Freight Rail Safety

KEY TAKEAWAY

Safeguarding the well-being of their employees and the communities along their train routes is a top priority for freight rail companies. Thanks in part to ongoing private investments into technology, infrastructure and equipment, freight rail is the safest way to move goods over land and is working to get safer every day.

Railroads work daily with their employees, suppliers and customers, and federal, state and local officials to safeguard the rail network and the people who operate it and interact with it. Railroads' holistic approach to rail safety focuses on:

- Maintaining and modernizing infrastructure and equipment.
- Rigorously training employees and improving operations.
- Developing and deploying technology.
- Safeguarding communities and supporting first responders.
- Monitoring and protecting physical and digital networks.

Freight rail’s billions of dollars in annual private investments underscore this holistic approach. In fact, there is a direct correlation between rail’s private investments and increased safety. Since The Staggers Act of 1980, which allowed railroads to start pouring billions into their networks each year, the safety record has drastically improved. The train accident rate is down 28% since 2000, and the last decade was the safest ever, with the 2022 hazmat accident rate among the lowest ever.

Infrastructure

A well-run railroad is a safe railroad. Railroads are dedicated to meeting the high safety standards applied to every aspect of operations. Across the network, railroads employ thousands of well-trained inspectors — qualified per Federal Railroad Administration (FRA) regulations — who monitor and assess the health and safety of rail equipment, often exceeding the federal inspection regulations.

Since 2000, America’s Class I railroads have spent $439 billion on network maintenance and capital expenditures, while the train accident rate has decreased 28% since 2000. These investments have also led to the American Society of Civil Engineers considering rail to be the best infrastructure in America.
**Employees**

Freight railroads are the safest way to move goods over land, a feat made possible by rail employees who dedicate themselves to safe rail operations every day. Railroads are committed to providing the knowledge and tools railroaders need to do their jobs safely and embrace rail’s safety culture.

For example, state-of-the-art training centers with simulators and virtual reality enable employees to practice real-life skills in a controlled environment. Daily employee meetings emphasize teamwork and continual learning on the job. New technologies, like drone-based bridge inspections, help keep employees out of harm’s way while giving them the tools to excel at their jobs. Per Class I railroad employee, the injury rate has dropped 59% since 2000. In fact, the rail industry has lower employee injury rates than most other sectors, even lower than grocery stores.

**Technology**

Technology extends human inspection capabilities and is imperative to freight rail’s forward progress. That’s why railroads use technology every moment of the day to keep employees, communities, infrastructure and equipment safe. From acoustic technologies that can hear the health of a track to machine visioning that can see defects on passing rail cars, these advancements help guide maintenance planning, which has led to greater safety, accuracy and productivity than ever before.

Many of these rail-related technological advancements are developed at MxV Rail in Pueblo, Colorado, a subsidiary of the AAR that is widely considered the best rail research facility in the world. In addition to conducting the various inspections required by FRA, railroads have, for decades, voluntarily invested in testing, implementing and advocating for advanced inspection technology to supplement manual inspections. Moving forward, more automated technologies allow further progress in challenging areas like reducing human error and improving grade crossing safety.

**Communities**

Freight railroads take their responsibility to protect the rail network and the communities that trains move through seriously. From providing first responder hazmat training to communicating with government partners daily about the health of the digital network, railroads prioritize community preparedness and transparent communication. Railroads also work with state, local and federal officials, safety organizations, technology companies and the public to keep pedestrians and drivers safe near railroad tracks.

- Freight railroads are dedicated to safely moving hazmat, and they have lowered the hazmat accident rate by 73% since 2000. When an incident does occur, railroads work with first responders to help families and individuals within an affected community.
• Railroads train tens of thousands of first responders each year and helped develop the AskRail app, which provides first responders across the rail network immediate access to accurate, timely data about what type of hazmat a rail car is carrying and how to respond to an incident safely.

• From launching the See Tracks, Think Train! campaign to participating in the annual Rail Safety Week, railroads support Operation Lifesaver, Inc. (OLI), a non-profit public safety education and awareness organization. Railroads also spend hundreds of millions of dollars each year to maintain and improve grade crossings as well as to implement new technologies.

**Preparedness & Response**

The freight rail network is nearly 140,000 miles long and traverses throughout 49 states and the District of Columbia. Not seen is the complex digital infrastructure that helps power that physical network. Freight and passenger railroads work daily with government agencies and security, law enforcement and intelligence professionals to monitor and protect infrastructure and equipment as well as cyber systems. Railroads also collaboratively prepare for and respond to weather threats to minimize network impact, swiftly restore service for customers and help communities rebuild.