

U.S. DEPARTMENT OF TRANSPORTATION PROPOSED TANK CAR SAFETY REGULATIONS: THE FACTS

For instructions to submit comments to Docket No. PHMSA-2012-0082-(HM-251) by September 30, 2014, please visit <http://www.regulations.gov>.

On August 1, 2014, the U.S. Department of Transportation (DOT) published its proposed regulations governing the safety of rail tank cars used for transport of hazardous and volatile crude and ethanol. The existing fleet of DOT 111 tank cars is known to be woefully deficient for transporting crude safely. Designed in the 1960s, these rail tank cars have thin shells and head shields that easily puncture, bottom valves and top fittings that shear off during collision, and they lack thermal protections and closeable pressure relief valves. They are prone to rollover and have brake systems that fail to prevent collision. Bakken and other light volatile crudes carried by DOT 111s are highly flammable and explosive. Recent derailments of tank cars carrying highly volatile flammable crude have resulted in fires and explosions that have devastated communities, killing people and causing thousands of gallons of crude to spill into waterways, wetlands and on to private property. Indeed, improved tank car safety standards are needed more than ever, and the public has an opportunity now to weigh in on the agency's proposal. **Public comments on the proposed rule [Docket No. PHMSA-2012-0082-(HM-251)] are due September 30, 2014 and instructions for submitting comments can be found at <http://www.regulations.gov>.** Here is an overview of the proposed rule and the minimum standards that the Obama Administration must implement to reduce the risks of crude by rail transport to public health and safety.

- 1) **The entire fleet of DOT 111 tank cars must be banned immediately from hazardous crude transport.** The proposed rule proposes a 6-year phase out ending in 2020 for deficient tank cars. Under the proposed phase out, the retirement of DOT-111s for shipping most crude oil will not kick in until October 2018. In other words, the proposed phase out will not begin to mitigate the serious risks associated with crude by rail transport for three years. This is unacceptable in light of significant growth in accidents and derailments and warnings by the National Transportation Safety Board that the transport of volatile crude in DOT 111 tank cars poses an imminent hazard to public health and safety. DOT 111 transport of all volatiles crudes must be banned immediately, followed by other high hazard substances within two years.
- 2) **At a minimum, DOT must implement the proposed Pipeline and Hazardous Materials Safety Administration (PHMSA) and Federal Rail Administration (FRA) design option for tank car safety improvements.** DOT presents three options for tank car safety standards: 1) the PHMSA/FRA Design Option; 2) the AAR 2014 Tank Car Option; and 3) the Enhanced CPC 1232 Tank Car. The PHMSA option would require, among other

things, a minimum shell thickness of 9/16 inches; top fitting protections capable of sustaining a rollover accident of 9 miles per hour; and Electronically Controlled Pneumatic (ECP) brake systems installed on all cars enabling faster braking to reduce the likelihood of cars colliding with one another. At a minimum, these standards must be required for all new and retrofitted tank cars in addition to the basic safety upgrades already agreed to by the industry in the CPC-1232 cars.

- 3) **DOT must use all available data to assess the risk and consequences of crude rail car accidents.** The proposed rule estimates the risk of high consequence accidents, such as the devastating and fatal Lac Megantic, Quebec accident, using accident data across all commodities transported by rail. It omits from its analysis the numerous crude rail accidents that have occurred in 2014 as well as all crude rail accidents that have occurred in Canada. The proposed rule also fails to address the potential high cost damages of tar sands spills into waterways, and that high consequence events have resulted in tax payers footing the bill for clean-up. As a result of these omissions, DOT underestimates the risks of and damages from high consequence events, thereby down playing the benefits of the most stringent safety standards.
- 4) **New regulations must apply to all operators carrying volatile crude in any amounts.** DOT creates an arbitrary regulatory compliance threshold of 20-tank cars in a single train, but we know that shipping any quantity of volatile crudes in defective DOT-111 tank cars creates serious risks to public health and safety. As such, DOT should require operators carrying any amount of volatile crude to comply with the new safety regulations.
- 5) **The new regulations must require ALL operators to test and classify hazard levels of crude using the best available technologies, with no exceptions, and DOT must regularly inspect crude shipments and audit operator testing and classification programs.** Knowing the contents and composition of all volatiles crudes is essential for emergency response, public notification, data collection and overall improved system performance. Therefore, DOT must not relax the testing and classification requirements for shippers using the safest packaging. Operators should test for and report on numerous crude characteristics, including vapor pressure, specific gravity, dissolved gas content, and concentration of specific compounds such as sulfur and hydrogen sulfide.
- 6) **Rail operators carrying volatile crude in any amount must be required to notify states and emergency responders of the crude compositions, quantities and frequency of transport; this information must be made available to the public.** The proposed rule requires operators carrying 1 million gallons or more of Bakken crude to notify states and first responders of the rail routes through the state. This requirement should be expanded to cover any hazardous materials, not just Bakken crude, and to apply to all trains carrying these materials because of the serious safety and health risks.

