

September 26, 2014

Secretary Anthony Foxx
Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Administrator Cynthia L. Quarterman
Pipeline and Hazardous Materials Safety Administration
Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Re: Docket No. PHMSA-2012-0082 (HM-251), Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains - Notice of Proposed Rulemaking

Dear Secretary Foxx and Administrator Quarterman:

In response to train accidents and incidents involving trains transporting large volumes of flammable liquids, on July 23, 2014, the Pipeline and Hazardous Materials Safety Administration (PHMSA), in coordination with the Federal Railroad Administration (FRA), two agencies within the United States Department of Transportation (USDOT), issued a Notice of Proposed Rulemaking (Notice or NPRM). In that Notice, those agencies proposed new requirements for trains transporting Class 3 flammable liquids, including tank car standards, and changes to existing rules for those offering the flammable liquids for transportation.

The Washington Utilities and Transportation Commission (UTC), the Washington State Department of Ecology (Ecology), the Washington State Department of Transportation (WSDOT) and the Emergency Management Division of the Washington Military Department (EMD) jointly file these comments for Washington state in response to the NPRM.

The UTC has authority over railroad safety in the state, and conducts safety inspections under the FRA's State Participation Program. Ecology is responsible for the oil spill prevention, preparedness, and response plans for the state. WSDOT oversees the management of the Amtrak Cascades, intercity passenger rail service along the Pacific

Northwest Rail Corridor, one of 11 federally-designated passenger rail corridors in the United States. In addition, WSDOT owns a short-line rail system and is responsible for the State Rail Plan and freight rail and marine transportation policy. EMD is the state agency responsible for assisting with and managing the state response to natural and human-made disasters and leads the State Emergency Response Commission (SERC).

Given the various roles of these state agencies and their shared interest in ensuring the public safety of the citizens and protecting the unique natural resources of Washington state, the agencies jointly file these comments.

Washington state, the 20th largest state in the nation has a total land area of 66,544 square miles.¹ There are 3,157 miles of railroad track in the state, ranking it 22nd in the nation for track mileage. Traditionally, crude oil has been shipped to the state by waterborne transportation. However, in recent years, there has been an exponential increase in the amount of crude oil shipped to and through Washington state by rail. In 2013, approximately 280 million barrels of oil were shipped by rail through the United States² with approximately 17 million barrels of oil being shipped through Washington.³ This movement of oil by rail in Washington is projected to more than triple in 2014, increasing to 55 million barrels.⁴

Washington state is home to one of the richest and most diverse landscapes in the world, with significant natural and economic resources and communities, including the inland marine waters and estuaries of the Puget Sound, the mighty Columbia River, the volcanic Cascade mountain range, fertile agricultural lands, and populous cities. Currently the majority of the transportation of oil by rail in Washington enters the state at the border with Idaho near Spokane, crosses the Spokane River, travels to Pasco and then westward along the Columbia River Gorge to Vancouver, Washington. Leaving Vancouver by rail, the oil travels north to Tacoma, then along the Puget Sound through Seattle, the most populous city in the state, on its way to Anacortes and Ferndale, near the Canadian border. Empty cars will often, though not always, travel east across the Cascades through Wenatchee on their way out of the state through Spokane.

¹ http://www.statemaster.com/graph/geo_lan_are-geography-land-area.

² U.S. Rail Transportation of Crude Oil: Background and Issues for Congress, Congressional Research Services, May 2014.

³ <http://www.statesmanjournal.com/story/news/2014/05/26/west-coast-oil-trains/9605759/>.

⁴ Senator Murray Press Release on DOT NPRM on Tank Standards, July 2014.

When crude oil is carried by rail it is typically transported in unit trains, i.e., trains made up entirely of one type of cargo. These unit trains can contain more than 100 tank cars with the potential for significant impact on the state's natural resources in the event of a spill or fire. The increased risks identified in the NPRM associated with the transportation of crude oil by rail necessitate immediate and comprehensive action by the USDOT on enhancing tank car standards and operational controls for high-hazard flammable trains with the goal of reducing derailments, incidents, accidents and spills, and increased transparency about the transportation of these flammable liquids.

I. High-Hazard Flammable Train

The NPRM defines high-hazard flammable trains (HHFT) as any train comprised of 20 or more cars transporting Class 3 flammable liquids. The Association of American Railroads (AAR) similarly defines a "key train" as any train with 20 carloads or intermodal portable tank loads of any combination of hazardous materials. The AAR goes further to define a "key train" as any train with one tank carload of Poison or Toxic Inhalation Hazard (PIH or TIH). The NPRM asks for comments on (a) how the HHFT designation affects operating practices and trains carrying other Class 3 flammable liquids; (b) the costs and benefits to including flammable gas and combustible liquids in the definition of HHFT and (c) the risks posed by hazardous materials when in high-hazard flammable trains.

