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Docket Operations Facility (M-30)
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE
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Via www.regulations.gov

Re: Hazardous Materials: The State of Washington Crude Oil by Rail –
Vapor Pressure Requirements -- Docket PHMSA-2019-0149; PDA-40(R)

Dear Mr. Roberti:

The American Fuel & Petrochemical Manufacturers (AFPM) writes in support of North Dakota and Montana's application (the "Application") for a determination as to whether the Federal Hazardous Materials Transportation Act ("HMTA") preempts the State of Washington's rules relating to the volatility of crude oil received in the state.¹

I. Introduction and Summary

AFPM is a national trade association representing virtually all U.S. refining and petrochemical manufacturing capacity. AFPM's member companies provide jobs, directly and indirectly, to over four million Americans, contribute to our economic and national security, and enable the production of thousands of vital products used by families and businesses throughout the United States.

AFPM supports North Dakota and Montana's Application for preemption determination regarding Washington's crude oil vapor pressure law (the "Washington Law").² The Washington Law essentially prohibits the loading or unloading of crude oil into or from a rail tank car, unless the crude oil has a vapor pressure lower than nine pounds per square inch ("psi"). The Washington Law is nothing more than a thinly veiled attempt to prevent Bakken crude oil from being unloaded at Washington's refineries. The Washington Law is an obstacle to

¹ See Hazardous Materials Transportation Act, 49 U.S.C. §§ 5101–5127.

² See Washington State Engrossed Substitute Senate Bill 5579, "Crude Oil by Rail – Vapor Pressure," <http://lawfilesexternal.wa.gov/biennium/2019-20/Pdf/Bills/Session%20Laws/Senate/5579-S.SL.pdf#page=1>.



the safe transportation of hazardous materials and erodes the regulatory uniformity guaranteed under the HMTA.³

AFPM supports PHMSA finding that the HMTA preempts the Washington Law because the law is an obstacle to uniform federal hazardous materials law and is not substantively the same as existing federal regulations. The Washington Law creates a significant obstacle to the HMTA’s purposes by diverting and delaying the transportation of Bakken crude oil. Additionally, the Washington Law regulates the classification and handling of petroleum crude oil, two areas covered by the heightened preemption standards of 49 U.S.C. § 5125(b)(1) which leave almost no room for non-federal regulation. Finally, the Washington Law relies on bad science and pretextual reasoning meant to prohibit the refinement of Bakken crude within Washington state.⁴ In fact, recently released federal research on the physical, chemical, and combustion characteristics of crude oils with varying vapor pressures further bolsters this point as United States Department of Energy (“DOE”) and United States Department of Transportation

³ Note early drafts of SB5579 frequently and *solely* referenced “Bakken” crude oil—not any other types of crude oil—and included a storage prohibition only for Bakken crude oil. S. 5579, 66th Leg., 2019 Reg. Sess. § 1 (Wash. 2019) (“The legislature finds that **Bakken crude oils** have variable chemical compositions and that organic materials from oil and gas production at wellheads are not sufficiently separated or conditioned, increasing the volatility of the crude oil. **Bakken crude oil** is typically more volatile than other crude oil, increasing the flammability of the oil and the potential for far greater harm to the public in the event of a derailment. Since 2013 there have been at least fourteen events involving derailments of **Bakken crude** in the United States and Canada involving **Bakken crude**. . . . Volatility limits are necessary to ensure that **Bakken crude oil** is packaged and handled safely and securely during transportation. Volatility of crude oil limits are also necessary to provide effective communication to transportation workers and emergency responders of the **Bakken crude oil** being transported. Further, volatility limits are essential in minimizing the consequences of an accident or incident. The legislature further finds that railroads recognize the additional risks of transporting **Bakken crude oil** by charging a surcharge In the absence of such a nationwide standard, it is necessary for the state to adopt a standard that will reduce the risks to public safety and to the environment in the event of a derailment or other casualty involving one of the many unit trains transporting **Bakken crude oil** across the state. Therefore, it is the intent of this act to require facilities offloading or loading crude oil from a rail tank car to ensure that the oil meets specific vapor pressure standards. This will have the effect of requiring the owner of the oil to condition it to meet the standard prior to shipment from the **Bakken region**” (emphasis added)), <http://lawfilesexext.leg.wa.gov/biennium/2019-20/Pdf/Bills/Senate%20Bills/5579.pdf#page=1>; *id.* § 2(2) (“A facility may not store crude oil produced from the **Bakken region** unless the oil has a vapor pressure of less than nine pounds per square inch.”) (emphasis added). Sponsors and supporters of the bill time and time again cited speculative derailment fears in support of the bill’s vapor pressure limit on Bakken crude oil. See pages 7-9 and accompanying footnotes of North Dakota and Montana’s Application for Preemption. While the storage prohibition and references to Bakken crude were excised from the final bill, the targeting of Bakken crude oil remains, since the substantive provision fulfilling that purpose—the vapor pressure limit—was left unaltered.

