



**WRITTEN STATEMENT OF
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**BEFORE THE U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS
HEARING ON ENSURING SAFETY AND RELIABILITY: EXAMINING THE STATE OF
RAIL SAFETY IN THE AFTERMATH OF THE DERAILMENT IN EAST PALESTINE,
OHIO**

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Introduction

Good afternoon, Chairman Nehls, Ranking Member Wilson, and members of the Subcommittee. Thank you for inviting me to testify today on the U.S. Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration's (PHMSA) hazardous materials safety program as it relates to railroad transportation safety.

As I testified earlier this year before this Subcommittee—safety is, and remains, the top priority for Secretary Buttigieg, DOT, and PHMSA. Specifically, PHMSA is responsible for overseeing the safe transport of hazardous materials—by all modes. This includes nearly one in 10 goods that are transported commercially in the U.S., everything from nuclear waste to bulk petroleum fuels, to lithium-ion batteries, to spacecraft being transported to spaceports around the world. With respect to railroad transport, to help ensure the safest, most competitive, and environmentally responsible hazmat transportation system in the world, PHMSA largely focuses on establishing and updating standards for tank cars and operational requirements for hazardous materials carriage; collaborating with the Federal Railroad Administration (FRA) in enforcing standards; investing in research and development; and establishing requirements for providing information to first responders. Because the railroad sector and the global economy are increasingly dynamic and rapidly changing, our challenges as an Agency are as difficult as ever.

America's red-hot economy and record amount of domestic energy production have in turn resulted in a record amount of energy being transported around our country. Most of this energy is transported via pipelines, which are regulated by PHMSA. For example, 90 percent of crude oil is transported via pipeline with roughly 10 percent transported by rail. As of this year,

chemical and petroleum products are up 4.3 percent and 11 percent, respectively. Generally, an increase in throughput of energy products in our transportation system increases safety and environmental risks. This Committee has acknowledged the heightened burden on our Agency from our expanding responsibilities in oversight, and has advanced bipartisan legislation (H.R. 6494, the PIPES Act of 2023) that includes additional support and directives to our Agency. As we face more challenges and broader demands on our Agency, clear direction and resources from Congress are important. To that end, we appreciate your efforts to advance bipartisan legislation to strengthen safety and hazardous materials related provisions with respect to the railroad sector.

Since joining Team PHMSA in 2021, I have made it a goal to visit with victims of pipeline and hazardous materials related incidents. From Bellingham, Washington, to Satartia, Mississippi, to Marshall, Michigan, and East Palestine, Ohio—I have heard directly from individuals and families impacted by hazardous materials incidents. In the case of the 2023 Norfolk Southern derailment in East Palestine, Ohio—as in so many incidents throughout the year, across the country—PHMSA personnel were immediately on the ground responding to the incident and supporting the National Transportation Safety Board’s (NTSB) investigation. Once much of the initial response was completed, FRA Administrator Bose and I were on scene to support the tank car inspections and meet with and solicit feedback from railroad workers and first responders. Also, for the first time in the Department’s history, a Secretary of Transportation visited the site of a hazmat train derailment to participate in the hazmat car inspections and meet with investigators and first responders. The brave first responders for this incident were critical in helping us develop major changes to our hazardous materials response regulations for railroads, which we recently announced as part of our new Real-Time Train Consist Rulemaking.

Additionally, we have known for more than a decade that the much stronger design of DOT-117 and DOT-105 tank cars reduces safety risks during incidents, such as the 2023 Norfolk Southern derailment in East Palestine, and we have consistently advocated for their expanded use in transport. As the NTSB noted in its most recent report on the East Palestine event: “From 2013 through 2023, the NTSB investigated 17 accidents in which damaged DOT-111 and CPC-1232 tank cars released hazardous materials. In 15 of these accidents (88%), the hazardous materials release likely would have been prevented or reduced by the use of a more robust tank car specification, such as the DOT-117, with a thicker tank shell, thermal protection, and consistent use of full-height head shields.” These 17 derailments occurred in communities across the U.S. and Canada, including Casselton, North Dakota; Plaster Rock, New Brunswick; Lynchburg, Virginia; Mount Carbon, West Virginia; Heimdal, North Dakota; Lesterville, South Dakota; Fredericksburg, Virginia; Graettinger, Iowa; Money, Mississippi; Hyndman, Pennsylvania; Fort Worth, Texas; Sarnia, Ontario; Draffin, Kentucky; Tempe, Arizona; East Palestine, Ohio; Reed Point, Montana; and Lac-Mégantic, Quebec.