Washington state supports the USDOT's proposal to address specifically trains carrying Class 3 flammable liquids. Washington state requests that the definition of high-hazard flammable trains also include any train carrying one or more tank carloads of a Packing Group I, Class 3 flammable liquid. The risks associated with Packing Group I, Class 3 flammable liquids, which include Bakken crude, should receive the same precautions and mitigation factors associated with PIH and TIH. Further, because of the exponential increase in the transportation of Bakken crude, the volatility associated with the commodity, as well as the amount of such hazardous materials moving into and through Washington, it is necessary to take this precaution in the interest of public safety and protection of the state's natural resources. For these reasons, Washington state recommends amending the definition of a high-hazard flammable train as follows, with changes marked in bold:

§ 171.8 Definitions

High-hazard flammable train means a single train carrying 20 or more carloads of a Class 3 flammable liquid or a single train carrying one carload of a Packing Group I, Class 3 flammable liquid.⁵

II. Classification and Characterization of Mined Liquids and Gases

The development of a sampling and testing program, outlined in the NPRM, regarding the classification and characterization of mined gases and liquids is an important step to ensuring public safety with the movement of HHFTs. The NPRM asks for comments on: (a) clarity in the guidelines; (b) specificity needed regarding a sampling and testing program; (c) incentives for offerors already using the safest packing and equipment standard; (d) differences in the processes and costs of mined gases versus mined liquids; and (e) the variability that exists in product.

Focusing on items (b) and (e) of this issue, Washington state requests that the programs and results from this sampling and testing be made immediately available to the states. One of the most important steps that USDOT must take during this rulemaking, which is beyond those options in the NPRM, but something that communities and first responders in Washington state have requested numerous times, is the need for better communication and access to more complete information about the materials being shipped through the state. It is not enough to say that there is a sampling and testing program in place when those results and the criteria are not made available for review. Another missing component to the sampling and testing program is an independent analysis, whether through random auditing or a third party annual audit.

Further, Washington state supports the classification of Bakken crude as a Packing Group I, Class 3 material. Given the variability of Bakken crude Washington state strongly recommends further analysis of Bakken crude and the current extraction techniques with the goal of reducing the volatility of the product prior to transport. Depending on the region, time of year and mining techniques, Bakken crude is significantly more volatile than other crude oils. The state agencies propose the following changes to the proposed rule on sampling and testing to mitigate concerns with variability, with changes marked in bold:

⁵ Packing group means a grouping according to the degree of danger presented by hazardous materials. Packing group I poses the greatest danger.

§ 173.41 Sampling and testing program for mined gas and liquid.

(a) General. Mined gases and liquids, such as petroleum crude oil, extracted from the earth and offered for transportation must be properly classed and characterized as prescribed in § 173.22 of this subpart, in accordance with a sampling and testing program which specifies at a minimum:

(1) A frequency of sampling and testing that accounts for appreciable variability of the material, including the time, temperature, method of extraction (including chemical use), and location of extraction;

(2) Sampling at various points along the supply chain to understand the variability of the material during transportation;

(3) Sampling methods that ensure a representative sample of the entire mixture, as packaged, is collected;

(4) Testing methods that enable complete analysis, classification, and characterization of the material under the HMR.

(5) Statistical justification for sample frequencies;

(6) Duplicate samples for quality assurance purposes; and

(7) Criteria for modifying the sampling and testing program.

(8) Independent third-party auditing on a set schedule

(b) Certification. Each person who offers a hazardous material for transportation shall certify, as prescribed by § 172.204 of this subchapter, that the material is offered for transportation in accordance with this subchapter, including the requirements prescribed by paragraph (a) of this section.

(c) Documentation, retention, review, dissemination of program. The sampling and testing program must be documented in writing and must be retained for as long as it remains in effect. The sampling and testing program must be reviewed at least annually and revised and/or updated as necessary to reflect changing circumstances. The most recent version of the sampling and testing program, or relevant portions thereof, must be available to the employees who are responsible for implementing it. When the sampling and testing program is updated or revised, all employees responsible for implementing it must be notified, and all copies of the sampling and testing program must be maintained as of the date of the most recent revision.

(d) Access by DOT and the state to a copy of program documentation. Each person required to develop and implement a sampling and testing program must maintain a copy of the sampling and testing program documentation (or an electronic file thereof) that is accessible at, or through, its principal place of business, and must make the documentation immediately available upon request to an authorized official of the Department of Transportation or a designated representative of a state.

III. Rail Routing

The NPRM lists 27 safety and security factors considered in the routing of HHFTs. Washington State finds that this rail routing risk assessment is critically necessary given the significant scenic areas, natural and economic resources and communities through which oil is transported by rail in the state. Washington state strongly encourages making routing risk assessments and factors used in route selection available to state agencies and local responders. The NPRM appears to assume that the railroads simply need to consider the 27 factors but does not explain how they are used or why certain routes are chosen. The USDOT should consider weighting of these factors, giving priority to factors related to public safety and environmental concerns.