⁴ Other federal and state constitutional infirmities surrounding the Washington Law, such as conflicts with the dormant commerce clause, are beyond the scope these comments.



(“DOT”) found that there is no support for “creating a distinction for crude oils based on vapor pressure with regards to combustion events.”⁵

To comply with the Washington Law’s crude-by-rail vapor pressure limitations, Bakken producers must either (1) pretreat the crude oil before loading it into the tank cars, an expensive and inefficient process that requires additional movements of hazardous materials; (2) select an alternate mode of transportation, such as trucking; (3) transport the crude oil from North Dakota or Montana to other facilities outside Washington state, where it can then be transloaded onto another transportation mode before delivery into Washington state; or (4) export the crude oil to avoid dealing with Washington state altogether. All of these scenarios increase the time and distance needed to transport hazardous materials and therefore undermine hazardous materials transportation safety. North Dakota and Montana are rightly concerned, since the Washington Law threatens their interests in bringing Bakken crude oil to market. AFPM fully supports the arguments presented by North Dakota and Montana in their Application and provides additional data and rationales that further support their Application.

II. The Washington Law is an Obstacle to Compliance with the HMTA.

The HMTA includes several preemption standards. Under the HMTA, a state law, regulation, requirement, or order is preempted if the law is an obstacle to accomplishing and carrying out the requirements of the HMTA.⁶ The Washington Law runs afoul of this preemption standard because compliance with the law results in diversion and delay of hazardous materials in transportation and therefore undermines safety, which is an obstacle to “accomplishing and carrying out” the purposes of the HMTA.

The preemption provision in HMTA § 5125(a) codifies the Supreme Court’s obstacle test, under which reviewing courts determine whether the law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”⁷ Simply put, “the purpose of Congress is the ultimate touchstone in every pre-emption case.”⁸ If a state law “interferes with the methods by which the federal statute was designed to reach” its goal, it will be preempted.⁹ “[T]he case for preemption is particularly strong where, as here [in rail

⁵ See Luketa, Anay, Blanchat, Thomas K., Lord, David, Hogge, Joseph, Cruz-Cabrera, Alvaro Augusto, & Allen, Ray, “Pool Fire and Fireball Experiments in Support of the US DOE/DOT/TC Crude Oil Characterization Research Study,” <https://www.osti.gov/biblio/1557808> (hereinafter the “Sandia Study”), last accessed September 19, 2019.

⁶ 49 U.S.C. § 5125(a).

⁷ *Hillsborough Cty. v. Automated Medic. Labs.*, 471 U.S. 707, 713 (1985) (quoting *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941)).

⁸ *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 484 (1996).

⁹ *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 494 (1987).



transportation], ‘the State regulates in an area where there has been a history of significant federal presence.’”¹⁰

The HMTA’s legislative history helps illuminate Congress’s motivations for enacting the law: uniformity and safety. As noted by the Third Circuit:

In the early 1970s, those who transported hazardous materials through interstate commerce were forced to navigate “a patchwork of sometimes conflicting state regulations.” *Jersey Cent. [Power & Light Co. v. Twp. of Lacey]*, 772 F.2d [1103,] 1112-13 [(3d Cir. 1985)]. The prevailing regulatory regime was fragmented and, to some, incoherent. S. Rep. No. 93-1192, at 8 (1974) (explaining that “the fragmentation of regulatory power among the agencies dealing with the different modes of transportation blocks a coherent approach to the problem”). At the same time, the quantity of hazardous material moving across state lines was on the increase. S. Rep. No. 93-1192, at 7 (“The amount of hazardous material being transported in the United States increases every year.”). Predictably, accidents involving such materials were concomitantly on the rise. S. Rep. No. 93-1192, at 7 (“The increasing volume of dangerous products in commerce has brought with it an increasing number of accidents.”). To address these concerns, the Secretary of Transportation requested greater oversight capability. *See* S. Rep. No. 93-1192, at 7.¹¹

