.28(a) and (b) (requiring electronic transmission) or the alternative method in § 174.28(c).

railroads and some Class II and III railroads, that allows authorized individuals to access real-time train consist information with a query based on a railcar reporting mark or other train identifier. However, it is not PHMSA's intention to mandate use of the AskRail® system in the HMR. Railroads may choose other methods of providing this information than standing up an electronic database system, as long as they meet the standard in § 174.28(a).

G. Timing of Updates to Train Consist Information

In the NPRM, PHMSA proposed to require that train consist information be updated prior to continued movement of the train whenever a change to the train's makeup occurs (*e.g.,* addition or removal of railcars from the train) on both the train crew's printed paper copy, and on the electronic copy maintained off the train. The Attorneys General supported this requirement because requiring updates before the train moves ensures that authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel will have access to accurate information at all times.

AAR opposed this requirement. AAR stated that there are areas of the rail system that are not covered by any type of communication technology, and therefore the train crew would be unable to update the central train consist information database using electronic devices or radio communications in these locations.[51] AAR requested that PHMSA revise the requirement and have train crews update the copy of train consist information maintained on the central electronic database ''when practicable.''

AAR also requested revisions to § 174.26(b) to authorize means of notification besides electronic or radio communication; replace the word ''notify'' with ''synchronize;'' and make conforming edits to align with their request to remove the requirement that train consist information be maintained in both printed paper copy format in the locomotive and electronically off the train. See Section IV.E. ''Maintenance of Both Paper and Electronic Train Consists'' for more information on the latter request.

PHMSA's Response

It would defeat the purpose of the real-time train consist rule to allow the train to move without updating the train consist information maintained off the train, which acts as the primary method for providing electronic train consist information to responders. In the Anding, Mississippi, accident (see Sections III. D. ''How Does Train Consist Information Affect Rail Transportation Safety?'' and III. E. ''How Does Requiring Electronic Train Consist Information Affect Rail Transportation Safety?'' for further information on the Anding, Mississippi, incident), a change was made to the southbound CN train's make-up, and the train began moving without updating dispatch on the change to the train consist, which was a typical occurrence at the time.[52] When the accident occurred, the train consist information stored in CN's computer systems reflected the train's original makeup when it departed the Memphis yard, and did not reflect changes made to the train's makeup in the Greenwood, Mississippi, railyard—the setting out (removal) of 21 cars and pickup of 9 cars. After the changes made at Greenwood, the train did not pass an AEI reader before the collision occurred, and there was no way for the crew to communicate the change back to the central system.

It took hours to provide an accurate picture of the contents of railcars involved in the derailment to the responders after the accident because the crew was killed and the printed paper copy maintained by the crew was destroyed in the collision and subsequent fire; meanwhile, the electronic consist information maintained in CN's database was not up to date. The intention of this final rule is to prevent this kind of communication breakdown from occurring again.

Therefore, PHMSA adopts, as proposed, the requirement that the crew must update the off-train electronic consist information prior to movement of the train (note that Class III railroads complying with the alternative method adopted in this final rule are not subject to this requirement because they are not required to maintain train consist information in electronic form). If, for example, a railroad uses a system that involves AEI readers and changes to the train's makeup occurs in areas between AEI readers and without cellular data coverage, PHMSA expects that train crews will use methods such as voice radio or satellite communication to provide updates to a dispatch center where staff can make the necessary updates to the master electronic train consist to reflect the changes—the set outs and pickups.

AAR's suggested revision to allow the train crew to utilize means besides electronic or radio communication is acceptable. PHMSA encourages railroads to maintain flexibility around the means used to update the off-train electronic train consist, where PHMSA's concern is only that it is updated and accurate before the train moves again. However, PHMSA is not adopting the requested revision to replace ''notify'' with ''synchronize'' as PHMSA believes the proposed language is the clearest way to express our intention that both the local copy of the train consist information maintained in the locomotive and the remote electronic train consist information maintained off the train are updated and accurate at all times before movement of the train.

H. Applicability of Requirements to Freight Lines Operating on Commuter/Passenger Rail Track

PHMSA received several comments from organizations representing commuter and passenger railroads who own tracks that are used by freight railroads transporting hazardous materials. These organizations—New York State Metropolitan Transportation Authority, Commuter Rail Coalition, and the American Public Transportation Association—requested clarification regarding the applicability of the real-time train consist rule to their operations. As described, the railroads represented by these organizations do not operate freight trains, except for work trains engaged in maintenance of way activities.

PHMSA's Response

PHMSA's concurs with the commenters that the proposed language did not clearly distinguish applicability of proposed requirements between the railroad operating a train carrying hazardous materials and the railroad maintaining ownership of the track, and is therefore editorially revising the language in new § 174.28 in this final rule. The intention of the proposed requirements in the NPRM was to apply the real-time electronic train consist requirements to the railroad transporting hazardous materials—*i.e.,* the railroad operating the train.

In the scenario where a freight railroad is operating on tracks owned by a commuter or passenger railroad, the freight railroad operating the hazardous material train is responsible for complying with the real-time train consist requirements adopted in this final rule. To clarify this point, in this final rule PHMSA is modifying the regulatory language in § 174.28(a) and (b) to clearly indicate that the

[51] SMART–TD, a rail labor organization, also confirmed to PHMSA that there are areas of the rail network with no cellular data coverage.

[52] NTSB Report at 7.

requirements in this section apply to the railroad operating a train carrying hazardous materials.

I. Origin/Destination Information

In the NPRM, PHMSA proposed to require that railroads include origin and destination information with train consist information, in conformance with the FAST Act's mandate. In the NPRM, PHMSA explained its understanding of the ''origin and destination information'' information requirement to mean the origin and destination of the hazardous materials on the train subject to shipping paper information requirements.

PHMSA received several comments regarding this requirement. APCO and the Attorneys General supported inclusion of origin and destination information with train consist information. The Illinois CC requested clarification—specifically whether origin and destination can be recorded as a city/county; or whether the information on the origin also would include actual shipper information. IAFC supported inclusion of origin and destination information because it encodes information on the direction of travel of the train, which can be difficult to determine in the initial stages of a chaotic accident such as a derailment. IAFC explained that identifying direction of travel is important for determining railcar identity, and therefore the commodity contained within, during a response.

AAR opposed the inclusion of origin and destination information as proposed in the NPRM. AAR stated the proposed requirement to include the origin and destination of the hazardous materials carried on the train would be impossible to comply with, in particular for multi-modal shipments. AAR argued that a similar requirement for origin and destination information for hazardous materials is not required to be provided for any other mode of transportation, and that railroads would not be able to obtain origin and destination information from highway or vessel carriers performing the prior or subsequent legs of transportation. Additionally, AAR stated that origin and destination information is proprietary information for each carrier, and that revealing such information would compromise sensitive business information about their own operations and customers. Finally, AAR stated that origin and destination information is irrelevant for emergency response purposes and does not assist responders in the initial stages of an incident.

PHMSA's Response

PHMSA acknowledges AAR's assessment that, as proposed, the requirement for origin and destination information for the hazardous material contained in each railcar would be too burdensome for railroads to compile and may be of limited value in emergency response scenarios. PHMSA agrees with IAFC's comment that the origin and destination information encodes information about train direction, which is an important factor in the initial stages of a response.

Therefore, in this final rule, PHMSA is adopting a requirement that the railroad include the origin point of the train (*e.g.,* the railyard where the train was assembled), and the next destination (*e.g.,* the next railyard with a scheduled stop in the direction of travel). This requirement maintains alignment with the FAST Act's mandate to include origin and destination information for the train and is responsive to AAR's valid concerns about realities of information available in the logistics system about hazardous materials on a train, yet still addresses IAFC's comment that origin and destination information about a train is helpful by assisting responders with identifying the train's direction of travel after an accident.

PHMSA stresses that this origin/destination data requirement is a minimum requirement to assist authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel to identify the position of railcars during the initial stages of an emergency response. PHMSA expects that railroads and emergency response officials will continue to contact and collaborate with hazardous materials producers through the emergency response telephone number provided on hazardous materials shipping papers (see § 172.604) and through dedicated industry response assistance programs (*e.g.,* CHLOREP [53]).

