I suggest the following corrective actions:

1. Require that there be both disclosure and quantification of derailment impacts and emergency response plans;
2. Require a minimum of two crew members per train, and require that the engineer be tested for sleep apnea;
3. Require safer tank cars, because currently CPC-1232 tank cars won't be fully upgraded to newer safer standards until 2029;
4. Institute both track rail quality standards and the periodic replacement of worn-out tracks. Currently rail companies self-regulate how far down they can wear their tracks and there are overwhelming examples of compromised safety.
5. Mandate that the findings of any FRA Derailment Report may be used in any civil action for damages. Read more about it here.
6. Limit the length of hazardous material trains to prevent derailments. Evidence indicates that most trains that have derailed were over 100 cars long;
7. Require Electronically Controlled Pneumatic brakes (ECP) on all hazardous and LNG trains. ECP is a tested technology that offers major benefits in freight train handling, car maintenance, fuel savings, and network capacity -- all of which significantly enhance rail safety and efficiency. (10)
    - Expand the definition of a hazardous cargo train to one carload of flammable/dangerous material = "hazmat unit"
    - any train containing 1 or more hazmat units is subject to:
        - ECP brakes mandated
        - lower max speeds (experts recommend 20 mph) through populated areas
        - max train length 1 mile (alt: add caboose w/3rd staffer & ECP switch, up to 2-mile length)
        - notification to all jurisdictions on route incl. material id
    - double hotbox detection frequency to 10-mile max (or add onboard detectors)
    - lower detector action threshold from 200° above ambient to 120°

- Require railroad safety regulators act to act immediately to set temporary maximum safe train lengths and establish permanent train length regulations within a reasonable time.
- Replace antiquated subsurface water/sewer lines and inadequate water drainage systems

These are all commonsense action items --but it is essential to fund grassroots countermeasures on rail safety and policy reform before a really catastrophic derailment occurs-rather than focusing on emergency response. That is because this industry is entirely imbedded in the Government. The leader of the opposition was a rail lobbyist, now Senator Thune. We can talk more about him and the Railway Safety Act in the Q & A segment.

What I've covered so far has been at the federal level. There are also opportunities for state-level campaigns:

Note that other high rail corridor states including California, New York, New Jersey, Minnesota, Washington, and Oregon all have laws expressly permitted by the Federal Oil Pollution Control Act of 1990 (OPA) that:

1. Impose strict liability, in the event of a derailment involving an oil spill or explosion, for all property damage, health costs, lives lost, require the restoration of natural resources, and permit punitive damages.
2. The OPA also allows states to impose fees on oil landed or transferred into the state once it comes off a rail car. (This was never even challenged by the railroads in California.)
3. In terms of oil spill response planning, it covers more than just the plan, it allows requiring training equipment, communication systems, and qualified officials to coordinate with the first responders. It also requires cleanup.

In court challenges, the railroad argued that if federal standards exist, they are exempt. The states got around that exemption by passing laws of general applicability to all industries covering health and safety of all citizens.

States are also allowed to ensure that a railroad is financially responsible either through insurance or the posting of bonds. Sadly enough, Pennsylvania currently has none of the above. Federal laws relating to oil spills are just the floor and the state can require more. Moreover, states can regulate where the government has failed to do so.

State and local governments share authority with the feds to enforce federal safety standards and they can conduct inspections which are paid for by rail industry assessments.

While there are a lot of gray areas, there is no dispute that states and local governments maintain police powers, and public health and emergency response plans with regard to offloading facilities and refineries.

They can deny land use permits for expansion if they find improper safety risk or improper mitigation under state statutes.

While only the federal government can regulate train routes, city and state governments ***can*** control what new infrastructure gets approved within their borders. Many proposed rail projects must undergo state-level environmental reviews and public comment periods.

Local and state governments can also push for safer conditions, with regular inspections and upkeep of tracks and (often old and crumbling) rail bridges.

Some states have also begun requiring rail companies that transport crude oil through their cities to provide emergency response plans and the funds necessary to carry them out.