In response, Congress enacted the HMTA in 1975. With it, Congress intended to create a uniform federal program for the safe transportation of hazardous materials. But this uniformity did not come all at once. As noted by the Third Circuit,

[W]hen it was initially enacted, the HMTA preemption clause contained only a general inconsistency standard—state or local “requirement[s]” were preempted if “inconsistent” with federal regulations. Transportation Safety Act of 1974, Pub. L. 93-633, § 112, 88 Stat. 2156. This, thought the Senate Committee on Commerce, would serve “to preclude a multiplicity of State and local regulations and the potential for varying as well as conflicting regulations in the area of hazardous materials transportation.” S. Rep. No. 93-1192, at 37. The Committee was mistaken. Non-federal requirements continued to proliferate over the next two decades, leading Congress to overhaul—and significantly expand—the HMTA’s preemptive scope.¹²

In 1990, Congress reexamined hazardous material transportation and enacted the Hazardous Materials Transportation Uniform Safety Act (“HMTUSA”), 49 U.S.C. App. §§

¹⁰ *CSX Transp., Inc. v. Williams*, 406 F.3d 667, 673 (D.C. Cir. 2005) (citing *United States v. Locke*, 529 U.S. 89, 107 (2000) (concluding Congress had legislated in international maritime commerce “from the earliest days of the Republic”).

¹¹ *Roth v. Norfalco*, 651 F.3d 367, 370 (3d Cir. 2011).

¹² *Id.* at 378 (3rd Cir. 2011).



1801-1819, substantially amending the HMTA to provide strict preemption standards.¹³ In doing so, Congress gave a number of justifications, three of which are relevant here:

[M]any States and localities have enacted laws and regulations which vary from Federal laws and regulations pertaining to the transportation of hazardous materials, thereby creating the potential for unreasonable hazards in other jurisdictions and confounding shippers and carriers which attempt to comply with multiple and conflicting registration, permitting, routing, notification, and other regulatory requirements . . .

because of the potential risks to life, property, and the environment posed by unintentional releases of hazardous materials, consistency in laws and regulations governing the transportation of hazardous materials is necessary and desirable . . .

in order to achieve greater uniformity and to promote the public health, welfare, and safety at all levels, Federal standards for regulating the transportation of hazardous materials in intrastate, interstate, and foreign commerce are necessary and desirable[.]¹⁴

Following the HMTUSA's enactment, state and local laws must not only be consistent with the HMTA, but they must also not interfere with the goals and purposes that motivated the enactment of the HMTA.¹⁵

Courts have applied this standard scrupulously in light of Congress's paramount goals of uniformity and safety that animated the passage of this more exacting preemption standard.¹⁶ For example, in *Chlorine Institute, Inc. v. California Highway Patrol*, the Court invalidated a California law requiring that shipments of chemicals such as chlorine and oleum be escorted by highway patrol vehicles to the point of unloading, while also imposing various requirements for those vehicles.¹⁷ The Court acknowledged that "state regulations pertaining to an area already regulated under the [hazardous materials regulations] pose an obstacle to the goal of uniform national standards for the transportation of hazardous materials."¹⁸ It also held that because the state's regulations "significantly exceed the federal requirements for the shipment of chemicals... 'they create a separate regulatory regime for these activities.'"¹⁹ Where a second

¹³ See *Chlorine Inst. Inc. v. Cal. Highway Patrol*, 29 F.3d 495, 497 (9th Cir. 1994).

¹⁴ Hazardous Materials Transportation Uniform Safety Act of 1990, Pub L. No. 101-615, § 2, 104 Stat. 3244, 3245 (1990).

¹⁵ See 49 U.S.C. § 5125.

¹⁶ See *Chlorine Inst.*, 29 F.3d at 496 ("We therefore must determine if the CHP regulations pose an obstacle to the accomplishment of the HMTUSA's goal of uniform national regulation. If they do create such an obstacle, they are preempted under the Act."); *Colorado Pub. Util. Comm'n v. Harmon*, 951 F.2d 1571, 1580 (10th Cir. 1991) ("In enacting new preemption standards, Congress expressly contemplated that the Secretary would employ his powers to achieve safety by enhancing uniformity in the regulation of hazardous materials transportation."); *CSX Transp. v. Pub. Util. Comm'n*, 901 F.2d at 501 ("We find it clear from [H.R.Rep. No. 1083, 93d Cong., 2d Sess.], and the legislative history behind it, that the purpose of the HMTA was to consolidate regulation of hazardous material transportation at the Secretarial level..."); *Jersey Cent.*, 772 F.2d at 1110.