In addition, we believe USDOT should mandate sharing this information as well as operational data about the number and timing of trains carrying crude oil with the state and local governments. This is of great concern to Washington and the USDOT must address this gap in this rulemaking.

Finally, Washington state supports the work of United States Senators Patty Murray and Susan Collins in developing the Short Line Rail Safety Institute. Washington state believes the Institute is a positive step in mitigating the risks associated with shipping hazardous materials and strongly encourage the continued support from USDOT on this initiative.⁶

IV. Notification to State Emergency Response Commissions of Petroleum Crude Oil Train Transportation

The USDOT's emergency order, DOT-OST-2014-0067, requiring that railroads notify the State Emergency Response Commission (SERC) when transporting more than a million gallons, approximately 35 tank cars, of Bakken crude oil was a necessary first step. We strongly encourage USDOT to expand the scope of the emergency order to include any movement of any crude oil types in excess of 42,000 gallons, approximately 1.5 tank cars. Broadening the scope of the emergency order would allow for better preparation by the local response community and a more complete understanding of the type of oil moving through our cities and towns. This information is necessary for first responders, but also for those

⁶ <http://www.murray.senate.gov/public/index.cfm/2014/5/oil-trains-murray-collins-lead-bipartisan-push-for-increased-safety-resources-on-short-line-railroads>.

that are tasked with the cleanup of any spill. The different types of crude oils present very different logistical problems in terms of cleanup which may require special equipment in some locations. The need for our state and local first responders to be prepared for a spill or catastrophic accident should outweigh any claimed security sensitivity. The information contained within those reports should be available and posted online for ease of access by local responders and other organizations in the event of an accident or spill.

V. Speed Restrictions

On February 21, 2014, Secretary Foxx sent a letter to the President and Chief Executive Officer of the AAR requesting that AAR and its members subscribe to voluntary actions to improve the safe transportation of crude oil by rail, which included speed restrictions. The industry complied with the voluntary speed restrictions. Washington state supports the USDOT setting in rule speed reduction standards.

The NPRM sets a speed restriction of 50 mph on HHFTs that meet enhanced standards and requests comments on operating speeds on HHFTs not meeting enhanced standards of (a) 40 mph in all areas; (b) 40 mph in high threat urban areas (which include only Seattle, Bellevue and Vancouver in Washington); and (c) 40 mph in areas with a population of 100,000 or more. The NPRM also requests comment on costs associated with delays from speed restrictions, effects on traffic network, safety benefits of speed restrictions, diversion of traffic to other forms of transportation and other geographic delineations to consider.

Because there are populated areas in Washington at risk other than the three cities of Seattle, Bellevue and Vancouver, Washington state encourages the adoption of a reduced speed of no more than 40 mph for HHFTs moving through populated areas in excess of 100,000 people, if the HHFT meets new tank car standards and has enhanced braking system in place. However, the basis for determining an "area" of population in excess of 100,000, such as square acres, county lines, or other factors, should provide for the maximum protection possible, and should be made clear in the rule. Special consideration should also be given to areas deemed by the state to be environmentally sensitive (e.g., the Columbia River Gorge National Scenic Area) or of significant cultural importance, such as usual and accustomed tribal fishing areas.

Currently, BNSF Railway Company (BNSF), which transports crude oil into Washington, voluntarily restricts the maximum speed of loaded unit bulk trains to 45 mph and allows empty unit bulk trains to operate at maximum track speed. Washington state supports a maximum speed of 45 mph, outside of populated areas, for all HHFT's that meet new tank

car standards and enhanced braking system requirements that are the subject of the NPRM, unless otherwise restricted by other maximum speed requirements.

While Washington state supports phasing out the DOT 111 model tank car as quickly as possible, it supports the NPRM recommendation for an immediate speed restriction of 30 mph for any HHFT that does not meet revised tank car standards or have an enhanced braking system in place.

However, Washington state recognizes that speed reductions of HHFT freight movements below 40 mph on shared freight and passenger rail corridors could effect on-time performance of intercity and commuter passenger trains. Passenger train on-time performance is governed by agreements with BNSF and changes in law may require renegotiation of these agreements, impacting federally required on-time performance standards. Freight movements, particularly expedited or time-sensitive shipments, including agricultural commodities, could also be impacted. Further analysis of the causes of derailments and the role that train speed plays should be considered.

