Federal NTSB report finds East Palestine, Ohio derailment preventable, "vent and burn" unnecessary

Samuel Davidson 9 July 2024

Do you work at Norfolk Southern or another Class I railway? Do you live in East Palestine or a neighboring community? Tell us what you know about the Norfolk Southern disaster by filling out the form at the bottom of this article. All submissions will be kept anonymous.

Last year's train derailment in East Palestine, Ohio was preventable. The decision to "vent and burn" 1.1 million pounds of toxic chemicals was based on inaccurate information. And Norfolk Southern was using inferior rail cars to carry highly flammable materials. These were among some of the key findings in the investigation conducted by the National Transportation Safety Board (NTSB) into the derailment which led to the poisoning of a working class community last year.

At a board meeting held in East Palestine, Ohio, the National Transportation Safety Board investigators presented their findings and recommendations on the derailment and the release of highly toxic chemicals into the ground, water and air in the small town and the surrounding community.

In releasing the findings, NTSB Chair Jennifer Homendy said that Norfolk Southern was uncooperative with the agency; "demonstrated complete disregard" for the rules and regulations; withheld and delayed providing vital information; and at times acted in a threatening manner to the agency and its investigators.

The NTSB investigation makes clear that Norfolk Southern was responsible for the derailment, which they found could have been prevented, as well as the decision to "vent and burn" 1.1 million pounds of vinyl chloride, poisoning of the community for miles around.

A new study published last month in the journal *Environmental Research Letters* shows that pollutants from the fire were found in 16 states. Hundreds of residents of East Palestine and the surrounding communities had developed symptoms of chemical poisoning, such as burning eyes, nose and throat, nosebleeds, headaches, rashes and hair loss.

While the NTSB made several important safety recommendations, the agency has no enforcement powers, and most of the recommendations will not be enacted by Congress, whose members receive millions of dollars in lobbying funds from Norfolk Southern and other Class 1 rail carriers to ensure that regulations that impose on their profits are not enacted.

A 13-page synopsis is available here, with the full report

expected within a few weeks.

Among the key findings of the NTSB investigation:

• The February 3, 2023 derailment was preventable and happened because Norfolk Southern deliberately did not act on warnings it received from wayside detectors, which showed that the train was failing miles before the derailment.

• The report confirmed what many residents and hazardous materials experts have long been saying—that the decision made to "vent and burn" five tanker cars filled with over a million pounds of highly toxic vinyl chloride was unnecessary.

• Investigators found that Norfolk Southern withheld vital information from emergency workers that the five tanker cars carrying vinyl chloride were *not* heating up and in danger of exploding.

• Norfolk Southern did not notify firefighters and other first responders in a timely manner that the train was carrying highly toxic chemicals and that those cars were among the ones that derailed.

• Roughly 25 percent, one in four, of the rail cars on the train did not meet federal safety standards.

• Norfolk Southern continues to use DOT-111 tank cars to transport hazardous and flammable liquids even though they are known to be substantially weaker than the stronger DOT-105 tank cars and more prone to rupture during derailments. The NTSB has repeatedly issued warnings about the DOT-111 cars and advised that they are not to be used to transport flammable or hazardous materials.

• The NTSB found that crew members acted correctly and were not responsible for the derailments.

Notably, the NTSB report did not comment on the practices of the railroads of cutting the crew sizes on trains; increasing the length of trains; and cuts to the maintenance and inspection of rail cars before they leave the yards.

The derailment was caused by the failure of an axle on a hopper car. For about an hour prior to the derailment, Norfolk Southern was aware that the bearing on the axle was overheating. But because company procedures did not specify warning the train crew of the problem or instructing them to stop the train and inspect the wheel, the train continued down the tracks.

In Salem, Ohio, about 20 miles west of East Palestine, a wayside detector recorded a temperature of 105 degrees above ambient

temperature for the bearing. Video taken by a security camera near Salem shows sparks and flames coming from the wheel.