¹⁷ 29 F.3d at 497

¹⁸ *Id.* (citing *S. Pac. Transp. Co. v. Pub. Serv. Comm'n of Nevada*, 909 F.2d 352, 358 (9th Cir. 1990)).

¹⁹ *Id.* at 497-98.



regulatory regime existed, uniformity was undermined to the point of violating the HMTA’s preemption provisions.

The Washington Law plainly exceeds the federal requirements for the shipment of crude oil. Nowhere do the HMTA or Hazardous Materials Regulation (“HMRs”) impose vapor pressure standards for crude oil, just as they did not require that highway patrol vehicles escort chemicals to the unloading point as in *Chlorine Institute*. With the enactment of the Washington Law, two regulatory regimes exist, with the Washington regime being stricter than the federal regime. Tank cars filled with properly classified hazardous materials that comply with the federal standards will be prevented from unloading in Washington, which cannot possibly comport with the HMTA’s uniformity goals.

There are limited options for shippers and consignees of hazardous materials to comply with the Washington Law and each of those options increase the time and distance over which the hazardous materials must travel, and therefore increase the statistical risk of hazardous material transportation incidents. We discuss each of these alternatives below.

A. Pretreatment of Bakken Crude

Most Bakken crude oil transported into Washington state has a Reid Vapor Pressure (“RVP”) higher than 9 psi.²⁰ Pretreatment of higher vapor pressure crude oil to lower its vapor pressure requires the removal of liquid petroleum gases and other “light-ends” contained in crude oil. This may be accomplished at a “topping refinery.” Unfortunately, there are no topping refineries that are close to the Bakken reserves.²¹ As such, pretreatment would require two separate movements of hazardous materials: the first from the well head to the topping refinery and the second from the topping refinery to the Washington-based refineries. These movements increase the time in transit and rail miles traveled, with the resulting concomitant increase in the risk of a transportation incident.

Moreover, as the pretreatment process removes flammable gases and natural gas liquids from crude oil, these component hazardous materials also will need to be transported.²²

²⁰ See generally American Fuel & Petrochemical Manufacturers, A Survey of Bakken Crude Oil Characteristics Assembled for the U.S. Department of Transportation (May 14, 2014), <https://www.afpm.org/uploadedFiles/Content/documents/Survey-of-Crude-Oil-Characteristics.pdf>.

²¹ See <https://www.eia.gov/state/?sid=ND>. Given North Dakota has only two active refineries representing 90,000 bpd capacity and these refineries are operating at utilization rates in the mid-90% range, AFPM believes that pretreatment would require significant diversion, if feasible at all.

²² AFPM has previously commented on the substantial costs related to pretreatment and the lack of safety benefits associated with vapor pressure regulations. See AFPM comments on Docket No. DOT-OST-2017-0069, “Notification of Regulatory Review” pages 11-15 submitted December 1, 2017, https://www.afpm.org/uploadedFiles/Content/Policy_Positions/Agency_Comments/AFPM_Comments_DOT_Reg_Review_12.1.17.pdf; AFPM comments on Docket No. PHMSA-2016-0077, “Advance Notice of Proposed Rulemaking, Hazardous Materials: Volatility of Unrefined Petroleum Products and Class 3 Materials” https://www.afpm.org/uploadedFiles/Content/Policy_Positions/Agency_Comments/AFPM%20Comments%20on%20PHMSA%20ANPRM%20for%20CBR%20Volatility_19%20May%202017.pdf.



In addition, pretreating Bakken crude before sending it into Washington state is economically infeasible and likely would result in a modal shift or crude substitution, discussed below.