J. Emergency Response Point of Contact

In the NPRM, PHMSA proposed to require that railroads designate an emergency response point of contact and provide that person's contact information including name, title, phone number and email address. The purpose of this requirement is to ensure that authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel have access to a dedicated railroad contact who could provide emergency response support including but not limited to having knowledge and response and mitigation information, or access to personnel with this expertise, related to the hazardous materials included in the train consist information.

PHMSA received several comments regarding this requirement. The Attorneys General supported the proposed requirement because it would promote the timely sharing of train consist information during an emergency. AAR opposed the inclusion of name, title, phone number, and email address for the designated emergency response point of contact. AAR stated that the details of the name, title, and email address of the emergency response point of contact were subject to constant change as personnel changes, while a railroad's dedicated emergency response phone number, for example, would likely remain constant. Additionally, AAR expressed concern that focus on the name and title of the designated emergency response point of contact would take away from the quality of the information to be provided. AAR suggested that PHMSA align the designated emergency response point of contact requirement with the existing emergency response telephone number requirement that applies to the shipper of a hazardous material found in § 172.604 of the HMR.

PHMSA's Response

PHMSA intended the inclusion of the name, title, phone number, and email address for the railroad's designated emergency response point of contact to increase a local first responder's ability to contact the designated contact person. However, PHMSA acknowledges that AAR's comments about the unintended consequences of the inclusion of name, title, and email address are valid. Therefore, in this final rule PHMSA is removing the requirement that the train consist information include an emergency response point of contact include a name, title, and email address.

The purpose of the emergency response point of contact is to provide a link between the railroad and response personnel for emergency response information-sharing and support in an emergency. Railroads must provide a dedicated phone number and may satisfy this requirement by designating a third-party organization that has immediate access to railroad information (*e.g.,* train consist information) and is capable of providing supportive response information to authorized federal, state, and local first responders, emergency response

[53] *https://www.chlorineinstitute.org/chlorep.*

officials, and law enforcement personnel during an emergency. If a railroad elects to use a third-party, it is ultimately responsible for ensuring that necessary contractual/procedural relationships are structured in a way to fulfill the emergency response point of contact role.

K. Use of the Existing AskRail® Application To Comply With This Rulemaking

AAR described the AskRail® application that is operated by the AAR subsidiary, Railinc, and stated their belief that the AskRail® application satisfies the major components of real-time train consist information requirements mandated in the FAST Act.

PHMSA concurs that AskRail®, as currently implemented, satisfies some of the requirements adopted in this final rule. The AskRail® application is designed to provide train consist information in electronic form to registered federal, state, and local first responders, emergency response officials, and law enforcement personnel. However, PHMSA stresses that it is the responsibility of each railroad transporting hazardous materials to meet the real-time performance standards implemented in §§ 174.26 and 174.28 in this final rule. For example, it is PHMSA's understanding that as currently implemented, AskRail® is a ''near real-time'' system rather than fully real-time because train consist information is not uploaded prior to train movement in all cases, due to spacing between AEI readers. To be clear, sole reliance on AEI readers in all circumstances would not meet the requirements adopted in this final rule to ensure that the centralized electronic train consist information is always updated prior to movement of the train.

PHMSA encourages the use of existing systems and services, like Askrail®, where possible to meet the requirements of this final rule. The use of existing systems and services reduces retraining needs for authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel, and reduces burden on railroads. However, these existing systems and services may need to be modified to meet the standards adopted in this final rule.

L. Cost, Benefit, and Delayed Compliance Period

AAR stated their belief that the adoption of the FAST Act mandates for real-time train consists will not be cost-beneficial. They noted that the PRIA break-even analysis stated the rulemaking will be cost-effective if it reduces the consequences of hazardous material incidents by approximately 30 percent. AAR expressed their belief that this was not possible. AAR also suggested that PHMSA does not have a valid justification for exceeding the requirements that are in the FAST Act mandate, such as the emergency notification requirement, because ultimately it will not be cost-beneficial. Finally, AAR requests at least a two-year delayed compliance period to allow Class I railroads to make necessary updates to their electronic systems without unnecessary disruption of operations.

PHMSA's Response

PHMSA does not agree with AAR's characterization of the benefits and costs of the rulemaking. First, PHMSA notes that this rulemaking responds to both a congressional mandate and an NTSB recommendation; PHMSA's evaluation of the costs and benefits of the rulemaking were necessarily informed by that direction.

Second, AAR provides no information to support their claim that the requirements proposed in the NPRM could not reduce the consequences of hazardous materials incidents by 30 percent, the breakeven point identified in the PRIA.[54] Additionally, due to the changes adopted in this final rule (see Section I.C. for additional details), the overall cost burden of the rulemaking has been decreased, and PHMSA's analysis shows that the breakeven point is now about 12 percent. Serious rail incidents involving the release of hazardous materials are high-consequence, low-probability events whose harms do not lend themselves to easy quantification as they can entail more than mere bodily injury or property damage (*e.g.,* environmental and mental health-related harms).

These harms vary as a function of which of the thousands of hazardous materials regulated by PHMSA, each of which have their own environmental and public safety risk profiles, are involved. Many of those harms, moreover, may not arise instantaneously at the moment of initiation of an incident/accident initiation. Some may emerge well after the incident/accident because of the unique risk profile of the hazardous material or because the decisions made by emergency response personnel. There may be greater magnitude of harms to public safety and the environment (*e.g.,* by exposing more emergency response personnel) experienced as a result of the accident/incident.

PHMSA understands, therefore, that immediate, reliable provision of train consist information to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel for use in emergency situations will support site/hazard assessment and onset of response efforts that can reduce likelihood of hazmat-related death and injury, environmental damage, and property damage—including those consequences that may develop in the moments following accident/incident initiation.

For example, in an accident scenario involving derailed tank cars carrying flammable liquids or gases that are exposed to a fire, responders without access to train consist information may approach too close to the tank cars during response efforts if they are unable to visually identify the contents of the tank cars from markings or placards. If tank cars were to catastrophically fail or begin venting contents through pressure relief devices while responders are within the danger area, death or injury could occur from debris and exposure to the material release.

Similarly, if the hazardous materials on a train required certain resources and emergency response officials lacked resources, training, or personnel to ensure effective response, the train consist information content and notification requirements will help ensure that emergency response personnel can quickly identify those gaps and seek additional resources as appropriate. The incidents in Anding, Mississippi, and Paulsboro, New Jersey, serve as examples of the hours that can be lost during the critical early stages of a response when updated train consist information is not available to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel. Timely access to accurate train consist information can help to reduce such negative outcomes.

Finally, PHMSA does not concur with AAR's request for a two-year delayed compliance period for Class I railroads. The NPRM proposed a one-year delayed compliance period, and AAR has not presented any specific information as to why this is not achievable for Class I railroads. Class I railroads have the

[54] PHMSA further notes that the premise of AAR's argument here—that the benefits from mitigating accident/incident consequence by making train consist information available to emergency response personnel cannot justify implementing costs—is hard to square with its and its members' decisions to make (significant) investments in developing the AskRail® application.

resources, wherewithal, and expertise to be able to upgrade their systems to comply within a year and any further delay in safety improvements is viewed as unnecessary. Therefore, PHMSA is adopting the one-year delayed compliance period for Class I railroads as proposed. As discussed above in Section IV. B., PHMSA is allowing a two-year delayed compliance period for Class II and III railroads.

M. Comments Beyond the Scope of This Rulemaking

PHMSA received comments suggesting changes to the NPRM that it has determined are beyond the scope of this rulemaking. These comments are discussed in this section.

1. Require a Standardized Format for All Paper and Electronic Train Consists

Maine DEP & EMA, the Illinois CC, and a private citizen requested that PHMSA require the use of a standardized format for train consist information for all railroads. These commenters noted that different railroads have different formats and layouts for their train consist information, which can make it potentially difficult for responders to identify the critical hazardous materials information during an emergency depending on the format they are looking at. Similarly, the IAFC requested that PHMSA identify which electronic application or other service the railroads must use to meet the requirements of this final rule.

PHMSA's Response

PHMSA recognizes that different formats and layouts for paper train consist information, and different electronic applications create difficulties for authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel. However, it is beyond the scope of this rulemaking to mandate a single format for train consist information or require the use of a specific electronic application or service.

PHMSA encourages federal, state, and local first responders, emergency response officials, and law enforcement personnel to take advantage of training opportunities, especially those offered by railroads and through organizations like TRANSCAER®,[55] to familiarize themselves with the train consist information format and electronic systems in use by railroads in their response areas. PHMSA provides grant funding for emergency response training through its ALERT program [56] to assist local authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel with this type of training.