Information about rail routes must be made available to emergency responders and the public when transported in any amount and from any region.

- 7) **DOT must clarify how the regulations would apply to tar sands shipments and ensure that tar sands blended with volatile diluents are covered by the new safety requirements.** The proposed rule assumes that 23,000 DOT 111 tank cars will be shifted into tar sands service but fails to explain whether “tar sands” means raw bitumen or bitumen blended with diluent, also known as diluted bitumen, or “dilbit.” Most formulations of diluent include natural gas liquid condensate containing volatile hydrocarbons such as benzene, toluene, ethyl benzene and xylene. Because diluent is volatile, shipping dilbit in DOT 111s creates unacceptable safety hazards. Dilbit is also extremely difficult to clean up after a spill. DOT should explain what it means by “tar sands service” and clarify that the proposed rule would apply to rail shipments of dilbit.
- 8) **DOT must require at most 30 mile per hour speed limits for all hazardous crude transport throughout the rail lines and avoid rail routing of crude through populous areas.** These additional safety measures are crucial to creating a crude transport system that meaningfully reduces risks to communities throughout the nation.

Deficient insurance coverage justifies robust tank car safety standards. In addition to finalizing the proposed safety rules, DOT must create a mechanism that requires railroads and shippers to carry sufficient insurance to cover the costs of rail accidents, or demonstrate the financial wherewithal to cover all costs of damages. Maximum liability coverage is available for only about \$1.1 billion, which is far below the estimated damages resulting from high consequence events, and railroads often carry less, as was the case with the Lac Mégantic disaster where the railroad had only \$25 million in insurance and went bankrupt, leaving the public to foot the bill. The cost of damages of the Lac Mégantic disaster are at \$1 billion and rising, and DOT estimates damages of high consequence events occurring in densely populated areas at more than \$5 billion. To avoid placing the costs of damages on the public, DOT must require adequate insurance coverage and demonstration by shippers that they are financially capable of picking up the tab. Indeed, this market failure provides strong justification for DOT to adopt strong tank car safety standards that include an immediate phase out of the full fleet of DOT 111 tank cars.

Comprehensive Oil Spill Response Plans for all trains carrying crude are a critical component of reducing risk. DOT also is initiating a separate rulemaking addressing oil spill response planning for crude by rail transport. It is critical that DOT requires comprehensive Oil Spill Response Plans for all trains carrying volatile crude and ethanol. Right now, however, the threshold for requiring comprehensive plans is so high that trains submit only cursory oil spill response plans. With a lower threshold, all trains carrying crude and ethanol would be required to identify and coordinate private and public first responders and ensure adequate personnel,

training and equipment to handle a worse case oil spill. Significant risks to public health and safety exist when transporting quantities smaller than 42,000 gallons, thus preparation of a comprehensive oil spill response plan must be required of all trains with one or more tank cars loaded with crude or ethanol.

We hope this document serves as an informative guide to understanding the proposed rule and for developing your comments to submit to DOT. **For instructions to submit comments to Docket No. PHMSA-2012-0082-(HM-251) by September 30, 2014, please visit <http://www.regulations.gov>.**