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ASSOCIATION OF AMERICAN RAILROADS

BEFORE THE

UNITED STATES SENATE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

HEARING ON:

IMPROVING RAIL SAFETY IN RESPONSE TO THE EAST PALESTINE DERAILMENT

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Introduction

On behalf of the members of the Association of American Railroads, thank you for the opportunity to discuss rail safety and the transportation of hazardous materials by rail. AAR's freight railroad members account for the vast majority of railroad mileage, employees, and freight traffic in Canada, Mexico, and the United States.

Let me make absolutely clear at the outset: for freight railroads, pursuing safe operations is not an option, it's an imperative. Railroads know that families deserve to feel safe within their communities. That's why railroads are steadfastly committed to solutions-oriented steps to prevent accidents from occurring. Data from the Federal Railroad Administration confirm that rail safety has improved substantially over the years.

Unfortunately, the recent train accident in East Palestine, Ohio, has led some to question railroads' commitment to safe operations and their ability to operate safely. Railroads know they have to restore confidence and demonstrate that nothing is more important to them than the safety of their employees, their customers, and the communities in which they operate. Every rail accident is one too many, and railroads' ultimate goal is to eliminate accidents altogether.

Actions speak louder than words, of course, which is why railroads will continue to take meaningful actions, as they've been doing for many years, to enhance safety. These actions will continue to be driven by good-faith, cooperative efforts with policymakers, suppliers, customers, and rail employees; sustained private investment in infrastructure, equipment, and safety technologies; the modernization of operating and maintenance practices; effective employee training; and steadfast adherence to pertinent laws and regulations.

As I will explain below, in the wake of the East Palestine accident, railroads have pledged to take additional measures that will further enhance the safety of rail operations.

Rail Safety Data Reflects Safety Gains

Statistics from the Federal Railroad Administration (FRA) confirm that the past decade has been the safest in rail history. A few examples:

- The overall train accident rate was 28 percent lower in 2022 than in 2000.[1]
- The accident rate for trains traveling on railroad mainlines — that is, outside of rail yards — was 44 percent lower in 2022 than in 2000. For Class I freight railroads, the mainline accident rate was down 49 percent from 2000 and set a new record low in 2022.[2]
- The overall train derailment rate fell 31 percent from 2000 to 2022.
- The rate of train accidents caused by track defects fell 55 percent from 2000 to 2022 and set a new record low in 2022.
- The rate of accidents caused by equipment defects (mainly locomotives and freight cars) fell 21 percent from 2000 to 2022.
- As discussed further below, based on preliminary data, the hazardous materials accident rate in 2022 was 78 percent lower than in 2000 and set at an all-time record low.
- From 2000 through 2022, the employee injury rate was down 49 percent.[3] For Class I railroads, the decline was 63 percent, with 2022 setting a new record low. According to data from the Department of Labor, railroads have lower employee injury rates than most other major industries, including trucking, airlines, agriculture, mining, manufacturing, and construction — even lower than grocery stores.

There is more work to do, but FRA's data make clear that railroads employees' strong safety culture, paired with the sustained, disciplined investments in maintenance and technologies that target the primary causes of accidents, have delivered meaningfully improved safety.

Railroads Safely Move Large Amounts of Hazardous Materials Every Day

Most commodities carried by rail pose little or no threat to anyone or anything, but some commodities are classified as hazardous. In a typical year, U.S. railroads transport approximately 2.2 million carloads of hazardous materials. Depending on the year, hazardous materials account