In the wake of the tragic 2013 crude oil train derailment in Lac-Mégantic that killed nearly 50 people and destroyed dozens of buildings, PHMSA and FRA moved with haste to develop an aggressive and comprehensive rail and hazardous materials safety rule—the High Hazard Flammable Train (HHFT) Rule—to, among other things, phase out legacy DOT-111 tank cars in favor of newer, stronger, and much better performing tank cars. Unfortunately, our agencies’ efforts to phase out these tank cars was met with resistance from industry lobbyists, which ultimately resulted in a 2016 congressional mandate that delayed the phase out of the DOT-111

tank cars. This delayed schedule will remain in place unless Congress acts to change it. In February of 2023, Secretary Buttigieg called on Congress to amend the 2016 Fixing America's Surface Transportation (FAST) Act schedule and return to one aligned with what PHMSA and FRA initially established in the 2015 HHFT Rule—and similar to what Canada has mandated and been working toward for many years.

The latest report from the Bureau of Transportation Statistics (BTS), as required by Section 7308 of the FAST Act (P. L. 114-94; December 4, 2015), published on September 15, 2023, indicates that approximately 60 percent of tank cars used to transport flammable liquids meet the new safety standards. A review of the North American Tank Car Fleet Status Report from the Association of American Railroads issued on May 23, 2024, indicates that the industry is on target to meet existing replacement requirements for the remainder of the fleet, but not until 2029.

Our review indicates the most significant impediment for a more rapid replacement/retrofit of the legacy DOT-111 tank cars is the tradeoff of safety for our communities vs. economic considerations. Despite our safety advisory in March 2024, and the NTSB's calls for more than a decade to swiftly replace or retrofit the DOT-111 tank cars, the phase out timeline still largely matches what Congress established in the 2016 FAST Act. I will reiterate what Secretary Buttigieg, Administrator Bose and I have stated previously, PHMSA needs congressional action to facilitate the quicker phase-out of DOT-111 tank cars from flammable liquid service. The FAST Act sets a final date of May 31, 2029, and we know that the tank car industrial base can support a quicker phaseout if Congress reinstates PHMSA's original mandate—which as I noted would be in line with Canada's phaseout schedule. Chairman Nehls, I know the Secretary was pleased to hear your support for a quicker phase-out, and I echo those sentiments.

Actions Taken Since East Palestine Accident

PHMSA worked closely with FRA and the NTSB in the wake of the Norfolk Southern East Palestine derailment to highlight additional avenues to improve safety and decrease risk when transporting hazardous materials by rail. These efforts included encouraging the use of steel manway covers; emphasizing the importance of railroad emergency planning and preparedness; urging tank car owners and shippers to voluntarily utilize the best available model of tank car—the DOT-117—as soon as possible for flammable liquid transportation; and encouraging 9-1-1 call centers to use real-time train consist information.

Additionally, on August 14, 2023, Administrator Bose and I sent a joint letter to Fusion Center Directors, State Emergency Response Commissions, and Tribal Emergency Response Commissions throughout the United States encouraging these entities to share information with local governments and emergency responders so that they have the necessary information to develop emergency preparedness plans.

PHMSA collaborated with FRA and the National Highway Traffic Safety Administration to encourage 9-1-1 call centers to use all available technologies to improve the dissemination of emergency response information during rail incidents involving hazardous materials. As a result, many public safety access points joined the rail industry's AskRail program, which provides real-

time train consist information on demand. However, currently responders are not necessarily even aware that an accident that they are responding to involves a release of hazmat information and so they often will not even attempt to access the Ask Rail app until after they arrive on scene. As a result, we worked with stakeholders from a wide array of entities to implement a better solution—in line with Congress’ intent to get information to those who need it, promptly.

Real-time Train Consist Rulemaking

On June 24, 2024, PHMSA published a final rule¹ adopting real-time electronic train consist information requirements for all railroads that transport hazardous materials in the United States. Train consists are documents that describe the position and contents of railcars within a train. PHMSA’s final rule requires railroads to update this information when changes are made by train crews; maintain it off the train in an electronic format; and immediately provide it to emergency responders when an incident requires a response from public emergency personnel. Railroads are also required to immediately notify the primary public safety access point—such as a 9-1-1 call center—responsible for the area where an accident or incident involving hazmat transportation has occurred, and transmit train consist information to them in electronic form.

