GOVERNMENT MUST DO MORE IMMEDIATELY TO PREVENT OIL SPILLS FROM TRAINS

SAFER TANK CARS NOW

By Editorial Board [Washington Post]

Yet another train carrying tons of unrefined oil derailed last week, this time in Lynchburg, Va. Fifteen oil cars jumped their tracks, and three tumbled into an embankment of the James River. Some of the oil caught fire, releasing a black plume into the air and prompting local authorities to evacuate the area. Some of the crude leaked into the river, which supplies drinking water to Richmond.

Energy is a dirty business, and feeding a modern economy the juice it needs to keep turning will never be risk-free. But it does not have to be as risky as it has become. The United States has started to produce huge quantities of oil out of deposits in states such as North Dakota, where energy companies are sucking it out of geological formations they had previously left untapped. Their capacity to take it out of the ground, though, has increased faster than their ability — or willingness — to transport it safely to refineries. The result, according to a McClatchy analysis, is that more oil spilled in train accidents last year than in the nearly 40 preceding years combined.

Oil trains can be massive, each carrying as much as 85,000 barrels. The volatile properties of some North American oil, meanwhile, makes it more dangerous than other sorts of crude when spilled . An accident in Lac-Mégantic, Quebec, last July tragically illustrated this. Runaway oil cars exploded in the Canadian town, killing 47 people. Less dramatic but also worrying were subsequent oil car spills in Alabama, North Dakota and, now, Virginia.

In response to this environmental and safety threat, the government should do two things. First, it should permit, without unnecessary fuss, energy companies to build pipelines through which to transport their products so they do not have to use rail. The controversial Keystone XL pipeline is only one of many potential projects.

Second, the government must enforce tough regulations on oil cars — the sooner the better. The Transportation Department has arrived at some voluntary new rules with rail companies that will slow oil cars down in populated areas and encourage more inspections. But it needs mandatory, enforceable standards. These should codify the voluntary guidelines already in force, and they must include obligatory car upgrades, as many in service now are too easy to puncture. Regulators should also consider a new official classification for certain types of oil products that reflect their more-volatile properties, which would facilitate proper handling and transportation.

The Transportation Department last week sent the White House a proposal for a comprehensive package of new rules. The administration has sat on important regulations in past election years. It must not do so this time.

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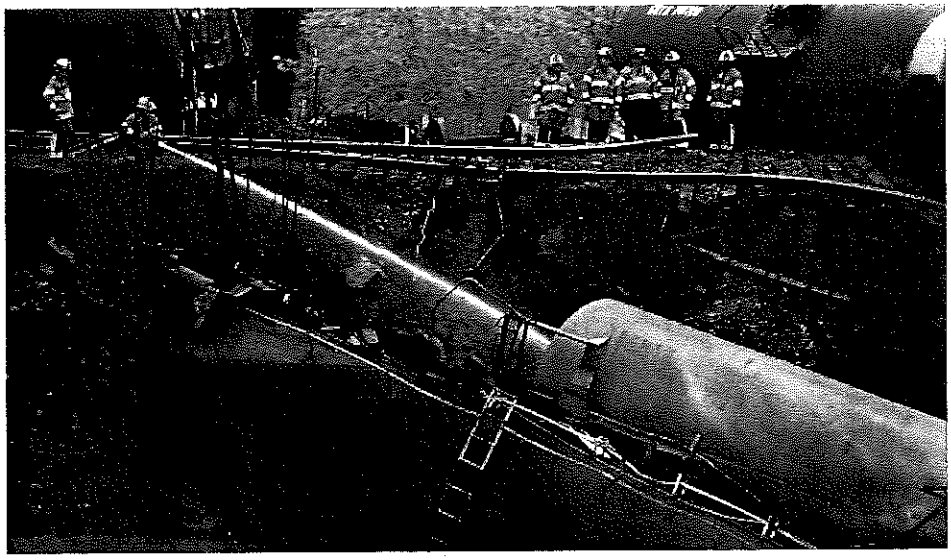

SAFETY STANDARDS FOR OIL TRAINS ARE WAY OFF TRACK

SAFER TANK CARS NOW

By Editorial Board [Washington Post]

Residents near Mount Carbon, W.Va., heard a "big boom" on Monday, an explosion so forceful that it resulted in a fireball hundreds of feet high and sounded like a massive bomb exploding. Days later, toppled tank cars from a derailed train carrying 3 million gallons of oil were still burning near the Kanawha River, and officials were still scrambling to protect local water supplies.