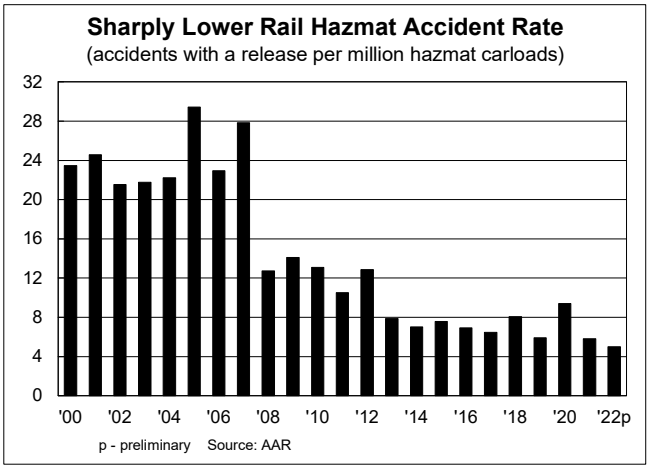
[1] FRA data for 2022 are preliminary. Train accident rates are usually represented in terms of accidents per million train-miles. A million train-miles is roughly equivalent to 300 train-trips across the country.

[2] Class I freight railroads are those with 2021 revenue of at least $944 million. There are currently seven Class I freight railroads. Collectively, they account for approximately 95% of U.S. freight rail revenue.

[3] Rail employee injury rates are usually referred to in terms of 100 full-time employee equivalents.

for 7 percent to 8 percent of rail carloads. Ethanol, crude oil, and propane make up the highest volume of hazardous material carried by rail, but countless other hazmat products that are indispensable to our nation's economy, health, and standard of living are also moved by rail.

Railroads are the safest mode for transporting hazardous materials. Rail hazmat accident rates — accidents that result in hazmat releases as a percentage of total hazmat carloads — fell 78 percent from 2000 to 2022. In 2022, there were just 11 train accidents that involved the release of hazardous materials, with just 19 hazmat carloads releasing their contents.[4] According to the Bureau of Transportation Statistics, the last fatality caused by hazardous materials transported by rail in the United States occurred more than a decade ago. That safety record compares very favorably to hazardous materials moved on highways.[5]



Today, well over 99.9% of rail hazmat shipments reach their destination without a release caused by a train accident. The rail industry will not rest until it can eliminate the accidents that remain. Until that day, the industry will continue to take measures to meaningfully boost safety, prepare communities, and make them whole following any incident.

Railroads want all their shipments to travel safely, but they have consistently taken concrete steps dedicated specifically to making hazmat transportation safer and hazmat accident response and mitigation more effective. Examples include:

[4] An accident involving hazmat can lead to the release of product from more than one railcar.

[5] https://www.bts.gov/content/hazardous-materials-fatalities-injuries-accidents-and-property-damage-data

- Railroads, several federal agencies, and outside experts collaborated several years ago to produce the web-based "AskRail" app. AskRail allows emergency responders to input the identification number of a particular rail car and immediately determine the commodity contained in that car, its hazard class, emergency response information associated with the commodity, and other information. Emergency responders in East Palestine used AskRail to quickly obtain information on the railcars involved in that accident.
- When an accident involving hazmat occurs, railroads follow strict protocols. They work closely with the Environmental Protection Agency (EPA), the National Transportation Safety Board (NTSB), relevant state and local authorities, and outside experts to contain the situation as quickly as possible; protect the health and safety of nearby residents and the environment; and remediate impacts. A variety of laws and their accompanying regulations give the EPA and other agencies a comprehensive framework to ensure that railroad hazmat spills are properly addressed.
- Railroads provide thorough information to emergency response agencies on hazardous materials moving through their cities and towns.[6] They also equip train dispatchers and crews with information about hazmat on individual trains and contact lists for local emergency responders along a train's route.
- Railroads and several federal agencies jointly developed the Rail Corridor Risk Management System (RCRMS), a sophisticated statistical routing model that incorporates 27 risk factors (including hazmat volume, trip length, and population density along the route) to aid railroads in identifying the safest and most secure rail routes for transporting high risk hazardous materials.
- Railroads help communities develop and evaluate emergency response plans. They also provide training for more than 20,000 emergency responders each year through their own efforts and through the Transportation Community Awareness and Emergency Response Program (TRANSCAER).
- Railroads provide hazmat awareness training to all employees who are involved in hazmat transportation. Rail employees responsible for emergency hazmat response efforts receive far more in-depth training. Railroads also have hazmat response contractors and environmental consultants on call 24/7.
- Around half of all hazardous materials, and nearly all TIH materials[7], are transported in tank cars. All but a tiny fraction of the approximately 437,000 tank cars in the North American rail car fleet are owned by rail customers and leasing companies, not by railroads. Tank cars built today are vastly improved over earlier generations, with higher grade steel, better thermal protection, improved valves and fittings, often thicker tanks, and other improvements.