B. Alternate Modes of Transportation and Rerouting

As mentioned in the Application, rail shipments of crude oil above the 9.0 psi threshold will be prohibited from being loaded or unloaded within Washington’s jurisdiction. Thus, without pretreatment as a viable option, the Washington Law would require utilizing alternative modes of transportation as described in the Application. Using these alternative means of transportation will add significant delay. These alternative means of transportation will also require that Bakken crude be transported for longer distances, and loaded and offloaded (*i.e.*, handled) more times than if the material traveled from North Dakota or Montana straight to the refineries in Washington state. This creates a convoluted compliance regime whereby consignees are incentivized to reroute their rail shipments to delivery points outside Washington where they will then be transloaded onto a barge or truck, resulting in increased handling, additional mileage, and unnecessary delays. For example, if a Washington-based refinery cannot receive Bakken crude directly by rail, it may, depending upon market conditions, consider routing that crude from North Dakota to the Gulf Coast (*e.g.*, Houston or Galveston), transloading the product onto a vessel, sending it through the Panama Canal and up to the refinery dock. This would increase the rail portion of the trip from 1,492 miles (Epping, ND to Cherry Point, WA) to 1,837 miles (Epping, ND to Houston, TX),²³ necessitate additional handling (*i.e.*, transloading) of hazardous materials, add the risk associated with the marine transportation leg of the trip, and would result in a significant amount of additional time that the crude oil is in transportation. As such, the Washington Law stands as an obstacle to the primary purpose of the HMTA—reducing the risk of a hazardous materials transportation incident. PHMSA has consistently held that increased mileage, transit time, and delay conflicts with the HMRs, which state that “[a]ll shipments of hazardous materials must be transported without unnecessary delay, from and including the time of commencement of the loading of the hazardous material until its final unloading at destination.”²⁴

²³ See PC Miler Rail.

²⁴ 49 C.F.R. § 177.800(d); see Preemption Determination No. PD-22(R); New Mexico Requirements for the Transportation of Liquefied Petroleum Gas, 67 Fed. Reg. 59,396, 59,400 (Sept. 20, 2002) (“The State cannot require a permit or inspection for trucks that are not based within the local jurisdiction if the truck must interrupt its transportation of hazardous materials for several hours in order for an inspection to be conducted.”); Preemption Determination No. PD-4(R) California Requirements Applicable to Cargo Tanks Transporting Flammable and Combustible Liquids, 58 Fed. Reg. 48,933, 48,941 (Sept. 20, 1993) (holding that even delays of hours are “unnecessary, because it substantially increases the time [hazardous materials] are in transportation, increasing exposure to the risks of hazardous materials.”); State of Rhode Island Rules and Regulations Governing the Transportation of Liquefied Natural Gas and Propane Gas Intended To Be Used By a Public Utility; Inconsistency Ruling (IR-2), 44 Fed. Reg. 75,566, 75,571 (Dec. 20, 1979) (“Delay is incongruous with safe transportation and safe transportation is “[t]he manifest purpose of the HMTA.”).



Another option potentially available to Washington refineries would be to transport crude oil by truck. Under this alternative scenario, a hypothetical refinery that utilizes 65,000 barrels of Bakken crude each day, would require approximately 430 truck shipments to replace the crude oil it currently receives by rail. In addition to the risk profile associated with this modal shift, significant delays would result, as refineries do not have the infrastructure necessary to stage and offload large numbers of tank trucks each day.

In several instances, PHMSA has invalidated laws that have delayed the process of getting hazardous materials to their destination. In PD-28, Smithtown, New York mandated that all trucks delivering liquefied petroleum gas in the town obtain permits and certificates of fitness from the town based on passing a full safety inspection of the vehicle and approval of the Fire Marshal.²⁵ Appointments for inspection were made one month in advance and no more than four trucks could be scheduled within a 30-minute time frame.²⁶ Inspections usually took 15 to 20 minutes for bulk carriers.²⁷

Despite this rather short delay, PHMSA invalidated the local law as applied to out-of-state carriers, stating that “[t]he impracticability of scheduling an inspection in advance of knowing whether a particular truck will be needed to make a delivery within the inspecting jurisdiction creates unnecessary delay - not the time that the inspection actually takes to be conducted.”²⁸ Furthermore, PHMSA held that a state’s annual inspection requirement, as applied to vehicles operating within the state exclusively, is “presumptively valid” because “it would not create the potential for delays associated with entering the State or *being rerouted around the State.*”²⁹ However, the potential for rerouting vehicles and the associated delays was enough to invalidate the permitting scheme as applied to out-of-state vehicles.

Here, as in PD-28 and PD-37, there is huge potential for delay as producers of Bakken crude are forced to divert petroleum crude to avoid the prohibited unloading at a facility located in Washington state. The *potential* for delay was enough to invalidate state regulations as applied to out-of-state carriers in both of those instances. But here, delay is inevitable. Washington has essentially given Bakken producers two options: reroute their crude oil to facilities outside of the state where it can then be sent to Washington by barge or send it elsewhere, likely the gulf coast.³⁰ Not only would this require more time spent in transit, but it

²⁵ See Preemption Determination No. PD-28(R); Town of Smithtown, New York Ordinance on Transportation of Liquefied Petroleum Gas, 67 Fed. Reg. 15,276, 15,277-78 (Mar. 29, 2002).