2. Emergency Notification for State Emergency Response Commissions (SERCs)

The Illinois CC requested that PHMSA require railroads notify appropriate SERCs when they provide an emergency notification of an accident involving a train carrying hazardous materials, or an incident involving the release or suspected release of a hazardous material.

Inclusion of SERCs is beyond the scope of this rulemaking because SERCs generally do not have a role in the immediate emergency response to an incident. SERCs are responsible for implementing the Emergency Planning and Community Right-to-Know Act (Pub. L. 99–499) and are not designed to receive this kind of emergency notification, disseminate it, or act on it. PHMSA notes that railroads may voluntarily notify SERCs of a rail accident or incident involving hazardous materials in their state.

3. Require a Standardized Procedure for Maintenance of Local Responder Contact Information

The Attorneys General requested that PHMSA develop a required procedure for railroads to gather, maintain, and update the contact information for all local first responders within 10 miles of their routes to support accurate emergency notification.

As discussed above, in this final rule PHMSA is adopting a revised requirement for the emergency notification. Specifically, PHMSA is replacing the requirement to notify all local first responders within 10 miles of the accident or incident with a requirement for railroads to notify the primary PSAP responsible for the area where the accident or incident occurred as well as the track owner—if the track owner is different than the railroad operating the train. It is beyond the scope of this rule to develop a standard procedure regarding the gathering, maintenance, and updating of contact information for primary PSAPs. We agree that railroads must have accurate contact information and geographic coverage information for the primary PSAPs along their routes in order to comply with the requirement adopted in this final rule, and it is PHMSA's understanding that such information is already available to railroads.

However, PHMSA believes it will be more efficient and effective to allow railroads to define their own procedures to comply with this requirement, rather than to create a ''one-size-fits-all'' approach in the HMR. Additionally, PHMSA is adopting a requirement for all railroads to test their emergency notification system or emergency communications plan at least annually, which will serve to demonstrate that each railroad is maintaining and updating this contact information.

4. Contingency Planning and Local Connectivity

Ecology and UTC, and the Attorneys General requested that PHMSA require railroads to create contingency plans for provision of electronic train consist information to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel in areas with no or limited data connectivity.

PHMSA's Response

PHMSA believes that the system of hazard communication for the rail transportation of hazardous materials, including the requirements adopted in this final rule, represents a redundant, resilient system that will be effective in ensuring authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel have access to information on the position and contents of railcars containing hazardous materials, even in areas with no data connectivity. However, it is beyond the scope of this rulemaking to require that railroads develop contingency plans for scenarios where the provision of train consist information to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel required by § 174.28(a) fails due to local connectivity issues.

In this final rule, PHMSA maintains the existing requirement that the train crew must keep an up-to-date local printed paper copy of train consist information in their possession. Next, PHMSA adopts a requirement for railroads to provide an immediate emergency telephonic notification to the primary PSAP responsible for the area where the incident or accident occurred and provide a copy of train consist information directly to the primary PSAP so they can disseminate further, as appropriate. As discussed in Section IV. C. ''Emergency Notification of Rail Accidents and Incidents Involving Hazardous Materials'' above, the primary PSAP is best positioned to

[55] *https://www.transcaer.com/.*

[56] *https://www.phmsa.dot.gov/grants/hazmat/assistance-local-emergency-response-training-alert.*

understand the incident command structure that will be formed, which agencies will respond, and how to overcome any local connectivity issues.

Finally, the existing system of hazard communication on rail cars carrying hazardous materials, including placards (Part 172, subpart F) and markings (§ 172.330, including UN ID number and proper shipping name or common name) on the rail cars used to transport hazardous materials, remains unchanged in this rulemaking. While environmental conditions, such as darkness, smoke, and firefighting foam or the destruction of hazard communication during an accident can make visual identification of the contents of a rail car difficult, these marks and placards continue to play an important role in hazard identification.

5. Commodity Flow Reporting

The Public Utility Commission of Ohio and the Maine DEP & Maine EMA requested that PHMSA require railroads to provide aggregated information on the identity and quantity of hazardous materials transported by rail to state and county emergency planners. The NTSB also noted that Safety Recommendation R–14–14,[57] issued to the U.S. Department of Transportation, remains open, and the requirements adopted in this final rule could potentially address this safety recommendation.

PHMSA's Response

PHMSA appreciates these comments and concurs that aggregated commodity flow information is important for emergency planners. However, this request is beyond the scope of this rulemaking. This rulemaking is intended to improve communication between railroads and federal, state, and local first responders, emergency response officials, and law enforcement personnel related to the hazardous materials involved in a rail incident or accident. The requirement proposed in the comments would require reporting of aggregated hazardous materials transportation data unrelated to a particular incident or accident, which is a substantially different requirement, and would require additional notice and opportunity for comment. PHMSA may consider this topic in a future rule. Emergency planners can request commodity flow information from TRANSCAER® and PHMSA has grant funding available to defray the cost of commodity flow studies.[58]

6. Training and Promotion of Availability of Real-Time Train Consist

AFL–CIO TTD requested that PHMSA require Class I railroads to notify every fire department within their service area about the availability of electronic real-time train consist information and how to access it. Additionally, they encouraged PHMSA to require that Class I railroads provide training to first responders to ensure they are able to accurately read and interpret train consist information in either in-person training sessions or via online modules. The Attorneys General included a similar comment—they requested that PHMSA require railroads to coordinate with the appropriate state agencies to account for state-specific needs for real-time train consist information.

PHMSA's Response

PHMSA is committed to increasing awareness of the availability of real-time electronic train consist information and the availability of training in the use of this information to protect human lives and the environment. However, imposing an additional requirement on the railroads to promote the availability of the information and provide training is beyond the scope of this rulemaking.

PHMSA plans to increase our outreach and engagement with the emergency response community to publicize the availability of real-time train consist information, as well as the resources that PHMSA has made available to receive training. Additionally, the annual test requirement adopted in this final rule is intended to both increase local responder awareness of the availability of real-time electronic train consist information and ensure that railroads can reliably provide the information during emergencies. PHMSA also expects that railroads will use the rule's compliance period to engage with emergency response organizations along their routes to prepare for implementation. Note that Class III railroads that choose to comply with the alternative compliance method adopted in this final rule must inform all emergency response organizations along their route about the contents of their written plan that identifies how the railroad will provide accurate train consist information in emergency situations.

7. Role-Based Repository

The Attorneys General requested that PHMSA develop, or require others to develop, a ''role-based repository'' of real-time train consist information. Summarily, the Attorneys General describe a centralized database containing all real-time train consist information for hazardous materials moving across the nationwide rail system. Access to the repository would be governed by a user's role—*e.g.,* a railroad would be granted access to the database to fulfill their responsibilities to create, update, and transmit train consist information, while an emergency response organization would be granted a different level of access so they could view train consist information during an emergency scenario. The Attorneys General suggest that PHMSA could host this database and provide role-based access to it to ensure that all authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel who need access to real-time train consist information are able to access it.

PHMSA's Response

The creation of a centralized repository for train consist information is beyond the scope of this rulemaking. PHMSA lacks the staff, resources, and legal authority to create, manage, and secure such an extensive and critical database.

8. Additional Train Consist Information

APCO submitted a comment that requested that PHMSA expand the type of information included with the emergency notification of an accident involving hazardous materials or an incident involving the release or suspected release of a hazardous material. Specifically, APCO requested that PHMSA require railroads to report:

- Size and location of the release of hazardous materials;
- Relevant placard number(s);
- Information about individuals impacted by the incident, if applicable; and
- Contact information for railroad personnel on scene in the event the designated emergency response point of contact is not present at the incident.

[57] Safety Recommendation R–14–014 TO THE UNITED STATES DEPARTMENT OF TRANSPORTATION: Require railroads transporting hazardous materials through communities to provide emergency responders and local and state emergency planning committees with current commodity flow data and assist with the development of emergency operations and response plans.