[6] Providing open, unfettered access to the precise location and contents of every train could make those carrying hazardous materials a target for terrorist attacks, which is why railroads limit this information sharing to bona-fide emergency response agencies.

[7] "Toxic inhalation hazard" (TIH) materials — gases or liquids, such as chlorine and anhydrous ammonia, that are especially hazardous if released into the atmosphere — are a subset of hazardous materials. U.S. railroads carry around 65,000 TIH carloads in a typical year.

- Railroads work closely with chemical manufacturers in the Chemical Transportation Emergency Center (Chemtrec), a 24/7 resource for emergency responders that provides access to chemical product, medical and toxicology experts and assists in the mitigation of hazmat incidents.
- Railroads provide services (e.g., lodging, food) to those displaced by rail hazmat accidents and establish assistance centers and claims teams to assess and meet the needs of displaced community members. Railroads also reimburse local, state, and federal authorities for the costs associated with their response and cleanup efforts.

Renewed Efforts to Prevent Rail Accidents

One of the keyways railroads have reduced accidents is through significant and consistent investments back into their networks. From 1980 to 2022, freight railroads spent more than $780 billion — of their own funds, not government funds — on capital expenditures and maintenance expenses related to locomotives, freight cars, tracks, bridges, tunnels and other infrastructure and equipment. That's more than 40 cents out of every revenue dollar. The vast majority of these investments have improved rail safety directly or indirectly. In fact, for many of these investments, improving safety is a primary reason the investments were made. Massive rail spending back into their networks will continue.

Railroads have also made huge investments in modern safety-enhancing technology. These include sophisticated detectors along tracks that identify defects on passing rail cars; specialized vehicles that detect defects in tracks and in the ground underneath tracks; and drones that can inspect hard-to-reach areas. Railroads have also fully implemented positive train control (PTC) systems that automatically stop or slow trains before certain accidents occur.

On March 8, U.S. Class I railroads collectively announced a new initiative to expand the use of technology to improve safety. This initiative has five key components.

First, railroads have long recognized the risk posed by overheated wheel bearings. That's why, beginning many years ago, railroads voluntarily installed thousands of "hot bearing detectors" (HBDs) across their networks. HBDs use infrared temperature sensors to monitor the

temperature of bearing housing as railcars pass by. Railroads have also voluntarily installed acoustic bearing detectors along many of their tracks. These detectors can identify potential wheel problems based on the noise created by bearings that may be starting to fail.

For more than 30 years, Class I railroads have voluntarily spaced HBDs no more than 40 miles apart on key routes. In recent years, average HBD spacing has fallen well below 40 miles. On March 8, Class I railroads announced plans to install approximately 1,000 new HBDs so that the HBD spacing on key routes will be reduced to no more than 15 miles on routes that do not have acoustic bearing or similar defect-detection technology.

Moreover, Class I railroads have agreed to a new industry standard that calls for stopping trains and inspecting bearings whenever the temperature reading from an HBD exceeds 170 degrees above ambient temperature. This new "critical temperature threshold" is substantially lower than the previous industry norm.

HBDs have been in use for many years, but only relatively recently have software and data processing capabilities evolved enough to allow "trend analysis" of readings from multiple HBDs over time. Class I railroads have agreed to engage in a collaborative, fast-tracked effort to identify best practices associated with trend analysis to make it more effective at proactively detecting potential bearing problems.