This latest oil train disaster was bad — but it could have been worse. Oil trains travel through areas that are more densely populated. In this case, no one died — unlike the dramatic 2013 accident that obliterated part of a Quebec town and killed 47 people. In addition, the cars that derailed in West Virginia exceeded government safety standards. So did the cars that toppled off their tracks in Lynchburg, Va., last year. More dangerous oil-car models rattle around the country every day.

Federal regulators should have mandated modernization years ago. But, until recently, so little oil traveled by rail that upgrades were not a priority. The amount of oil traveling by rail in the United States soared 40-fold between 2008 and 2012 — and doubled again in 2013. McClatchy Newspapers calculated last year that more oil spilled from oil trains in 2013 than in the previous 40 years combined.

Now government overseers are debating how high to set new standards and how long to give the industry to comply with them. Regulators should require cars that are safer than the ones that derailed in West Virginia. For example: Protective jackets would make cars less prone to puncture; ceramic thermal insulation would prevent fires outside train cars from heating sealed contents; upgraded valves would make oil release less likely in a derailment; shields would prevent cars from crumpling. Regulators can also demand that old oil cars be retrofitted. Though this might not offer as much protection as new equipment, it is a pragmatic way to repurpose existing infrastructure.

Federal overseers also should set an ambitious schedule to finish retrofitting and replacing old cars, and they should do so soon. The White House's Office of Management and Budget is considering a proposal from the Transportation Department. Regulators should finish their review sooner rather than later.

The oil industry predictably is pushing for less stringent standards and longer timelines. Its lobbyists argue that only a tiny fraction of oil transported by rail ever spills or, worse, ignites. And raising transportation costs for oil companies operating in the United States could crimp domestic production at a time when crude oil prices are low.

These arguments should be rejected. Accidents have become too frequent and are potentially too catastrophic. It's unfortunate that the safety of rail freight wasn't improved earlier, but now that the business is booming, the country needs to catch up.

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Smoke rises from railway cars that were carrying crude oil and derailed in downtown Lac-Megantic, Quebec, in 2013. Regulators in Canada and the United States have been working on new standards for trains that carry flammable fuel.

PHOTOGRAPH by STEVEN WAYNE ROTSCH/AP

TYING IN THE KEYSTONE XL DEBATE

The American Petroleum Institute, which represents the oil and natural gas industry, also says the 2017 deadline to retrofit tank cars is too aggressive and could slow oil and gas production.

In comments to U.S. regulators and the press, API tied the safety upgrades to approval of the proposed Keystone XL pipeline, which would transport Alberta's tar sands oil through the Midwest to Texas refineries.

If Keystone is not built, API president Jack Gerard said in September that the cost of the proposed oil tank rules would nearly double to $45 billion because demand for transporting crude by rail would be higher. (See related story and map: "Keystone XL: 4 Animals and 3 Habitats in Its Path" and "Interactive Map: Mapping the Flow of Tar Sands Oil")

Both API and the Rail Supply Institute have also warned regulators that a short time line for retrofitting oil cars could cause a spike in truck shipments of oil and ethanol.

But Anthony Swift, an attorney with the Natural Resources Defense Council, an environmental group opposed to Keystone XL, called these arguments misleading. Swift said Keystone XL would have little impact on retrofitting tank cars, because most train traffic from the Bakken oil fields in North Dakota moves to East Coast and West Coast refineries. He said that traffic would not be affected by the pipeline.

Keystone XL would have the capacity to carry 830,000 barrels of oil- sands crude a day, with up to 100,000 barrels a day set aside for crude from the bakken. by 2016, the rail industry in Canada is expected to carry about as much oil as Keystone XL would. The U.S. rail industry is already there: Almost 760,000 barrels a day of crude had traveled by rail by August.

Swift said the costs to the oil industry are worthwhile if lives are saved. "The argument that we need to wait until the oil industry does not need tank cars until we can make them safe is ridiculous on its face," he said.