These changes allow train crews to protect themselves while providing immediate information to dispatchers for further dissemination to a wider audience, including firefighters, law enforcement, emergency planning, public works personnel, and community officials. Secretary Buttigieg, FRA Administrator Bose, and I all heard first-hand from firefighters who responded from neighboring communities that they were not aware of what type of fire and hazardous materials they might encounter when responding to the derailment in East Palestine. Ultimately, this rule improves the ability of emergency responders to keep themselves, their communities, and all of us safe during rail emergencies involving hazardous materials.

The FAST Act had required PHMSA to impose requirements on Class I railroads to do what they are already voluntarily doing: provide hazmat information to pre-approved first responders via the AskRail phone app. However, PHMSA used this rulemaking opportunity to go beyond the original mandate and provide firefighters with what they said they needed. PHMSA used our existing statutory safety authorities to ensure firefighters, police, and other first responders not only have access to hazmat information when responding to an emergency, and to require all railroads to proactively communicate relevant information to the first responders when there’s a hazmat emergency requiring a response. We also considered the feedback we received from railroads—particularly the hundreds of short line railroads, many of which already have existing personal relationships with their first responder communities. When the rule became final, the International Association of Fire Fighters noted that the rule will “save lives” and General President Edward Kelly underscored that “Fire fighters are all-hazard responders, often first to arrive at incidents like train derailments... Getting fire fighters and rescue workers the information they need in an emergency helps us mitigate further risk, protect the community, and stay safe on the job.”² In its final hearing on the East Palestine accident investigation, the NTSB confirmed that this rulemaking is fully responsive to NTSB Safety Recommendation R-07-04.

¹ [Federal Register: Hazardous Materials: FAST Act Requirements for Real-Time Train Consist Information](https://www.federalregister.gov/documents/2024/06/24/2024-13474/hazardous-materials-fast-act-requirements-for-real-time-train-consist-information)
<https://www.federalregister.gov/documents/2024/06/24/2024-13474/hazardous-materials-fast-act-requirements-for-real-time-train-consist-information>

² <https://www.iaff.org/news/new-dot-rule-gives-fire-fighters-better-protections-from-hazardous-materials/>

High-Hazard Train Rulemaking

While PHMSA and FRA's 2015 HHFT Rule made significant safety advancements, the Norfolk Southern derailment in East Palestine was a stark reminder that there is still much more work to do. The HHFT rule addressed the growing energy transportation risk that we were experiencing at the time. The Norfolk Southern derailment underscored the potential safety, economic, and environmental benefits of expanding the HHFT beyond unit trains of flammable liquids. As such, FRA and PHMSA have sought input on proposing regulatory changes to expand the requirements beyond the existing universe of high-hazard flammable trains to include other hazardous tank cars, such as those that were at issue in the Norfolk Southern derailment.

Grants

In the wake of the East Palestine accident, responders highlighted one of PHMSA's most important programs that provides training and planning resources to communities. In his March 22, 2023, testimony to the Senate Committee on Commerce, Science, and Transportation, Fire Chief David Comstock of the Western Reserve Fire District of Poland, Ohio, lauded the use of PHMSA grants to the response community that ensured front line responders could acquire hazardous materials training at no cost—and he noted the value of increased support for PHMSA's hazmat grant program.³ Created in 1993, the Hazardous Materials Grant Program provides funds to states, territories, Tribes, not-for-profit organizations, and national non-profit fire service organizations to improve preparedness and training for responders called to protect their communities from hazardous materials incidents if or when they occur.

This grant program has been funded at approximately \$28.3M annually, through our Agency's hazardous materials registration fees. Shippers and carriers who transport or offer for transportation certain hazmat in intrastate, interstate, or foreign commerce must register and pay these fees, annually. Between fiscal years 2019-2022, the Hazardous Materials Emergency Preparedness grants funded training for more than 230,000 emergency responders nationwide and funded more than 600 emergency preparedness activities in hazmat emergency response plans, exercises, commodity flow studies, hazard assessments, and various other planning activities. Over the same period, PHMSA's hazmat non-profit grants—Supplemental Public Sector Training, Hazardous Materials Instructor Training, Community Safety Grant, and the Assistance for Local Emergency Response Training—trained more than 47,000 emergency responders and hazmat employees nationwide.