Second, all seven Class I railroads have agreed to join the FRA's voluntary "Confidential Close Call Reporting System (C3RS). Class I railroads have long had mechanisms in place for their employees to provide confidential feedback on safety issues, but railroads will use the C3RS program to supplement their existing programs. Railroads will work cooperatively with the FRA and labor representative to improve the effectiveness of C3RS.

Third, in 2023, railroads will train roughly 20,000 first responders in local communities across the country on accident mitigation. In addition, the industry will facilitate the training of 2,000 first responders at the Security and Emergency Response Training Center (SERTC) facility in Colorado. SERTC's world-renowned program offers an immersive experience with full-scale training scenarios that prepare first responders for real-world surface transportation emergencies. SERTC is a member of the National Domestic Preparedness Consortium (NDPC), which fully funds local, state, tribal and territorial first responders to attend any of SERTC's DHS/FEMA-certified courses.

Fourth, the rail industry is intensifying its efforts to get the AskRail app into the hands of first responders. Railroads will interface with emergency communication centers to promote broader access to the app, rather than relying solely on individual downloads. Railroads are also targeting all 50 state fire associations. The industry's goal is to double the number of first responders who have access to the tool by the end of 2023.

Fifth, following a recent safety advisory from the NTSB, the AAR's Tank Car Committee is accelerating the work of a dedicated task force that has been investigating the use of heat-resistant gaskets for tanks transporting flammable liquid. The task force, comprised of representative from railroads, equipment owners, and tank car manufacturers, will expand its scope to consider all fire performance improvements to service equipment.

Since the March 8th announcement, the industry, lead by Norfolk Southern, determined that a specific model and series of railcars had loose wheels, which could cause a derailment and that these came from a series of recently acquired cars from a specific manufacturer. Upon inspection of other cars from this series, additional cases of unusual wheel movement were found and the industry took immediate action – not waiting on the DOT or other regulators – and

ordered the remove these cars from service until their wheelsets could be replaced. This is a prime example of the industry stepping up and taking action whenever a critical safety issue is discovered.

Looking Ahead

Rail is the safest way to move hazardous materials, but railroads fully appreciate that public trust in railroads' ability to operate safely must be restored through action. Until they achieve their goal of zero accidents, railroads will maintain a fierce commitment to getting there. Railroads wholeheartedly agree that policymakers have a key role to play in this effort, and railroads will continue to work in good faith with policymakers at all levels of government to identify ways to genuinely improve rail safety performance.

That said, it is unfortunate that, in the aftermath of the accident in East Palestine, some policymakers, pundits, and others have asserted that railroads broadly oppose increased safety regulations. This is categorically false. Railroads have consistently advocated, and continue to advocate, for data-driven solutions that would effectively increase the safety of the rail network.

Some rail efforts have been successful, such the push for the Department of Transportation to enhance tank car standards for flammable liquids. Other rail efforts, like expanding the use of automated track inspection technologies that have proven to be far more effective than traditional manual inspections, have been hamstrung by the FRA and are impeding the industry's efforts to improve safety.

Railroads are also disappointed that some are using the East Palestine accident to push for policy changes that have little or nothing to do with rail safety and, if enacted previously, would not have prevented the accident or made railroads safer. Railroads also respectfully urge policymakers to remember that laws and regulations, however well intended, that place excessive

and unnecessary operational burdens on railroads would distort competition in the freight transportation marketplace and divert freight from railroads to less safe alternatives. If this happened, overall transportation safety would be reduced, not enhanced.

Conclusion

Our nation's freight railroads share this committee's and the public's urgency in augmenting the safety of all rail transportation. Railroads are committed to continuing our work with local, state, and federal officials; their employees; their customers; their supplies; and other stakeholders to identify additional safety enhancing steps that will make this happen.