[58] *See https://www.transcaer.com/resources/commodity-flow-studies* and *https://www.phmsa.dot.gov/about-phmsa/working-phmsa/grants/hazmat/hazardous-materials-emergency-preparedness-hmep-grant.*

PHMSA's Response

PHMSA is concerned that requiring railroads to provide information on the size and location of the release of hazardous materials with the emergency notification will slow down the notification to the primary PSAP, because railroads would likely not have access to that information immediately. One of the major purposes of providing train consist information to federal, state, and local first responders, emergency response officials, and law enforcement personnel is to allow them to assess the incident or accident scene safely and effectively. The information requested by APCO would need to be gathered through an accident assessment, likely conducted by local emergency responders themselves, and it would be counter-productive and potentially dangerous to require an accident assessment be conducted before the railroad could provide the required train consist information to the primary PSAP.

PHMSA emphasizes that these regulatory requirements are minimums, and PHMSA expects that a railroad would take steps to share any and all available information on the size and location of the hazardous materials release with the incident command, through the primary PSAP or directly, as soon as possible to help responders assess the threats of hazardous material. The four-digit number displayed on a placard, also known as a UN ID number, is already included in train consist information as a required data point (this information is part of the required §§ 172.201 to 172.203 shipping paper information). Again, PHMSA expects that if a railroad is aware of which specific railcars within the train have been involved in the accident or incident, and therefore the UN ID numbers of the hazardous materials contained in those railcars, they will share that information with the primary PSAP and incident command immediately.

However, PHMSA understands that in the initial chaotic stages of a train accident, it is more important for the railroad to share the entire train consist immediately and allow responders arriving on the scene to use the unique reporting marks on the cars and their position in the accident site to determine the contents of the cars involved in the accident or incident. Similarly, information on the individuals impacted would likely not be available to a railroad immediately. PHMSA believes the railroad should remain focused on sharing the train consist information as quickly as possible in a directed manner, and not delay its provision to gather more information on the scene.

Finally, it may be confusing to provide additional contact information about railroad personnel to local responders. The train consist information includes a railroad designated emergency point of contact, and that contact information should be counted upon to create a reliable, simple single line of communication between the incident command and the railroad during the initial stages of an emergency. Therefore, PHMSA will not require that railroads provide this additional information. PHMSA emphasizes that the regulatory standards adopted in this final rule are minimum requirements, and PHMSA encourages railroads to provide any additional relevant information regarding an accident or incident to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel as soon as possible.

9. Prohibition of Non-Disclosure Agreements

Ecology and UTC requested that PHMSA prohibit the use of non-disclosure agreements as a condition of using an electronic system that provides train consist information to federal, state, and local first responders, emergency response officials, and law enforcement personnel. Ecology and UTC state that if a non-disclosure agreement is required to access electronic train consist information, as it is for AskRail® for example, some response personnel working for state, local, and tribal response organizations that require their employees to comply with public disclosure laws will not be able to use these means of information sharing. AFPM submitted a comment requesting that PHMSA expressly prohibit the dissemination of emergency response information to protect against unauthorized access by international or domestic terrorists seeking to disrupt train operations and endanger civilian lives.

PHMSA's Response

PHMSA will not prohibit railroads from taking measures to prevent the re-transmission of real-time train consist information to unauthorized persons. In the NPRM in § 174.28(c), PHMSA proposed to require that railroads must implement security and confidentiality protections in generating, updating, providing, and forwarding train consist information in electronic form to ensure they provide access only to authorized persons. PHMSA is adopting those requirements in the final rule.[59] PHMSA considers a provision that real-time train consist information may not be disseminated publicly without permission to be a reasonable requirement for railroads to include in an application to comply with PHMSA's information security requirements. PHMSA does not currently believe that this type of requirement unnecessarily restricts legitimate usage of real-time train consist information during rail accidents and incidents. Therefore, in this final rule, PHMSA will not prohibit the inclusion of provisions that require recipients of real-time train consist information to protect the information they receive.

N. Additional Notice and Opportunity to Comment

NENA/NASNA, in supplemental comments filed on March 18, 2024, requested that PHMSA re-open the comment period of the rulemaking to allow additional time for stakeholders in the PSAP community to review the proposed rule and submit comments. NENA/NASNA states that, in their opinion, the NPRM comment period did not allow adequate notice for local PSAP stakeholders to participate in the rulemaking process.

PHMSA's Response

PHMSA does not concur that this rulemaking action did not afford local PSAP or other interested stakeholders in the emergency communication and response communities sufficient opportunity to submit their views on the role of PSAPs in the provision of real-time train consist information to emergency response personnel. PHMSA notes that since publication of the ANPRM in January 2017, the mechanics for channeling real-time train consist information from the railroads to emergency responders has been a principal area of focus of the rulemaking. Indeed, the ANPRM posed a series of questions on how fusion centers would, in-practice, interface with diverse emergency response assets—of which PSAPs are a prominent example. The ANPRM also posed questions regarding current practices among railroads for notifying the emergency responders of accident and incidents similarly naturally touches on the role of PSAPs in those efforts.

NENA and NASNA submitted joint comments on the NPRM emphasizing the centrality of PSAPs in emergency response, and calling on PHMSA to

[59] Please note that the security requirements have moved to paragraph (d) to accommodate a new paragraph for the Class III railroad alternate compliance method.

adjust its proposals because of limited internet access for PSAPs; the revisions to the notification requirements in this final rule are informed by those comments. Further, PHMSA held additional listening sessions with both NENA and NASNA to afford opportunity to clarify further the comments already presented by the organizations.

It is not in the interest of public safety to further delay the implementation of the crucial safety improvements implemented in this final rule by re-opening the comment period. Therefore, we elect not to accommodate this request. However, PHMSA notes to NENA/NASNA that there are delayed compliance timeframes of one year and two years, respectively, depending on railroad class, which will allow time for PSAPs to participate in implementation. Moreover, PHMSA's expectation is that railroads (especially Class I) take the initiative to collaborate with PSAPs in providing assurances train consist information that is provided to PSAPs in accordance with this rulemaking is then proven to be accessible to emergency responders.

V. Section-by-Section Review of Amendments

Parts 171 and 180

A. Sections 171.8 and 180.503

Section 171.8 defines key terms used in the HMR. Prior to the adoption of this final rule, a train consist was defined in this section as a ''written record of the contents and location of each rail car in a train'' [60]—which PHMSA and industry have historically understood to refer to the printed paper copy documentation maintained and updated by train crews pursuant to § 174.26(a). Prior to adoption of this final rule train crews were also obliged by § 174.26(b) to maintain a paper 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 (consistent with NTSB safety recommendation R–07–004) directs PHMSA to require Class I railroads to (in real-time) generate, maintain, update, and share certain real-time train consist information in electronic form with emergency response personnel. That list of information specified in the FAST Act is by-and-large consistent with the suite of safety-critical information in the definitions of ''train consist'' at § 171.8 in use before the adoption of this final rule (which in turn is aligned with the information contained in the notice provided to train crews at § 174.26) and the ''emergency response information'' specified at § 172.602. In the NPRM, PHMSA proposed to replace the term ''train consist'' with the term ''train consist information'' at § 171.8 to more fully capture the intended meaning in light of the FAST Act, and specifically 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.

The comments PHMSA received about the creation of the definition of ''train consist information'' were generally positive and supportive. Therefore, in this final rule, PHMSA adopts the definition of ''train consist information'' in § 171.8, as proposed. Additionally, PHMSA removes the definition of ''train consist'' from § 180.503, as proposed. However, please note that PHMSA adopts changes to certain information included as ''train consist information'' in § 174.26. These changes are discussed in depth below in Section V.B.

Part 174

B. Section 174.26

Prior to the adoption of this final rule, § 174.26 required railroads to provide each train crew with 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 required 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) required 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 proposed 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 match the electronic versions of the train consist information maintained off the train at all times. Those proposed revisions to § 174.26 were 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 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.

In this final rule, PHMSA adopts § 174.26 with the following revisions to the proposed requirements:

1. In paragraph (a), a revision removing the requirement to include the name, title, and email address of the designated emergency response point of contact.

This revision acknowledges that railroads transport hazardous materials 24/7, 365 days a year, and it is not a reasonable requirement to include the name, title, and email address of a specific individual as the designated emergency response point of contact. Name, title, and email address information may change frequently and necessitate administrative updates to information that may introduce

[60] Mirror language appears in the definition of the same term at § 180.503.

inefficiencies or confusion if not properly communicated to all parties, while a dedicated phone number for emergency response will likely remain static. See Section IV.J. for additional discussion on this revision.

2. In paragraph (a)(1), revise the requirement for origin and destination information to ''point of origin and destination of the train.''