GREENBRIER GEARS UP TO MEET DEMAND

In February, Greenbrier introduced a beefed-up tanker with a 9/16-inch steel shell (1/8-inch thicker than many DOT-111 cars), 11-gauge steel jacket, removable bottom valve, and rollover protection for fittings along the top of the cars.

Greenbrier calls the tanker the "car of the future," saying it's eight times safer than the DOT-111. Isselmann said Greenbrier has received more than 3,000 orders for the new car and plans to double its manufacturing capacity by the end of the year.

In June, Greenbrier and Kansas rail-service company Watco joined forces to form GbW Railcar Services, creating the largest independent railcar repair-shop network in North America. Isselmann said the company plans to hire 400 workers and start second shifts at its factories to meet demand for retrofitting DOT-111 tank cars.

In comments to U.S. regulators, GbW said it currently has the capacity to retrofit more than 10 percent of the fleet of DOT-111 tank cars.

Isselmann said that number will grow as other companies take advantage of the market once regulators release final rules. For that reason, he said the industry's current capacity to meet regulations is less important than its ability to ramp up quickly to capture the increased business that new safety standards could bring. "This notion that the status quo is going to remain—it's diversionary at best," Isselmann said.

Some in the industry are responding to public concern before rules are finalized. In April, Irving Oil—the owner of Canada's largest refinery, in Saint John, New brunswick, where the Lac-Mégantic train was headed before the disaster—completed a voluntary conversion of its crude oil railcar fleet.

Also in April, Global Partners, one of the largest U.S. distributors of gasoline and other fuels, began requiring all crude oil unit trains making deliveries at its East and West Coast terminals to meet October 2011 safety standards for tank car design.

"As an industry, we have both an opportunity and a responsibility to maximize public confidence in the safety of the system that carries these products across the country," Eric Slifka, Global Partners' CEO, said in a press release.

A PUSH TO HARMONIZE REGULATIONS

As the U.S. and Canada consider train safety regulations, oil and rail companies are pushing to ensure that the same tank cars can be used to haul flammable liquids in both countries.

Regulators say they are working together to make that happen. Lauren Armstrong, a spokeswoman at Transport Canada, said the department is holding technical discussions on new tank car standards with the U.S. Department of Transportation and the Federal Railroad Administration.

However, coordinating tank car regulations between the two countries would have to overcome current gaps, industry representatives say.

In April, Transport Canada banned the use of the oldest and least crash- resistant DOT-111 tank cars, which lacked bottom reinforcement. The U.S. so far has not banned the cars from carrying oil and ethanol.

Canada also set a 2017 deadline for retrofitting the cars. In the U.S., regulators are expected to release final rules by early 2015. The process, however, could continue much longer.

The strongest standards will carry the day, said Thomas Simpson, the president of the Railway Supply Institute. Given the large amount of oil that moves between the two countries, Simpson said it makes no business sense for companies to keep two different sets of cars to meet the two sets of rules.

COMMUNITIES CONCERNED ABOUT SAFETY

But as final rules are being hammered out in the U.S., some train safety advocates and community groups worry they are being left out of the process.

Karen Darch, co-chair of TRAC, a coalition of Illinois communities concerned about train congestion and rail safety, said she is hopeful that final rules will include a fast deadline to retrofit old cars. (See related story: "Illinois Village Leads Charge for Tougher Train Rules")

But she said rail and oil industry lobbyists have had much more access to policymakers than community advocates, and she's concerned they will have a greater impact on final rules.

"The inside players, the guys in the industry," she said, "they seem to be able to be in front of the decision-makers more than we have been."

The story is part of a special series that explores energy issues. For more, visit The Great Energy Challenge

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NEW OIL TRAIN SAFETY RULES DIVIDE RAIL INDUSTRY

SAFER TANK CARS NOW

Many railroad companies want more time to retrofit cars in the U.S. and Canada, but some are forging ahead.

Joe Eaton for National Geographic

Three days after an oil train derailed and exploded in 2013 in Lac-Mégantic, Quebec, killing 47 people, Greg Saxton wandered through the disaster site inspecting tank cars.

