

The Railway Safety Act of 2023

Claim/Fact

Introduction: On February 3rd in East Palestine, Ohio, at about eleven o'clock, 38 rail cars in a 149-car train derailed. Eleven of the cars contained hazardous materials, including nearly 800,000 pounds of vinyl chloride, a carcinogenic, flammable gas. These vinyl chloride cars were deliberately breached, and vented into the environment as a result of a controlled explosion some hours after the derailment. Breaches in other derailed tank cars released additional hazardous chemicals, around another 700,000 pounds. These chemicals entered the air and water of the surrounding residential areas, the closest of which is only 1,000 feet from the site of the accident. The company responsible for the train and the track is Norfolk Southern.

A mandatory evacuation was ordered in case of a major explosion. 40,000 fish have died from what is thought to be chemical exposure from the derailment. On Saturday, March 4, another Norfolk Southern train derailed in Ohio, although there was no loss of life or hazardous release. On Tuesday, March 7, another Norfolk Southern train collided with a dump truck in Cleveland, killing a worker.

The Railway Safety Act of 2023: Introduced by Senators Vance, Brown, Hawley, Casey, Fetterman and Rubio, the bill is predicated on the idea that an efficient safety margin for an individual firm or industry may not be efficient for the nation as a whole. Government action is at times required to rectify these market failures. It also addresses specific issues known to be related to the East Palestine Disaster. In brief, the bill:

- applies elements of the current regime for High Hazard Flammable Trains, such as restrictions on train length, routing and notification requirements, to other hazardous material trains.
- creates minimum time requirements for human inspections as well as an auditing regime for inspections to be conducted by the Department of Transportation, while protecting the right of the Department to run pilot programs on automated track and rolling stock inspection systems.
- requires wayside bearing defect detectors (bearing failure was the cause of the derailment) every ten miles.
- requires a two-man crew on trains operated by Class I freight railroads, while exempting some class II and class III activities.
- increases in the civil penalties for violations of rail safety regulations.
- funds research and training for first responders, as well as research into rail safety.

CLAIM/FACT:

This bill gives too much power to the Secretary:

The provision in the bill broadly mirrors the approach of the FAST Act (the current highway bill) provision that produced the original high-hazard flammable train rule: a required rulemaking that allows for the creation of a tailored regulatory burden on quantities and types of hazardous material. The FAST Act's Hazardous Materials Transportation Improvement Act was also passed with overwhelming bipartisan majorities in the wake of another catastrophic derailment.

Notification of first responders, and questions about route analysis, planning, and labelling directly obtain on the events of East Palestine, where many first responders were not aware of the specific properties of the chemical they were dealing with and some placarding was either damaged or made illegible by fire. As the National Transportation Safety Board stated in 2014, “We believe the definition of HHFT should include a broad range of hazardous materials.” Right now this designation applies only to flammable liquids, not gases like vinyl chloride. The Railway Safety Act of 2023 allows for the implementation of that recommendation. The debate about the propriety of the controlled burn adds further importance to the creation of a new notification requirement; if indeed as some suggest this event did not need to occur, or the controlled explosion was ill-advised, then notification and advanced planning are even more critical for first responders across all types of hazardous material classes.

If proferrors of this argument believe that the present administration is too incompetent to issue the regulations in question, then they have the recourse of releasing a similarly detailed regulatory regime written into statute. Proponents of this legislation are ready to work with those who would prefer a more prescriptive bill, but also believe that providing some discretion to the executive branch for implementation of complex regulation is a reasonable, and time-tested approach.

Chair Homendy of the National Transportation Safety Board has criticized these safety reforms.

Some have argued that Chair Homendy of the NTSB has criticized policy initiatives in this space or referred to them as “political.” This has no relation to the Railway Safety Act, as these remarks occurred prior to its introduction. Her remarks were made on February 23rd. Senator Vance and Senator Brown introduced their legislation on March 1st. The NTSB has made recommendations with substantial overlap with the Railway Safety Act’s provisions.

The bill will allow the administration to ban the transshipment of natural gas by rail.

This is a red herring. Section 5103(b) of the federal hazmat law authorizes the Secretary of Transportation to “prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce.” Section 5103(a) of the federal hazmat law provides, that “The Secretary shall designate material (including an explosive, radioactive material, infectious substance, flammable or combustible liquid, solid, or gas, toxic, oxidizing, or corrosive material, and compressed gas) or a group or class of material as hazardous.” These provisions provide black-letter authority to regulate the transshipment of liquid natural gas or any flammable liquid, including other petroleum products. This language has been the law of the land since 1994. Currently, shipments of LNG by rail are suspended by the Biden Administration pending a final rule on the practice, after President Trump permitted the transport of liquified natural gas in a 2019 rulemaking.

It’s premature to act on the subject.