VI. DOT Specification 117 – Prescribed Car

The proposed options for new tank car standards are a significant component of the NPRM. These options include:

Tank Car	Head Shield	Shell	Jacket	Top Fittings Protection**	Thermal Protection	Braking
Option 1: PHMSA and FRA Designed Tank Car	Full-height, 1/2 inch thick head shield	9/16 inch Minimum	Minimum 11-gauge jacket constructed from A1011 steel or equivalent. The jacket must be weather-tight	TIH Top fittings protection system and nozzle capable of sustaining, without failure, a rollover accident at a speed of 9 mph	Thermal protection system in accordance with § 179.18	Electronic Controlled Pneumatic (ECP) brakes
Option 2: AAR 2014 Tank Car	Full-height, 1/2 inch thick head shield	9/16 inch Minimum	Minimum 11-gauge jacket constructed from A1011 steel or equivalent. The jacket must be weather-tight	Equipped per AAR Specifications Tank Cars, appendix E paragraph 10.2.1	Thermal protection system in accordance with § 179.18	In trains with Distributed Power (DP) or End of Train (EOT) devices
Option 3: Enhanced CPC 1232 Tank Car	Full Height 1/2 inch thick head shield	7/16 inch-Minimum	Minimum 11-gauge jacket constructed from A1011 steel or equivalent. The jacket must be weather-tight	Equipped per AAR Specifications Tank Cars, appendix E paragraph 10.2.1	Thermal protection system in accordance with § 179.18	In trains with DP or EOT devices

The DOT specification 111 tank car is not appropriate for the transportation of highly flammable liquids such as Bakken crude oil. Washington state supports the adoption of the PHMSA and FRA-designed DOT specification 117 tank car (i.e., Option 1). The additional wall thickness, enhanced braking system and roll-over protection afforded by this option is necessary to better safeguard the public as more crude oil is being transported by rail. In addition, Washington state requests that those companies that invested in the AAR 2014-designed car before the adoption of this rule, which is similar in most ways to the PHMSA and FRA model, should not be penalized for improving the safety of the tank cars, and should be allowed to utilize the cars for their full economic lifespan.

Washington state has additional concerns regarding the impact on railroad track of the increased weight of the DOT specification 117 tank car, the increased traffic and the number of cars in unit trains. This additional risk to public safety and the environment by HHFTs warrants an increased inspection frequency on rail corridors that will be used for HHFTs. Washington state suggests the inspection frequency should be "twice weekly with at least one calendar day interval between inspections."

VII. DOT Specification 111 Tank Car Phase Out

The NPRM proposes to require the use of the new DOT specification 117 tank car and calls for the phase out of the DOT specification 111, accordingly. The DOT 111 will be allowed to be repurposed, retrofitted or retired according to a proposed timeline set forth in the NPRM. The phase out of DOT specification 111 tank cars for HHFTs is necessary and Washington state supports the decision to move to a more robust tank car design.

However, not all tank cars that fall under DOT specification 111 are the same. Washington state requests that DOT specification 111 tank cars that meet the AAR CPC 1232 standards and were built after October 1, 2011, be allowed to continue in service for their economic life, except for the transportation of Packing Group I materials past October 1, 2016. Further, Washington state recommends that the proposed timeline for phasing out DOT 111 tank cars should be expedited for Packing Group I and II materials by a year, with the result that DOT 111 tank cars, including those complying with CPC 1232 standards, should not be used to transport Packing Group I materials after October 1, 2016. Similarly, Packing Group II materials should not be transported in DOT 111 tank cars, excluding those complying with CPC 1232 standards, after October 1, 2017. Washington state's proposal maintains the focus on public safety, which should be paramount in the decision on this rule.

Washington state recommended timeline for discontinued use of DOT Specification 111 tank cars in HHFT service	
<i>Packing Group</i>	<i>DOT 111 Not Authorized After</i>
I (including Bakken)	October 1, 2016
II	October 1, 2017 (excluding CPC 1232)
III	October 1, 2020 (excluding CPC 1232)

Due to uncertainties regarding adequate characterization of crude oil properties such as corrosivity, Washington state recommends that all existing tank cars more than 10 years old have a thorough tank shell thickness survey to ensure the tank is suitable for Packing Group II and III Class 3 liquids. Any tank that shows significant signs of corrosion should be taken out of crude, ethanol, and any other Packing Group I or II service immediately.

VIII. Conclusion

Washington state encourages the USDOT to adopt swiftly rules in this proceeding that will protect the safety of the citizens of Washington and other states and the significant natural and economic resources and communities in Washington. The number of trains carrying large amounts of crude oil into and through the state are increasing dramatically and the USDOT must continue its recent efforts to increase the safety and transparency of crude oil transportation by rail. Washington state strongly support the direction of the NPRM on enhanced tank car standards and operational controls for high-hazard flammable trains and encourage the USDOT not to reduce the stringency of regulations for such trains.

Sincerely,



Steven V. King, UTC Executive Director
and Secretary



Lynn Peterson, WSDOT Secretary



Maia D. Bellon, Ecology Director



Robert Ezelle, EMD Director