We appreciate Congress' attention to the grants program as evidenced by the Bipartisan Infrastructure Law that increased the authorization for these critical funds from \$28.3 million to \$46.8 million. We have heard from our response stakeholders that this funding is vital to expand training and preparedness across the nation. We are currently taking actions to increase hazmat transportation registration fees—commensurate with Congress' mandate to increase funding for programs that support first responders—that will enable providing these greater grant dollars. We look forward to continued work with Congress to revise the current cap on fees so that we can

³ <https://www.nvfc.org/nvfc-testifies-before-congress-regarding-hazmat-response-needs-of-the-fire-service/>

collect the full amount authorized. The Senate Railway Safety Act of 2023 (H.R. 1674/S. 576) recognized that the current statutory limit of \$3,000 for hazmat registration fees for the largest companies—such as Norfolk Southern—is too low to allow for increased support for the hazmat grant programs. In turn, that bill would direct Class I railroads to pay fees that are more commensurate to the potential risk imposed from the transport of large quantities of hazardous materials. The Senate Commerce Committee-passed version of that bill and the Railroad Safety Enhancement Act of 2024 (H.R. 8996) would increase the cap on registration fees from \$3,000 to \$5,000. However, there is no differentiation in that legislation between large businesses and extremely large businesses, which can pose a greater risk to the public when moving large quantities of hazmat through our communities. Therefore, to meet Congress’ directive to increase funding for our hazardous materials training programs, without congressional action, large businesses are capped at a registration fee of \$3,000 per year—only a few hundred dollars more than their current fee. Smaller businesses in turn would be forced to shoulder additional fees to meet the congressional directive—something neither PHMSA nor Congress wants—unless Congress raises the registration fee cap and/or creates a new class of extremely large businesses with a fee commensurate with market principles that account for the greater risk posed by larger quantities of hazmat transportation, as endorsed by the Secretary in response to the initial rail safety bill.

Emergency Response Guide (ERG) 2024 Rollout

To support first responder training, PHMSA also uses some of the registration fees to develop and distribute the Emergency Response Guidebook (ERG). This book is the primary guide used by first responders to quickly identify hazardous materials involved in an incident, and to help first responders identify measures to protect themselves and the public during the first critical minutes of an incident. The ERG is updated and distributed every four years and is available for free via Apple iOS and Android mobile application.

The Department’s goal is to ensure a copy of this manual is in every emergency response vehicle nationwide. Since its inception, and with this Committee’s support, PHMSA has distributed nearly 18.2 million free copies of the ERG to the emergency response community. In April 2024, PHMSA released 1.9 million copies of the updated 2024 ERG⁴. As part of this effort, PHMSA increased our distribution directly to federally recognized Tribes with more than 1,500 ERGs having been shipped to 80 Tribes and Tribal organizations.

Work with First Responders

Ensuring our nation’s heroic responders are prepared when they encounter hazardous materials is a top priority at PHMSA and DOT. The best way to accomplish that goal effectively is to listen carefully to their voices. We use several venues to hear their concerns, calibrate our program, and meet their needs.

The first venue we use is the hazmat roundtable. The Hazardous Materials Emergency Response Roundtable provides a forum to discuss challenges in hazmat preparedness, prevention, and

⁴ <https://www.phmsa.dot.gov/training/hazmat/erg/emergency-response-guidebook-erg>

response. Reestablished in 2019, the Roundtable discussions aim to identify critical issues and suggested plans of action to strengthen hazmat response throughout the country, thereby protecting lives, property, and the environment. Roundtable members include representatives from federal, state, and local governments; fire and emergency service agencies; and subject matter experts from the hazmat response community. The [Roundtable final reports](#) are available on the PHMSA website and are widely promoted among the response community at national conferences and response forums.

Secondly, after the East Palestine accident, we held a Rail Preparedness and Response Thought Leader Summit in Addison, Texas. This summit brought together more than 80 attendees who represented carriers, responders, academia, trainers, government, communities, emergency managers, and commercial response organizations—as well as PHMSA’s most recent Administrator Skip Elliott—to discuss the current state of rail accident preparedness and response. The event served as a neutral forum for discussing various forms of training, planning, outreach, and best practices available to the emergency preparedness community concerning the transportation of hazardous materials by rail. The summit has already spurred actions by attendees that improve rail and hazmat safety.