This revision is discussed in greater detail in Section IV.I. above. Although PHMSA believes we have discretion to implement as proposed, based on commenter feedback we are adopting a stricter reading and bringing the requirements of the final rule into closer alignment with the FAST Act mandate. As noted in feedback by commenters, this origin/destination data will still provide authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel with important information about the train's direction of travel that can be used in assessing the threat of that hazardous material carried aboard the train.

3. In paragraph (b), make a minor revision to allow train crews to use other means besides electronic or radio communications to make updates to the electronic train consist information.

This revision is intended to provide railroads additional flexibility as to how train consist information is updated in the railroad's centralized electronic database. To be clear, PHMSA is generally not concerned about how the update is made, only that the update is made and is accurate before the train moves.

4. In paragraph (b), make a conforming edit to clarify that Class III railroads complying with the alternative compliance method adopted in this final rule are not required to update electronic train consist information.

As discussed in Section IV.B and V. C, in this final rule PHMSA is adopting an alternative compliance method for Class III railroads that does not require that train consist information be maintained or transmitted electronically. Therefore, we are making a conforming edit to this paragraph to clarify that Class III railroads that choose to use the alternative compliance method adopted in this final rule are not required to update electronic train consist information in real time, because they are not required to maintain electronic train consist information.

Therefore, the requirements of § 174.26 adopted in this final rule are as follows: (1) replace existing references in § 174.26 to the paper ''document'' memorializing train car position in this provision with references to ''train consist information'' as defined in § 171.8; (2) specify the information to be included as part of the ''train consist information;'' (3) specify that a local printed paper 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 the local printed paper copy of train consist information 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 update or notify the railroad to update the electronic form of train consist information (if used—see Class III alternative compliance method requirements) maintained off the train to ensure consistency with the local printed paper copy of the train consist information prior to moving the train.

C. Section 174.28

Prior to the adoption of this final rule, the HMR did 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 instructs 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 practical 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 to supplement the aforementioned requirements by creating an explicit obligation for railroads to ''provide'' accurate, real-time train consist information in electronic form to authorized federal, state, and local 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 IV.F. above, PHMSA understands that the 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) immediately after an accident or incident, ensuring that railroads take action to provide emergency notification and train consist information.

PHMSA consequently proposed a new § 174.28 implementing that FAST Act mandate. For the same reasons described in the above discussion of the proposed § 174.26, PHMSA proposed that this new provision's requirements would apply to all railroads, and not just those that were the subject of the FAST Act mandate. However, in this final rule, PHMSA is adopting an alternative compliance method that does not require train consists to be maintained or transmitted in electronic form for Class III railroads, due to their small size and closer integration with local emergency response resources. Consistent with PHMSA's understanding of congressional intent, paragraph (a) of this section requires railroads to ensure that authorized federal, state, and local 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. As discussed above in Sections III.F.-G., PHMSA understands that the 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.

In the final rule, PHMSA is adopting paragraph (a) as proposed, with a minor revision to clarify that the party responsible for compliance is the railroad operating a train carrying hazardous materials, rather than the track owner—if the track owner is different than the railroad operating the train.

For paragraph (b) within the new § 174.28, PHMSA proposed to 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 within a 10-mile radius of an accident or certain incidents promptly following the accident or incident. In this final rule, PHMSA is revising the proposed requirement. PHMSA is replacing the proposed requirement to provide emergency notification to all state-authorized local first responders within a 10-mile radius of an accident or incident with a requirement to provide telephonic emergency notification and an electronic copy of train consist information to the primary PSAP responsible for the area where the accident or incident occurred and, separately, to the track owner (if the track owner is different than the railroad operating the train). This notification would be largely similar to the special permit conditions discussed in Section III.C. above. The decision to change the recipient of the emergency notification from all local first responders within a 10-mile radius to the primary PSAP responsible for the accident or incident location and the track owner is discussed in greater detail in Section IV.C above.

At its core, this requirement is performance-based—in scrutinizing compliance with this requirement, PHMSA will focus on: (1) before an accident or incident, ensuring that railroads have adopted protocols and resources providing a high degree of confidence that the emergency notifications will succeed in immediately placing train consist information in the hands of a primary PSAP or track owner; and (2) after an accident or incident occurs, that those notifications did in fact reach the intended audience in a timely manner.[61]

Similarly, PHMSA will be less concerned with the particular tools used to provide electronic train consist information to the primary PSAP or track owner after the initial telephone notification of the incident or accident (*e.g.,* instant message to mobile devices, email, fax notification functionalities within the AskRail® system) than whether railroads have ensured that: (1) their personnel have, in advance of rail transportation of hazardous material, a comprehensive, verified list with pertinent contact information for primary PSAPs and other track owners (if applicable) along a route; and (2) appropriate protocols and training for railroad personnel to ensure that such emergency notifications can occur immediately following an accident or incident. To verify that each railroad has a system in place to meet this performance-based approach, PHMSA is adopting a new requirement in paragraph (b)(2) for railroads to conduct annual tests of their emergency notification system. These tests must be sufficient in number and location to ensure reliability across the railroad's network.

PHMSA also is adopting a recordkeeping requirement in association with the test requirement to require railroads to create a record of each test to include: (1) the date of the test; (2) the method used to provide the notification; (3) the name and location of the primary PSAP or track owner to whom the notification was sent; (4) whether or not the test notification was received and acknowledged; and (5) for system tests that are not received and acknowledged, an analysis of the factors contributing to the failure and corrective actions taken by the railroad to prevent such a failure from recurring. Test records must be retained for at least five years.

Finally, PHMSA is replacing the word ''promptly'' with ''immediately'' in this paragraph in order to more clearly communicate our intent that the railroad operating the train provide the emergency notification and train consist information as quickly as possible.

In this final rule, PHMSA is adopting an alternative compliance method for Class III railroads that does not require the transmission of electronic train consists to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel. Class III railroads may either comply with the electronic real-time train consist and emergency notification requirements adopted in paragraphs (a) and (b), or they may comply with the alternative method adopted in § 174.28(c).

The alternative method requires a Class III railroad to develop a written plan that describes how the railroad will notify local emergency response organizations about an incident or accident involving hazardous materials that requires an emergency response. This plan must also describe how the Class III railroad will provide accurate, updated train consist information to local emergency responders, and must assign the responsibility for providing this information to at least one person not on board a locomotive, unless there are no such employees of the Class III railroad capable of performing this function. PHMSA expects that only the smallest of Class III railroads would be unable to assign an office employee with this responsibility; provide this employee with any necessary training; and ensure at least one such employee is available to communicate with emergency responders in the event of an emergency situation during all train movements. Class III railroads must inform all local emergency response agencies along their route about the contents of the plan. In the event of an accident involving a train carrying hazardous materials requiring response from local emergency response agencies, or an incident involving the release or suspected release of a hazardous material from a rail car in the train requiring response from local emergency response agencies, the Class III railroad must immediately notify the primary PSAP responsible for the area where the incident or accident occurred telephonically, and enact their plan to provide accurate, updated train consist information to appropriate emergency response agencies. Class III railroads must retain a copy of this plan and provide it to authorized representatives of the Department upon request. Finally, Class III railroads must conduct a test at least annually to demonstrate the effectiveness of their written plan. The Class III railroad must retain a record of each test event, and, in the event of a failed test, conduct an analysis of contributing factors and revise the plan accordingly to avoid such a failure in a real emergency situation.

PHMSA also proposed a new paragraph (c) implementing the FAST Act mandate that the exchange of real-time electronic train consist information must be performed in a secure and confidential manner so as to protect proprietary and security-sensitive information,[62] 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 personnel[63] and directed toward

[61] 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.

[62] PHMSA acknowledges that the precise statutory language employed in Section 7302(a)(5) of the FAST Act (''security-sensitive information'') 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.

[63] 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.

information-sharing and identification of best practices. Those industry initiatives are backstopped by recent guidance issued by the Transportation Security Administration (TSA) in October 2022 [64] 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 adopted in this final rule are compliant with the security requirements adopted in this final rule. Further, PHMSA notes that nothing in this rulemaking would restrict railroads from collaborating on a platform (*e.g.,* the AskRail® system) for electronic sharing of accurate and real-time train consist information with authorized emergency response personnel, whether pursuant to a memorandum of understanding or other form of agreement. Therefore, PHMSA is adopting the requirements of paragraph (c) as proposed; however, PHMSA is redesignating this paragraph as (d) to accommodate the alternative compliance method adopted for Class III railroads.

