

# Hazmat Transportation by Rail: An Unfair Liability

ASSOCIATION OF AMERICAN RAILROADS

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## Summary

Railroads are required by law to transport hazardous materials — including “toxic inhalation hazard” (TIH) materials — even though doing so subjects railroads to enormous risk. Trucks, barges, and airlines are not required to carry these materials. Since railroads cannot refuse to transport TIH materials, **they should be protected against the potentially ruinous liability** associated with transporting them. The development and use of safer substitutes for TIH materials would reduce risks for everyone and should be pursued.

## Rail Hazmat Overview

Each year, around **1.7 million carloads of hazardous materials** (“hazmat”) are transported by rail in the United States. “Toxic inhalation hazard” materials (TIH), which are gases or liquids (such as chlorine and anhydrous ammonia) that are especially hazardous if released into the atmosphere, are a subset of hazardous materials. Each year, railroads transport around **75,000 TIH carloads**. Hazardous materials account for approximately 5.5 percent of U.S. rail carloads; TIH materials account for around 0.25 percent. Most rail hazmat shipments, including virtually all TIH shipments, are transported in tank cars.

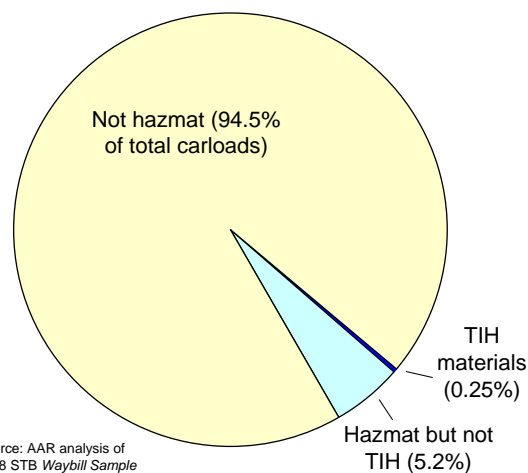
The rail hazmat safety record is excellent. In 2008 (the most recent available data), **99.998 percent of rail hazmat shipments reached their destination without a release caused by a train accident**. Rail hazmat accident rates are **down 91 percent** since 1980.

## The Current Situation Regarding the Rail Transport of TIH Materials is Untenable

Under existing law, railroads have a “common carrier obligation” to carry TIH materials. This means that, under most circumstances, a **railroad must transport TIH materials if a shipper asks it to, whether the railroad wants to or not**. By contrast, trucks, barges, and airlines can refuse to transport these materials.

The problem is that every time a railroad transports TIH materials, it faces **potentially ruinous liability risks if an inadvertent TIH release were to occur**. In fact, history demon-

*Hazardous materials, including TIH materials, are a small percentage of rail traffic but are responsible for a major share of rail insurance costs and liability risks.*



states that railroads can be subjected to multi-billion dollar liability claims for personal injury and property damage even when they do nothing wrong and are not the cause of a TIH release.

Moreover, the federal government does not allow railroads to set rates at a level high enough to recover from TIH shippers the billions of dollars of added costs associated with TIH shipments. In addition to liability costs, these huge added costs include the costs of **TIH-related insurance**, the multi-billion dollars costs of installing “**positive train control**” technology on tracks over which TIH materials are transported (see below), and the costs of complying with the **extensive government-mandated safety and security operating procedures** each railroad must have in place due to the higher risks associated with TIH commodities.

Insurance to help guard against TIH-related liability risks is difficult and extremely costly for railroads to obtain. It is impossible for railroads to fully insure against the potential “bet the company” risks associated with TIH shipments.

By forcing railroads to carry an excessive liability burden, **the existing system insulates manufacturers and users of TIH materials from many of the risks they create.** The existing system also forces railroads to assume risks they would not assume on their own without sufficient protection against those risks.

It’s time for a more just and realistic allocation of liability. Allocating liability more reasonably to TIH users and manufacturers would induce them to reduce unnecessary rail transport of these materials; encourage them to locate facilities for manufacturing TIH materials at or close to end-user facilities; and promote the development of less dangerous substitutes. All of these steps would promote public safety by reducing exposure to dangerous TIH materials.

### **Railroads Are Constantly Working to Improve Hazmat Safety**

Safety is the top priority for railroads no matter what they are transporting. Steps railroads are taking to help keep TIH and other hazmat transport safe include:

- **Transporting TIH materials on routes that pose the least overall safety and security risk.** Railroads conduct ongoing, comprehensive risk analyses of their primary TIH routes and any practical alternative routes over which they have authority to operate. These analyses must consider 27 different factors, including hazmat volume, trip length, population density of nearby communities, and emergency response capability along the route. The safest routes based on these analyses are the routes railroads must use.
- Developing and implementing technological innovations such as improved track and freight car **defect detection systems** and **stronger, more durable steel for tank cars.**
- **Training emergency responders** to help ensure that, if an accident occurs, emergency personnel will know what to do to minimize damage to people and property.
- **Working with local authorities** to help ensure effective safety planning, including by providing local authorities upon request with lists of hazardous materials transported through their communities.



- Meeting **TSA security requirements** such as those calling for periodic physical inspections of rail facilities, strict chain of custody protocols for TIH shipments, and reporting to TSA the location of tank cars carrying TIH materials.

The Rail Safety Improvement Act of 2008 mandates that by December 31, 2015, “**positive train control**” (PTC) technology must be installed on rail main lines used to transport TIH materials or passengers. According to FRA estimates, over the next 20 years railroads will have to spend up to \$13.2 billion to install and maintain PTC, with **PTC-related costs exceeding PTC-related benefits by 20 to 1**. (Railroads believe PTC’s costs will be even higher than the FRA estimates and the cost-benefit imbalance will likely be even worse.)

Railroads will have to install PTC on approximately 73,000 miles and around 17,000 locomotives. Roughly 75 percent of these miles are subject to the PTC mandate because they are used to transport TIH materials. In other words, if not for TIH materials, railroads’ PTC-related costs would be many billions of dollars lower.

Some have proposed that state or local authorities should be able to ban TIH movements through their jurisdictions. These proposals are misguided. If local TIH bans were enacted, risk would simply be shifted from one group of people to another. And by potentially adding several days and hundreds of miles to shipments, local TIH bans could actually **increase exposure** and **reduce overall safety and security**.

### **Develop Safer Substitutes for TIH Materials**

The National Academy of Sciences, the Government Accountability Office, and others who have studied the issue have determined that TIH materials should be replaced where possible with less hazardous substitutes and new technologies.

**Safer substitutes already exist and are in use** for many TIH materials today. For example, chlorine is one of the most dangerous chemicals transported by railroads. Many cities around the country have switched from chlorine to safer chemicals or new technologies for water and wastewater treatment. Where product substitution is not yet available, research should seek solutions as quickly as possible.

### **What Policymakers Can Do**

As long as railroads are forced to transport TIH materials, policymakers should address the enormous risks railroads are forced to assume. Policymakers can do this several ways:

- Encourage the development and use of safer substitutes for TIH materials and discourage unnecessary shipments of TIH materials, especially over long distances.
- Allow railroads to ask TIH shippers to **indemnify** them for liability.
- **Create a fund**, to which producers and end-users of TIH materials would contribute, **to pay for damages above a certain amount**, similar to “Price-Anderson” protections in the nuclear energy industry.
- Create a statutory **liability cap** for railroads.

**Railroads are not asking to be free from all liability related to TIH transport.** Rather, they believe that those responsible for making and using these dangerous chemicals should share in the added liability and costs associated with transporting them.