For Saxton, the damage was personal. Some of the tank cars were built by Greenbrier, an Oregon-based manufacturer where he's chief engineer. Almost every car that derailed was punctured, some in multiple places. Crude oil flowed from the gashes, fueling the flames, covering the ground, and running off into nearby waterways.

Each day, as Saxton returned to the disaster zone, he passed a Roman Catholic church. "We never came and went when there wasn't a funeral going on," he said.

In the wake of this and other recent accidents as energy production soars in North America, Canadian and U.S. regulators are proposing new safety rules for tank cars that carry oil, ethanol, and other flammable liquids. Saxton and Greenbrier have pushed for swift changes, but others in the industry are asking for more time to retrofit cars like the type that exploded at Lac-Mégantic. (See related stories: "Oil Train Derails in Lynchburg, Virginia" and "North Dakota Oil Train Fire Spotlights Risks of Transporting Crude")

"If you don't set an aggressive time line, you won't see improvements as quickly as the current safety demands require," Jack Isselmann, a Greenbrier spokesman, said. "We've been frankly just perplexed and confused by the resistance."

INDUSTRY PUSHES FOR MORE TIME

The tank cars that derailed at Lac-Mégantic were built before October 2011, when the American Railway Association mandated safety enhancements to the oil and ethanol tankers known in the industry as DOT-111 cars. The cars lacked puncture-resistant steel jackets, thermal insulation, and heavy steel shields, all of which could have lessened the destruction, experts say.

In July, the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) proposed rules that, if finalized, would require higher safety standards for new oil cars. The rules also require owners to retrofit older cars or remove them from the rails by October 2017.

Canadian regulators in July mandated that DOT-111 tank cars built before 2014 be retrofitted or phased out by May 2017. Transport Canada, which regulates rail safety, has also proposed aggressive safety standards for new tank cars and will seek industry comment this fall before finalizing its rules.

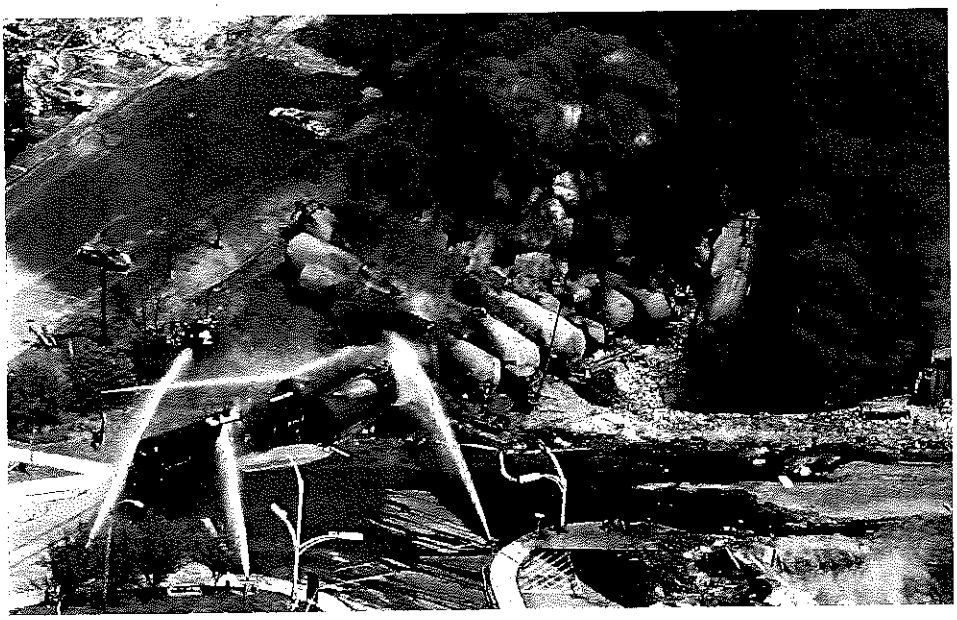
Saxton and others at Greenbrier support the proposed regulations, which could be tremendously lucrative to the company. However, others in the rail supply industry say the proposed retrofit time line cannot be met.

The Railway Supply Institute—a trade organization that represents the rail industry—has asked DOT to allow legacy cars in the oil and ethanol fleet to remain on the rails until 2020.