Despite these alarms, Norfolk Southern's procedure was not to notify train crews at this level. As the NTSB report noted, this is further problematic because it is a commonly known fact that wayside detectors are measuring the temperature of the outside of the wheel bearing, while the internal temperature is much higher.

Salem, Ohio, is about 20 miles west of East Palestine, and it would take the train about 45 minutes to reach East Palestine. Had the crew been alerted, they could have safely slowed and stopped the train without a derailment.

Inferior tank cars

The report noted the continued use by Norfolk Southern and the other railroads of DOT-111 tank cars to transport flammable and hazardous materials.

This part of the investigators' report has received almost no coverage in the press, yet it again demonstrates that it is the drive for profits by the railroads that puts the health and lives of railroad workers and the public at risk.

The investigation found that the most likely cause of the initial fire was the rupture of one or more DOT-111 cars carrying butyl acrylates.

The report noted that it has long been known that the DOT-111 tank cars should not be used to transport flammable and hazardous materials because they are weaker and more prone to break during derailments. It noted that the railroads are not likely to voluntarily remove them from service "because of economic and business disincentives." In other words, because it would cut into their profits.

"Vent and burn"

On February 6, 2023, three days after the accident, Norfolk Southern and its contractors made the decision to "vent and burn" the five tanker cars carrying vinyl chloride. While described as a "controlled burn," it was nothing of the sort.

Explosives were detonated on the five tanker cars, releasing and setting fire to their contents. A fireball erupted 200 feet into the air which could be seen for at least 20 miles. A plume of thick dark smoke traveled upward and spread pollution for hundreds of miles.

Vinyl chloride is highly toxic, and can damage the eyes, nose and lungs, along with the liver, heart, brain and other organs. In high enough concentration it is deadly. Dioxins are one of the byproducts of burning vinyl chloride. According to the CDC, dioxin is the most potent cancer-causing chemical ever tested, and does not decompose, so it continues to build up in the environment.

The report found that Norfolk Southern and its contractors failed

to inform the incident commander of vital information from the manufacturer of the vinyl chloride. This incorrect information was that the chemical was stable and not in danger of an uncontrolled explosion.

It found further that "NS compromised the integrity of the decision to vent and burn the tank cars by not communicating expertise and dissenting opinions to the incident commander making the final decision."

Norfolk Southern has responded to the NTSB report by doubling down on its claim that the "vent and burn" was the only available choice. The railroad repeatedly stated that it is time to "move on."

Despite pledges to uphold safety, the railroads continue to experience train derailments at an alarming rate. Just this past week a train carrying hazardous materials in North Dakota derailed, with 29 cars veering off the tracks, about half of which caught fire.

Also on July 6, a railroad employee was killed while working in a yard in Melrose Park, Illinois. Train accidents in rail yards continue to go up, and about half of the NTSB's open investigations involve fatalities.

The NTSB report makes over 30 recommendations to improve railroad safety and reiterates several recommendations that it had made previously.

However, because the NTSB has no enforcement powers, no Norfolk Southern officials will be arrested and held accountable for the crimes they have committed. The recommendations must either be voluntarily adopted by the railroads or enacted by Congress in legislation. Outside of the most meager reforms, as investigators noted, the more sweeping changes will not be accepted "because of economic and business disincentives."

In the immediate aftermath of the disaster, a number of well publicized hearings were held in Congress. Ohio Republican Senator J.D. Vance and Ohio Democratic Senator Sherrod Brown promised swift passage of the Railroad Safety Act. That bill has died in committee as lobbyists for both Norfolk Southern and the other Class 1 railroads spent millions.

Neither Democrats nor Republicans have any intention of developing meaningful safety regulations if they cut across the industry's profit margins. Making whole the residents of East Palestine and other communities affected by derailments and stopping the reckless profiteering that leads to accidents must be based instead on the independent mobilization of the working class.



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