Lastly, in the NPRM, PHMSA included proposed language at paragraph (d) that would prohibit 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 elaborated 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 both the obligation for railroads to provide accurate, real-time train consist information in electronic form in paragraph (a) and the accident/incident notification performance standard at paragraph (b). PHMSA is adopting the requirements of paragraph (d) as proposed; however, PHMSA is redesignating this paragraph as (e) to accommodate the alternative compliance method adopted for Class III railroads.

VI. 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''),[65] as amended by Executive Order 14094 (''Modernizing Regulatory Review''),[66] requires that agencies ''should assess all costs and benefits of available regulatory alternatives, including the alternative of not 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 adopted in this final rule. PHMSA has developed a more detailed economic analysis in the final RIA, a copy of which has been placed in the docket.

PHMSA has determined that the final rule impacts six Class I railroads, 14 Class II railroads, and 638 Class III railroads, and estimates the undiscounted total financial impact of the rule over a 10-year analysis period to be about $17.7 million in 2022 dollars, for an average annual cost of $1.8 million. The discounted total cost of the rule over the analysis period is estimated to be $15.8 million in 2022 dollars at a two percent discount rate, for an average annual cost of $1.6 million. Further, PHMSA notes that the benefits of the action are difficult to quantify as it is reliant on the degree to which having real-time access to train consist information improves authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel's ability to respond to rail incidents.

Based on lessons learned from major hazardous material incidents on rail, PHMSA anticipates the action would improve authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel's ability to promptly identify all rail cars containing hazardous materials, as well as the specific hazardous material contained therein, that are involved in an accident or investigation, and to assess the threat from a hazardous materials release in a timely manner. This would likely reduce injuries and fatalities, material loss and response costs, and delays caused by closures to major transportation routes. PHMSA estimated the annual damage cost of hazardous material incidents on rail that could be impacted by this action to be about 15 million in 2022 dollars. Therefore, the final rule would have to reduce damage costs by about 12 percent for the monetized benefits of the final rule to equal costs. The following table summarizes the quantified annual costs and qualified benefits of the major provisions of this rulemaking.

[64] TSA, Sec. Dir. No. 1580/82–2022–01, ''Rail Cybersecurity Mitigation Actions and Testing'' (Oct. 2022), sd–1580–82–2022–01.pdf (*tsa.gov*).

[65] 58 FR 51735 (Oct. 4, 1993).

[66] 88 FR 21879 (April 11, 2023).

Requirement	Average annual cost		Benefit	Breakeven
	Undiscounted	2%		
Amending the definition of train consist information.	$327,847	$291,089	*By aligning the definition of the FAST Act with the language in the existing regulation, this amendment improves regulatory clarity*	*Cost-effective if this requirement reduces the consequences of hazardous material incidents by rail by about 11.8 percent*
Amending notice to train crew	1,169,018	1,036,601	*By improving emergency personnel's ability to promptly identify all the hazardous materials involved in an accident and assess the threat from a hazardous materials release, the provisions will reduce injuries and fatalities, material loss and response costs, and delays caused by closures*	
New emergency response information sharing requirement.	275,018	251,219		
Total	1,771,883	1,578,908		

As illustrated by the Norfolk Southern train derailment at East Palestine, Ohio, 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.[67] 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.[68] 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 rulemaking.

C. Executive Order 13132

PHMSA analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism'')[69] and the presidential memorandum (''Preemption'').[70] 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 tribal 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 tribal requirements on the following covered subjects:

1. Designation, description, and classification of hazardous materials;
2. Packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
3. Preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;
4. Written notification, recording, and reporting of the unintentional release in transportation of hazardous materials; and
5. 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 final 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 final rule is necessary to achieve the objectives of the FAST Act and the hazardous materials transportation law under which the final rule is promulgated. The final rule will not 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 concluded that the consultation and funding requirements of Executive Order 13132 do not apply.

D. Executive Order 13175

PHMSA analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments'')[71] and DOT Order 5301.1A (''Department of Transportation Tribal Consultation Policy and Procedures''). Executive Order 13175 and DOT Order 5301.1A 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

[67] 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 five to eight percent (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.*

[68] Improving Rail in Rural Communities | FRA (*dot.gov*).

[69] 64 FR 43255 (Aug. 10, 1999).

[70] 74 FR 24693 (May 22, 2009).

[71] 65 FR 67249 (Nov. 9, 2000).

the relationship and distribution of power between the Federal Government and Native American tribes.

PHMSA assessed the impact of this action and has determined that it will not significantly or uniquely affect tribal communities or Native American tribal governments. The changes to the rail transportation requirements in the HMR as part of this 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 authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel. Therefore, PHMSA finds this action will neither significantly nor uniquely affect tribal communities, nor impose substantial compliance costs on Native American tribal governments or mandate tribal action. Because this rulemaking will not adversely affect the safe transportation of hazardous materials, it will not cause disproportionately high adverse risks for tribal communities. For these reasons, the funding and consultation requirements of Executive Order 13175 and DOT Order 5301.1A do not apply.

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 web page.[72]

This final 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 action promotes the exchange of information about hazardous material on a train between railroads and emergency response personal and law enforcement for the benefit of response to, or investigation of, accidents or emergencies involving a train carrying hazardous material. The action applies to railroads, some of which are small entities, such as regional and short line railroads. As discussed at length in the final RIA—posted in the rulemaking docket—the actions adopted in this final rule do not have a significant economic impact on a substantial number of small entities.

PHMSA determined that all 638 Class III railroads (100 percent) and 13 Class II railroads (93 percent) can be considered small entities. None of the Class I railroads can be considered small entities.

Railroad	Affected entities	>1,500 employees		1,500 or fewer employees	
		Count	Percent	Count	Percent
Class I	6	6	100	0	0
Class II	14	1	7	13	93
Class III	638	0	0	638	100
Total	658	7		651	

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 2022 dollars by using a deflation index of 1.17, resulting in an average annual revenue of $92.43 million and $5.5 million for Class II and Class III, respectively. Based on estimates, for Class II and III railroads, the per railroad undiscounted average annual cost of the final rule is $17,017 and $521, respectively.

Railroad class	Number of railroads	Amending the definition of train consist information		Amending notice to train crew		New emergency response information sharing requirement		Final rule average annual cost
		Average annual cost	Average annual cost per railroad	Average annual cost	Average annual cost per railroad	Average annual cost	Average annual cost per railroad	
Class III	638	$32,714	$51	$155,659	$244	$134,322	$226	$521
Class II	14	12,895	921	156,581	11,184	68,762	4,912	17,017

[72] DOT, ''Rulemaking Requirements Related to Small Entities,'' *https://www.transportation.gov/regulations/rulemaking-requirements-concerning-small-entities* (last accessed June 17, 2021).

PHMSA estimates the average annual cost of the rule is less than 0.1 percent of the average annual revenue of Class II and Class III railroads. In consideration of the unique needs of Class III railroads, in this final rule, PHMSA adopts an alternative compliance method for Class III railroads that does not require the deployment of an electronic train consist system. The alternative compliance method will provide an increase in the level of safety from the status quo, without unduly burdening these small businesses. Additionally, PHMSA is adopting a two-year delayed compliance period for Class II and III railroads to allow them sufficient time to make any operational, cultural, or technological changes to comply with the requirements of this final rule.

Based on this analysis, PHMSA certifies that this 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 action will 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 final rule in accordance with the 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 final rule, PHMSA is adding six 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 final rule will result in an overall increase in burden attributed to the requirement for additional emergency response information on hazardous materials by rail. The amendments adopted in this final rule will require railroads to make certain train consist information available electronically. Much of this required information is already required of, and generally applied to, shippers who must then provide the information to carriers (*e.g.,* railroads). 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 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 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 adopted in this final rule, PHMSA estimates that 658 railroads (Class I, II, and III) will produce hazardous material train consist information approximately 131,042 times annually. PHMSA estimates the additional burden for this information collection will take five minutes per response, resulting in approximately 10,876 additional burden hours for the railroads (Class I, II, and III) (131,042 responses × five minutes). 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 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 658 railroads (Class I, II, and III) will need to notify local authorities of hazardous materials incidents 491 times annually. PHMSA understands that not all Class II and III railroads transport hazardous materials, yet is estimating these costs using a conservative assumption that all railroads may at some point transport hazardous material. PHMSA estimates the additional burden added in this final rule will take 15 minutes resulting in 122.75 burden hours (491 hazardous materials incidents × 15 minutes per notification). There are no additional burden costs associated with this information collection.