Research

PHMSA is making advancements in rail and hazmat safety by conducting research that finds solutions to critical hazmat problems. For instance, we are conducting research to address the problem with placards consumed in fires at rail accidents.

Placards—diamond shaped signs containing identification numbers, symbols, and colors—are mounted on the outside of transport packages, such as railroad tank cars, to provide quick and easy identification of the products inside. These safety markings are an integral part of an internationally harmonized system of communicating the hazards and presence of hazardous materials in transportation. Damaged or lost placards increase the risk of emergency responders not knowing the type and hazards of material(s) they are dealing with. For example, the NTSB noted in its report on the East Palestine accident (Railroad Investigation Report RIR-24-05) that the placards on the tank cars in the Norfolk Southern derailment melted in the heat from the ensuing fire, preventing first responders from quickly identifying what chemicals they were encountering. Therefore, as the NTSB recently recommended, with which PHMSA agrees, there is a need to develop a solution that enhances the durability and security of placards on bulk packaging such as rail tank cars.

In February 2024, PHMSA issued a research solicitation for the survivability of hazardous materials placards. This project calls for the development of a readily available tool, technology, or material to improve the survivability of placards on rail tank cars or motor vehicles involved in a hazardous material incident. PHMSA has selected a vendor and will evaluate the research as it is carried out over the next year.

Another example of PHMSA’s research efforts includes developing a quantitative risk analysis framework, in response to recommendations from the National Academy of Sciences, Transportation Research Board report on safety issues surrounding transportation of liquefied

natural gas in railroad tank cars. While the research focused on an enhanced Quantitative Risk Assessment for LNG transport by rail, the research demonstrated that this analysis can also be used for other chemicals. The effort resulted in a broadly applicable methodology to predict accident scenarios and quantify risk estimates at incremental geographies along representative rail routes.

Challenges and Opportunities

As Secretary Buttigieg has noted, despite the tremendous work by a dedicated team at DOT, there are concrete actions that DOT, Congress, and the railroad industry should take to reduce the risk to the public from hazardous materials transportation by rail. The first is a statutory change to mandate an accelerated phase-out of DOT-111 tank cars from flammable liquid service. The current timeline set by the FAST Act extends until May 31, 2029.

Additionally, a robust and reliable communication network is vital for the efficient management and exchange of information between trains, railroad operators, and emergency responders. Unfortunately, PHMSA has received feedback from railroads and emergency responders about gaps in cellular coverage, creating dead zones that hinder real-time updates and information exchange. The President's Bipartisan Infrastructure Law is deploying nearly \$65 billion to help improve high speed connectivity in underserved areas, so we anticipate connectivity will continue to improve in the coming years.

Improving the communication network also helps responders by improving connectivity of the AskRail application in remote areas. That application, as I noted before, informs first responders about the hazardous materials carried and their specific location on a train, and is another redundant, but important layer of protection for communities.

Finally, we appreciate the leadership from Chairman Nehls and Congressman Moulton in drafting and advancing legislation to improve hazardous materials transportation via railroad. In particular, the draft Railroad Safety Enhancement Act of 2024 (H.R. 8996) would expedite the phase-out of DOT-111 tanks cars in flammable liquid service by December 31, 2027, which is 18 months faster than currently required by law. Further, the legislation expands the definition of high hazard trains—in line with what PHMSA and FRA have sought input on. To that end, Congress may wish to consider taking the proposed definition further to include all classes of hazardous materials, such as oxidizing materials and corrosive liquids—both of which can pose significant hazards to the public, workers, and first responders during a derailment.

Closing

In closing, PHMSA is eager to work with the subcommittee to advance legislation that improves the safety of hazardous materials transportation by rail.

The success of our hazardous materials safety initiatives depends heavily on the dedicated efforts of PHMSA's hazardous materials safety team, who work tirelessly to establish and uphold the highest safety standards. Their commitment is the driving force in executing our Agency's crucial role in overseeing the safe transportation of hazardous materials. However, as members

of this subcommittee have pointed out, too often Agency action is delayed until after a major failure or tragedy occurs. Even then, our Agency often faces hardened industry opposition to enhancement of safety measures. PHMSA stands ready to work closely and proactively with Congress to advance precautionary safety measures now.

Thank you for your efforts to advance bipartisan railroad safety legislation. We look forward to working with you to improve hazardous materials safety and protect our communities.