According to the Federal Railroad Administration, about 1,000 trains derail a year. On the typical 18month timeline for a final NTSB report, 1,500 trains will have derailed, many carrying hazardous chemicals. If, as some suggest, the industry has a 99.9 percent success rate, probability suggests that there could be at least one, possibly two, significant derailments and releases during that period. There has been another derailment in the state of Ohio already, mercifully without the release of hazardous material. There was also another fatal accident on March 7. Many of these provisions reflect recommendations offered by the National Transportation Safety Board in response to previous

derailments. At this point, given the roll call of previous disasters, it's clear that there are insufficient regulations on the transportation of flammable gases and other materials.

Additionally, Norfolk Southern has accepted the need for action by offering an updated rail safety plan of its own, which it announced on March 6. Part of that plan includes an increase in the deployment of hot bearing detectors, a requirement which is included in this legislation. Norfolk Southern's CEO stated, "Reading the NTSB report makes it clear that meaningful safety improvements require a comprehensive industry effort that brings together railcar and tank car manufacturers, railcar owners and lessors, and the railroad companies. We are eager to help drive that effort and we are not waiting to take action." Even the railroad in question agrees that now is the time for action.

This bill takes a big-government, regulatory approach.

East Palestine has existed for 195 years, since 1828. Ohioans called it East Palestine because there was already a West Palestine in the state. Columbiana County was the site of a way station on the underground railroad, as well as significant abolitionist sentiment. One of John Brown's soldiers is buried twenty miles up the road, in Salem. It was said, in reference to the Civil War, that "no other county in [Ohio] proved more ready to furnish its full quota of men for the suppression of the Rebellion." Each small town and county in the country can lay claim to similar pieces of American history. Conservatives should not permit these communities to be erased from the map by an environmental disaster. That remediation will be costly, and it makes more sense to achieve prevention on the front end of a calamity than remediation after the fact.

On August 8, 2014, the NTSB issued a report on a 20,000-gallon breach of vinyl chloride in Paulsboro, New Jersey. The report states, "Damage estimates were \$451,000 for equipment and about \$30 million for emergency response and remediation." This release is approximately one-fifth the size of that in E. Palestine, and this does not include the other chemicals released during the Ohio derailment.

These regulations remedy a market failure. If what is efficient for a railroad is a razor-thin margin of safety, it does not follow that that razor-thin margin is efficient for the country-at-large. Policymakers have a right and responsibility to address this issue to strike the right balance. The regulation will also have to go through the standard regulatory process under Executive Order 12866, which requires the usual regulatory impact analysis, which includes economic and cost-benefit analysis. While some suggest this a formality, the Electronically Controlled Pneumatic Brake rule for trains foundered on the inability of the administration to demonstrate its economic benefit via cost-benefit analysis.

This bill will simply lead to more transportation by truck of hazardous materials, a less safe mode of conveyance.

Trucks crash too, but there is a unique danger of concentrated explosions and chemical discharge with large trains. What E. Palestine's situation represents is a major environmental issue--federal remediation will be required just to keep the town alive. Trucks containing hazardous chemicals don't present the danger of rendering an entire zip code into a brownfield site. Major federal investments will be necessary in order to rehabilitate East Palestine. Prudentially, the greater, regional risk should receive consonant safeguards. The federal maximum gross truck weight is 80,000 lbs. A single railcar of vinyl chloride contained 178,000 lbs. of gas in the E. Palestine accident.

This bill contains provisions that are union priorities not related to East Palestine.

Railway safety is related to the East Palestine derailment. All provisions in this bill deal with railway safety. Even the railroads have conceded that the wayside bearing defect detectors need to be more frequent in order to avoid accidents such as these. Some have criticized the two-person crew requirement. The accident at Lac-Megantic, where 47 died in 2013 after a train with one crewmember derailed in Canada, provides an illustrative example. The FRA found in 2016, that the agency's "position is reinforced by research and review of accident information, which confirms that railroads that provide two qualified crewmembers, who can work as an effective team on those unit trains (which commonly consist of over 100 loaded tank cars of crude oil), improve the safety of those operations."

The FRA found that, in regards to the train collision at Casselton, North Dakota, significant value in two-man train crews:

Adding these two emergency response moves together, the grain train's crew was responsible for moving approximately 70 loaded crude oil cars in the key train out of harm's way. These urgent moves would have been much more time consuming and logistically difficult if the grain train was operated with only a one-person crew. For those reasons, there is a question of whether either of these emergency response moves would have been attempted with a one-person crew.

The East Palestine Train had three crew members, and it did not prevent the derailment, but it is quite possible it would have been worse without having sufficient redundancy in place. Policymakers should consider whether it is appropriate to entrust a single individual with the responsibility for moving millions of pounds of hazardous material.

This bill will make America less competitive:

Derailments in the United States are much more common than in other countries. In 2019, 1,338 derailments took place in the US over about 777 million train kilometers. The EU, by contrast, only saw seventy-three derailments that year in spite of the fact that there were more than 4 *billion* rail kilometers travelled that year. In Japan, there were 2 billion train kilometers travelled, and only nine derailments. Railroads in other developed countries are generally substantially less accident-prone.