Creation of Records of Emergency Notification System Tests

In this final rule, PHMSA is adopting a requirement for railroads to test their ability to provide train consist information to primary PSAPs and emergency responders. In the first year, PHMSA estimates it will take Class I and II railroads 40 hours each to create a test plan, and it will take Class III railroads one hour to create a test plan. PHMSA estimates it will take Class I, II, and III railroads one hour each succeeding year to review and update the plan as necessary to account for changes in operations or geographic scope. The estimated information collection burden hours in the first year is 1,438 burden hours ((20 Class I and II railroads × 40 hours) + (638 Class III railroads × one hour)). This information collection will decrease in subsequent years to 658 burden hours overall.

Retention of Records of Emergency Notification System Tests

PHMSA estimates that 20 Class I and II railroads will each conduct six tests of their emergency notification system (see § 174.28(b)) annually, and the 638 Class III railroads will conduct one test each. PHMSA estimates that it will take five minutes to retain and file the test record for each test event. The estimated information collection burden hours for this requirement is 62.9 hours ((20 Class I, Class II, railroads × six tests × five minutes) + (638 Class III railroads × one test × five minutes)).

Creation of Records of Class III Railroad Alternative Compliance Method

In this final rule, PHMSA is adopting an alternative compliance method for Class III railroads to account for the challenges in creating and providing electronic train consist information. As part of this requirement, Class III railroads must create a plan that describes how the railroad will provide accurate train consist information to primary PSAPs and local emergency response organizations. PHMSA estimates that this requirement will apply to 388 Class III railroads. PHMSA estimates it will take a Class III railroad four hours to develop this plan the first year, and one hour annually to review and update the plan to account for operational or network changes. The estimated burden hours in the first year is 1,552 hours (388 × 4 hours). The estimated burden will decrease in subsequent years to 388 hours.

Retention of Records of Class III Railroad Alternative Compliance Method

PHMSA estimates it will take a Class III railroad five minutes to retain a record of the plan, as required § 174.28(c). The estimated information collection burden is 32.2 hours (388 Class III railroads × five minutes).

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

Annual Increase in Number of Respondents: 3,408.

Annual Increase in Number of Responses: 133,725.

Annual Increase in Burden Hours: 14,084.

Annual Increase in Burden Costs: $500,000.

PHMSA has submitted the revised information collection and recordkeeping requirements to OMB for approval.

Requests for a copy of this information collection should be directed to Steven Andrews or Nina Vore, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590–0001, 202–366–8553.

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 final RIA, 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 final RIA is available for review in the rulemaking docket.

H. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*),[73] 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 an action for which a categorical exclusion is not applicable and is either unlikely to have significant effects, or when the significance of the action is unknown. In accordance with these requirements, an EA must briefly discuss: the need for the action; the alternatives considered; the environmental impacts of the action and alternatives; and a listing of the agencies and persons consulted (40 CFR 1508.9(b)). If, after reviewing public comments in response to the draft EA (DEA), an agency determines that a 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. Purpose and 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. In light of the stated need, the purpose of the rule is to address the safety and environmental impacts of hazardous materials rail transportation incidents by requiring railroads to provide real-time electronic train consist information to federal, state, and local first responders, emergency response officials, and law enforcement personnel.

2. Alternatives Considered

No Action Alternative

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.

Adopted Action: All Railroads Alternative

Under this alternative, railroads that transport hazardous materials are required to create accurate train consist information about the hazardous material and its location on a train in both a local printed paper 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 are also required to provide immediate telephonic emergency notification and electronic train consist information to the primary PSAP (*e.g.,* 9–1–1 call center) that covers the location where the accident or incident occurred immediately following the accident or incident. Class III railroads (small, short-line railroads) are authorized to meet an alternate compliance method that allows them to continue using paper-based train consists, provided that they create an emergency communication plan; inform local emergency response agencies about the contents of the plan; test the plan at least annually; and enact the plan in emergencies involving hazardous materials. This alternative aims to enhance transportation safety by transitioning away from exclusive reliance on train crews and hard copy documents to 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 Surface Transportation Board, 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 an immediate telephonic emergency notification and electronic train consist information to the primary PSAP that covers the location where the accident or incident occurred immediately following the accident or

[73] Also at 40 CFR parts 1501 to 1508.

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. Affected Environment

The action in the final rule applies to all railroads that transport hazardous materials in commerce. As such, PHMSA estimates the final rule will impact six Class I railroads, 14 Class II railroads, and 638 Class III railroads and the surrounding environments. Of the 140,000 total route-miles of track in the U.S., 104,000 miles are in rural and tribal areas.

Because the final rule would apply to all railroads that carry hazardous materials, it is important to consider the existing environment related to freight transportation of hazardous materials. Between 2010 and 2021, hazardous materials released in railroad accidents resulted in a total of 326 injuries and no fatalities. Over this period there were 202 rail accidents that caused a release of hazardous material, and 5,178 instances of a release of hazardous material not associated with a rail accident (*e.g.,* a failed valve allowing product to leak from a tank car). While accidents involving hazardous materials by rail are rare, they can have serious consequences. Recent examples of incidents involving trains carrying hazardous materials include the Norfolk Southern trail derailment incident in East Palestine, Ohio, in 2023; the derailment of a Conrail train in Paulsboro, New Jersey in 2012; and the Canadian National Railway Company (CN) train collision in Anding, Mississippi, in 2005. In all three cases, emergency personnel who responded to the incident did not gain access to information about the train consist until well after they arrived on scene, which hampered emergency response efforts and increased risks to the emergency responders and the local community.

4. Environmental Impacts of Final Action and Alternatives

No Action Alternative

The PHMSA HMR and the FRA rail safety 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 federal, state, and local first responders, emergency response officials, and law enforcement personnel 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 authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel 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 and therefore, the additional safety, environmental, and public health benefits of the adopted action would not be realized with the no action alternative.

Adopted Action: All Railroads Alternative (Final Rule)

This 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. Railroads would be required to use electronic communication to supplement their hard copy documentation and communications requirements. 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 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 action builds on the current HMR requirements for hazardous material information sharing with the goal of improved rail transportation safety by enhancing authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel's 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. Compared to the no action alternative, implementing the safety measures described in the final rule may also reduce the adverse economic effects in local communities where incidents occur. Current research shows train derailments can reduce property values, which can slow down economic activity in the area.[74] The final rule aims to ensure emergency response personnel have timely, accurate, and actionable information regarding the hazardous material they may encounter at 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.

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.

The final rule does not include any activities, such as ground disturbing activities, building or landscape alterations, construction or installation of any new aboveground components, or the introduction of visual, auditory, or atmospheric elements, that have the potential to adversely affect, either temporarily or permanently, historic resources and/or cultural resources, ecological resources, wetlands and waterways, or farmland.

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

[74] 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 five to eight percent (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*.

electronic train consist information to emergency response personnel, and also providing an immediate telephonic emergency notification and electronic train consist information to the primary PSAP that covers the location where the accident or incident occurred immediately following 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 percent 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 action would still provide safety and environmental benefits by enhancing authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel's ability to assess without delay the potential for a hazardous material release and take appropriate response measures. Similar to the action applicable 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. Similar to the final rule, this alternative would not include any activities, such as ground disturbing activities, building or landscape alterations, construction or installation of any new aboveground components, or the introduction of visual, auditory, or atmospheric elements, that have the potential to adversely affect, either temporarily or permanently, historic resources and/or cultural resources, ecological resources, wetlands and waterways, or farmland.

5. Environmental Justice

Executive Order 12898 (''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations''),[75] 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.

Executive Order 14096—''Revitalizing Our Nation's Commitment to Environmental Justice for All''—was enacted on April 21, 2023. Executive Order 14096 on environmental justice does not rescind Executive Order 12898—''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,'' which has been in effect since February 11, 1994, and is currently implemented through DOT Order 5610.2C. This implementation will continue until further guidance is provided regarding the implementation of the new Executive Order 14096 on environmental justice.