On January 29, 2018 Washington State Governor Jay Inslee rejected a permit required for Tesoro-Savage to build the Vancouver Energy oil-by-rail facility, the largest such project in the nation, at the Port of Vancouver. The project was determined to be absurdly dangerous and too potentially destructive.

Recently, both the Washington and California courts have denied other oil-by-rail projects because those projects lacked comprehensive environmental reviews.

The biggest victory occurred in 2016 when the city council in Benicia, California, voted unanimously to reject Valero's proposed oil-by-rail project and the Federal Surface Transportation Board then ruled that local communities had the right to weigh in on oil-by-rail projects proposed in their area.

That decision gave communities the right to say the safety of the community matters.

As a result of the Surface Transportation Board decision, the biggest threat facing the industry today is local regulation of Crude Oil/Ethanol Unit Train loading and unloading projects involving non rail carriers.

In closing, consider that with each passing train, the rail operators are playing Russian Roulette with you -- they are spinning the gun's cylinder and we are all literally dodging bullets. So far, we have been just plain lucky.

I've known for sure, and now everyone now knows, that Norfolk Southern's complete arrogance and disregard for the health and safety of people is what drives our grassroots members, and will drive those that you fund.

Funders must encourage communities to use their voice to contact federal and state officials. The more of this that happens, at every level, the more difficult it will be for elected leaders to serve polluters instead of their constituents.

If there is one thing that I have learned in my old age is that you cannot underestimate the power of what a community can do when they stand together.

We all deserve power without pollution and energy without injustice.

Q & A

The Bipartisan Rail Safety Improvement Act would:

- ✓ strengthen rail car and railway detector inspection requirements- such as mandating that a hotbox detector scan trains carrying hazardous materials every 10 miles;
- ✓ require rail carriers to provide advance notice to state emergency response officials about what they are transporting;
- ✓ authorize $22 million for the Federal Railroad Administration and $5 million for the Pipeline and Hazardous Materials Safety Administration to research and develop stronger tank car safety features;
- ✓ increase fines for safety violations and funding for training and strengthening rules for high-hazard, flammable trains.

But it stops short of dictating major regulatory changes, leaving the matter to the FRA and the Transportation Department.

The legislation emerged a day after two House Democrats introduced a more restrictive bill that would impose:

- ➢ more stringent rules, including a slower speed limit;
- ➢ requirements for more sophisticated equipment on trains carrying a wide variety of hazardous substances;
- ➢ would broaden the definition of what is considered a "high-hazard flammable train," subject to stricter federal safety regulations (The train that derailed this month was exempt from such requirements).

What did the Rail Unions have to say:

Railroad Workers United (RWU), said the Railway Safety Act proposed by a bipartisan group doesn't address what the group says are other pertinent issues, such as proper training standards, adequate staffing levels for both operating and nonoperating crafts, train length, ECP brakes, and adequate sick leave provisions.

"We have a once-in-a-lifetime opportunity to win major safety improvements to the rail industry in the U.S but the concern is over what is glaringly left out of the bill and what aspects are left to the DOT and FRA to draft, implement, and administer." There is no confidence that those agencies will handle them thoroughly because these agencies are administered and staffed by former railroad management and thus "have a history of subverting rail safety, issuing waivers, and all too often serve the rail industry's agenda."

The Brotherhood of Locomotive Engineers and Trainmen said the bill's language on train crew sizes and requiring train crews of at least two people has potential loopholes, such as the regulation applying only to long-distance freight trains.

"If the language is not precise, the Class I railroads will avoid the scope of the law without violating the law, yet again putting the safety of our members and American communities into

harm's way." BLET National President Eddie Hall said "You can run a freight train through the loopholes."

Meanwhile, SMART Transportation Division President said "The provisions in this act add up to the end of the era of Precision Scheduled Railroading (PSR) and attempt to take back control of our nation's supply chain from Wall Street's 'profit at any cost' mentality. It offers a chance for the nation to make the giant rail corporations take rational measures to get the industry to do what it's designed to do — move freight through our nation safely and efficiently and be an example for the rest of the world to model."