Thomas Simpson, the institute's president, said a survey of rail maintenance and repair shops found that only 15,000 of the roughly 50,000 non-jacketed legacy tank cars in the crude oil and ethanol fleet can be modified by the proposed 2017 deadline.

For many cars, the retrofit process would include adding thermal protection systems, thick steel plates at the ends, and outer steel jackets, as well as reconfiguring the bottom outlet valve to ensure it does not break off and release oil during a derailment.

That's too much work to complete before the deadline, and the regulations have not yet been finalized, Simpson said. The proposed deadline, he said, will "idle cars waiting for shop capacity and adversely affect the movement of crude and ethanol."



Smoke rises from railway cars that were carrying crude oil and derailed in downtown Lac-Megantic, Quebec, in 2013. Regulators in Canada and the United States have been working on new standards for trains that carry flammable fuel.

PHOTOGRAPH by PAUL CHIASSON, ASSOCIATED PRESS

TANK CAR OF THE FUTURE INCREASES RAILCAR SAFETY

SAFER TANK CARS NOW

Retrofits of Existing Fleet

JACKETED

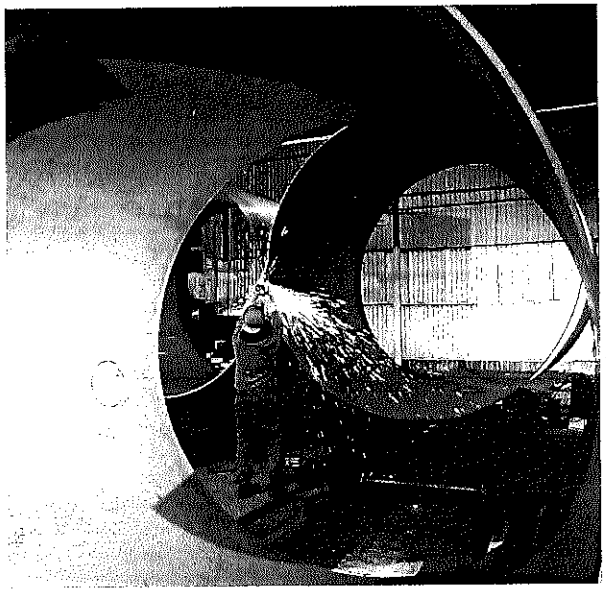
CPC-1232

Should continue in Class 3 flammable service subject to:

- Reconfigured bottom outlet valves
- Increased size of the pressure relief valve

NON-JACKETED

CPC-1232

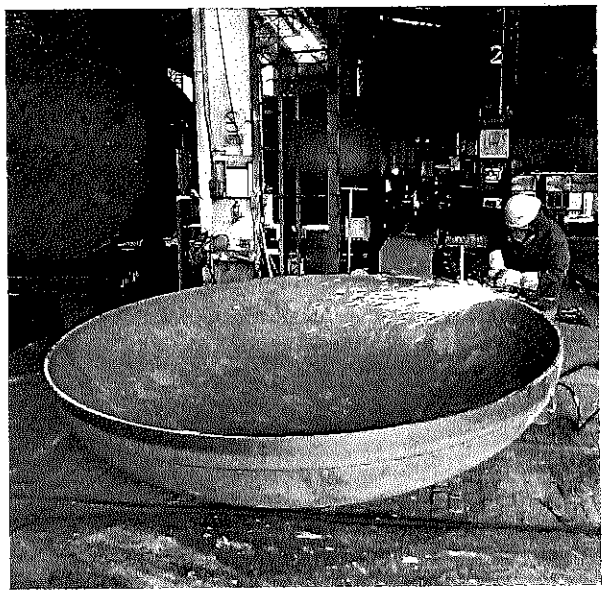


Should continue subject to modifications such as:

- 11 gauge steel jacket
- Addition of 1/2" ceramic insulation
- Reconfigured bottom outlet valves
- Resized pressure relief valves

DOT-111

("LEGACY")



Should continue subject to significant modifications such as:

- Addition of full-height 1/2" head shields and 11 gauge steel jacket, if un-jacketed
- Reconfigured bottom outlet valves
- Resized pressure relief valves
- Existing steel in heads and shells
- Top fitting protection that conforms to industry standards