Through the NEPA process, PHMSA has evaluated this final rule under DOT Order 5610.2C and Executive Order 12898, and has determined it will not cause disproportionately high and adverse human health and environmental effects on minority and low-income populations. The final rule will not result in any adverse environmental or health impact on minority populations and low-income populations. Rather, PHMSA anticipates the final action to have a positive impact on the safe transportation of hazardous materials by rail by requiring all trains carrying hazardous materials to have real-time information available to authorized federal, state, and local first responders, emergency response officials, and law enforcement personnel 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 final 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 EA above, the final action will likely reduce environmental risks posed by hazardous material rail incidents.

6. List of Preparers and Reviewers

Carolyn Nelson, P.E., PHMSA
Lydia Wang, PHMSA

7. Agencies and Persons Consulted

PHMSA published this final rule 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 IAFC, 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.

On June 27, 2023, PHMSA published an NPRM[76] on this topic, and solicited comments from the regulated community and other interested parties on the implementation of real-time train consist information. PHMSA extended the comment period for an additional 60 days.[77] PHMSA received 32 sets of comments to the NPRM, which are discussed in detail in Section IV above. In this final rule, PHMSA adopts modified requirements related to the delayed compliance period, information on the origin and destination of the train, the emergency notification required after an accident or incident, and the railroad's designated emergency point of contact based on comments submitted to the NPRM. Please see Section III.G and IV above for more details on the public input PHMSA received.

8. Finding of No Significant Impact

As discussed in the EA 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 finds that the adopted action (All Railroads Alternative) will have no significant impact on the environment. This is based on the analysis presented in the ANPRM, NPRM, the final rule, supporting documents, and this EA.

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.

[75] 59 FR 7629 (Feb. 11, 1994).

[76] Ibid 4.

[77] 88 FR 55430 (Aug. 15, 2023). *https://www.govinfo.gov/content/pkg/FR-2023-08-15/pdf/2023-17472.pdf.*

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**,[78] 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'')[79] 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 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 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 adopt voluntary consensus standards, and therefore the NTTAA does not apply.

L. Cybersecurity and Executive Order 14082

Executive Order 14082 (''Improving the Nation's Cybersecurity'')[80] 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 Executive Order 14082, In October 2022 the TSA 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.[81]

PHMSA has considered the effects of the final rule and has determined that its regulatory amendments would not materially affect the cybersecurity risk profile for rail transportation of hazardous materials. PHMSA acknowledges that the requirements within this final rule 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 it has adopted in this final rule (consistent with a mandate in Section 7302(a)(5) of the FAST Act) explicit language at § 174.28(d) 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 are affected by this final rule's requirements 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 final rule's information-sharing requirements.

M. Severability

The purpose of this final rule is to operate holistically in addressing different issues related to safety and environmental hazards associated with the rail transportation of hazardous materials. However, PHMSA recognizes that certain provisions focus on unique topics. Therefore, PHMSA preliminarily finds that the various provisions of this final 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 final rule's unique provisions, the remaining provisions should stand and continue in effect.

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 amends 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 4 (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 in its place a definition for ''train consist information'' to read as follows:

[78] 65 FR 19477 (Apr. 11, 2000).

[79] 77 FR 26413 (May 4, 2012).

[80] 86 FR 26633 (May 17, 2021).

[81] TSA, Security Directive No. 1580/82–2022–01, ''Rail Cybersecurity Mitigation Actions and Testing'' (Oct. 24, 2022).

§ 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 paper) form that includes: a railroad-designated emergency response point of contact (including contact phone number) 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 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. Additionally, any update to the train consist information must be made and reflected in the electronic train consist information required pursuant to § 174.28 of this subpart prior to continued movement of the train. The train crew may use electronic, radio communications, or other means to notify the railroad to update the electronic train consist information. Class III railroads complying with the alternative compliance requirements described in § 174.28(c) of this subpart are not subject to the requirement to update 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 the train crew and use of electronic devices by the train crew in association with updates to train consist information requirements of this section and § 174.28 of this subchapter must comply with 49 CFR part 220, subpart C.

■ 5. Add § 174.28 to subpart B to read as follows:

§ 174.28 Electronic Train Consist Information.

(a) *Retention and notification requirements.* Each railroad operating a train carrying hazardous materials must at all times maintain in electronic form, off the train, accurate train consist information as required in § 174.26 of this subpart. Each railroad must make such electronic train consist information immediately accessible at all times to its designated emergency response 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, etc.), 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.* (1) *General requirements.* When a train carrying hazardous materials is involved in either an accident requiring response from local emergency response agencies, or in an incident involving the release or suspected release of a hazardous material from a rail car in the train requiring response from local emergency response agencies, the railroad must immediately notify the primary Public Safety Answering Point (PSAP)—*e.g.,* 9–1–1 call center—telephonically that is responsible for the area where the accident or incident occurred and must separately notify the track owner (should the railroad transporting the hazardous materials not be the track owner) and forward train consist information in electronic form to the PSAP and track owner in a form they are capable of readily accessing (*e.g.,* email, fax, software application, etc.).

(2) *Notification system test.* At least annually, each railroad that operates trains carrying hazardous materials must test the notification system used to comply with the requirements of this paragraph. Railroads must:

(i) Develop a testing protocol addressing frequency and locations to ensure reliability across all areas where the railroad operates trains carrying hazardous materials.

(ii) Create a record of each system test that identifies at least the following information:

(A) The date of the test;

(B) The method used to provide the notification;

(C) The name and location of the primary PSAP (*e.g.,* 9–1–1 call center) and/or track owner to whom the notification was sent;

(D) Whether or not the test notification was received and acknowledged; and

(E) For system tests that are not immediately received and acknowledged, an analysis of the contributing factors to the failure and corrective actions taken by the railroad to prevent such a failure from recurring.

(iii) Retain test records for at least five years.

(c) *Class III railroad alternative compliance requirements.* In place of the requirements of paragraphs (a) and (b) of this section, a Class III railroad, as determined by the Surface Transportation Board under § 1201.1–1 of this title, transporting hazardous materials may comply with the alternative procedures in this paragraph to provide accurate train consist information to 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. The Class III railroad must:

(1) Develop a written plan that identifies the procedures for emergency notification and how the railroad will provide accurate train consist information in the event of an accident involving a train carrying hazardous materials requiring response from local emergency response agencies, or an incident involving the release or suspected release of a hazardous material from a rail car in the train requiring response from local emergency response agencies. This may be accomplished via the primary PSAP (*e.g.,* 9–1–1 call center) responsible for the area where the accident or incident occurred. The written plan must assign

at least one person not on board the locomotive with the responsibility to provide accurate train consist information in addition to the train crew onboard the locomotive, unless there are no employees of the Class III railroad capable of fulfilling this function.

(2) Notify emergency response organizations and primary PSAPs along their route about the contents of the written plan and any material changes to the plan made after the initial notification.

(3) Enact the written plan when an accident involving a train carrying hazardous materials requiring response from local emergency response agencies, or an incident involving the release or suspected release of a hazardous material from a rail car in the train requiring response from local emergency response agencies occurs. The Class III railroad must provide immediate emergency notification telephonically to the primary PSAP (*e.g.,* 9–1–1 call center) responsible for the area where the accident or incident occurred, and provide accurate train consist information to appropriate entities based on their written plan.

(4) Retain a copy of this written plan at the Class III railroad's primary place of business and provide a copy to authorized representatives of the Department upon request.

(5) Conduct a test, at least annually, of the procedures for emergency notification and transmission of accurate train consist information. Each Class III railroad must create a record of the test that includes at least the following information:

(i) The date of the test;

(ii) A brief description of the method of emergency notification and transmission of train consist information;

(iii) The name and location of the recipient of the emergency notification and train consist information;

(iv) Whether or not the test was successful in providing emergency notification and train consist information to the intended recipient;

(v) For unsuccessful tests, an analysis of the contributing factors to the failure and corrective actions taken by the railroad to prevent such a failure from recurring.

(6) Retain test records required in paragraph (c)(5) of this section for at least five years.

(d) *Security measures.* Each railroad must implement security and confidentiality protections in generating, updating, providing, and forwarding train consist information in electronic or other 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 generating, updating, providing, and forwarding that information.

(e) *Provision of train consist information.* No railroad may withhold, or cause to be withheld, the train consist information described in paragraphs (a), (b), or (c) 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 (d), 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, the definition ''train consist'' is removed.

Issued in Washington, DC, on June 14, 2024, under authority delegated in 49 CFR 1.97.

Tristan H. Brown,

Deputy Administrator, Pipeline and Hazardous Materials Safety Administration.

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