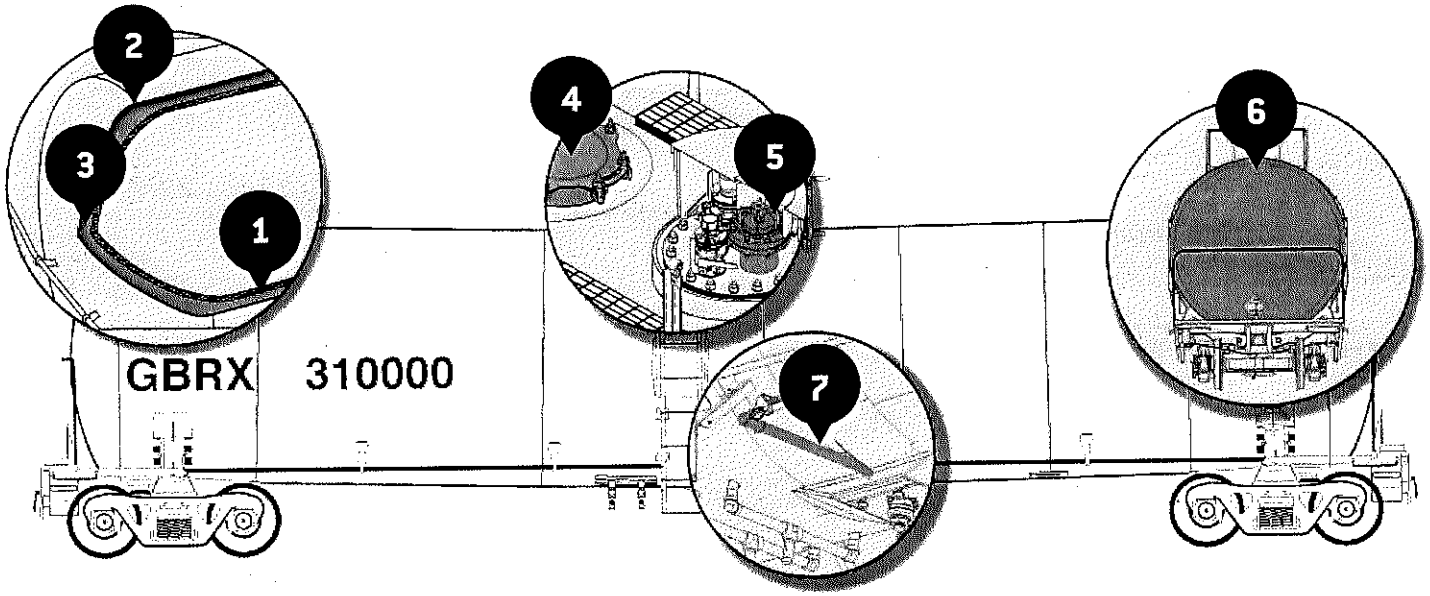
TANK CAR OF THE FUTURE INCREASES RAILCAR SAFETY

SAFER TANK CARS NOW

The New Tank Car Standard

OPTION 2

This "Tank Car of the Future" is more than 80 percent less likely to breach in an accident compared to a legacy DOT-111 tank car



GBX and GBW Railcar Services support this option

1. **9/16 inch steel tank shell**
2. **Minimum 11-gauge steel jacket**
3. **Ceramic Insulation**
4. **Top Fittings Protection**
5. **High-Flow Pressure Relief Valve**
6. **Full height ½-inch-thick head shields on both ends**
7. **Detachable bottom outlet valve handle**

OPTION 1

- **9/16 inch steel tank shell**
- **Electronically controlled pneumatic (ECP) brakes**
- **Rollover protection**

Option 1 Concerns

- For ECP brakes to make a difference, they must be installed on both rail cars and locomotives. This can only be done via separate rulemaking.
- Benefits of TIH Rollover Protection are unproven and would add significant cost to the industry.

OPTION 3

- **7/16 inch steel tank shell**

Option 3 Concerns

- 7/16 inch shell thickness significantly increases the threat of puncture and product release in the event of derailment vs. a thicker 9/16 inch shell.