²⁶ See *id.* at 15,278.

²⁷ See *id.*

²⁸ *Id.* at 15,279.

²⁹ Preemption Determination No. PD-37(R); Hazardous Materials: New York City Permit Requirements for Transportation of Certain Hazardous Materials, 82 Fed. Reg. 31,394 (July 6, 2017) (invalidating a New York City permitting program as applied to out of state vehicles on the same basis) (emphasis added).

³⁰ Note if Bakken crude oil producers can no longer ship to Washington by rail, they may choose to export their product. This would entail rerouting the hazardous material to either the east coast or gulf coast and then transloading it to a vessel for shipment overseas. If Bakken crude is no longer available to the Washington refineries, those refineries may have to import oil from overseas and unload it at a marine terminal. The circular



entails more distance travelled, a concern that HMTA sought to remedy by requiring the uniform regulation of hazardous materials transportation.

AFPM represents the oil refineries in Washington state that are directly impacted by the Washington Law. These refineries have begun investigating potential alternatives to receiving Bakken crude by rail. Each of these alternatives result in an increase in the mileage and time hazardous materials are in transportation. In addition to the risk associated with the changes to rail routes, additional risk would be created by transloading and barge or truck shipments. Washington has not quantified the potential risks associated with increased time, increased distance, and different modes of transport, indicating only a superficial interest in the actual safety implications of its preempted law and revealing the true purpose and motive: to restrict Bakken and other types of crude oil from being brought to market.

III. Washington’s Regulations are Not Substantively the Same as the HMTA and the HMRs.

The HMTA also preempts State laws or regulations that are not “substantively the same” as the HMTA and the HMRs in five “covered subjects” of § 5125(b).³¹ If the state law or regulation “does not conform in every significant respect to the federal regulatory scheme” as it relates to these covered subjects, it is preempted.³² Plainly, if a regulation imposes “different requirements than the federal regulation, [it] is not ‘substantively the same.’”³³ As the Third Circuit observed, § 5125(b) is “a robust preemption provision that leaves little, if any, room for non-federal regulation.”³⁴

nature of North Dakota or Montana exporting their crude overseas and then Washington state refineries replacing that with crude imported into Washington state from overseas would represent an unnecessary direct increase in hazardous materials transportation.

³¹ 49 U.S.C. § 5125(b). These five covered subjects, as listed in § 5125(b)(1) are as follows: (A) the designation, description, and classification of hazardous material; (B) the packing, repacking, handling, labeling, marking, and placarding of hazardous material; (C) the preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents; (D) the written notification, recording, and reporting of the unintentional release in transportation of hazardous material and other written hazardous materials transportation incident reporting involving State or local emergency responders in the initial response to the incident; (E) the designing, manufacturing, fabricating, inspecting, marking, maintaining, reconditioning, repairing, or testing a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

³² *Roth*, 651 F.3d at 377 (quoting 49 C.F.R. § 107.202(d)); see *Chlorine Inst.*, 29 F.3d at 496 (concluding that state regulation was “not substantively the same as” the relevant HMR requirement when it imposed a condition not required by federal regulation).

³³ *Harmon*, 952 F.2d at 1578.

³⁴ *Roth*, 651 F.3d at 379.



PHMSA has stated the standard even more clearly. For the covered subjects of §5125(b), “uniformity is paramount, and no material deviation is permitted.”³⁵ Likewise, PHMSA has held that for a regulation to be “substantively the same” as a federal regulation, the only allowable changes are those that are “editorial” or “de minimis.”³⁶

Congress addressed the five covered subjects during its deliberation on amendments to the HMTA. The statutory text and legislative history confirm Congress’s clear purpose to “draw the Federal Government’s now-fragmented regulatory and enforcement power over the movement of hazardous materials in commerce into one consolidated and coordinated effort under the direction of the Secretary of Transportation.”³⁷ As stated on the House floor:

Consistency in regulations pertaining to [packing, repacking, handling, labeling, marking and placarding] are [sic] needed to promote safety at all stages of hazardous materials transportation. Conflicting requirements for any of these subjects will confuse all who come into contact with hazardous materials, including shippers, carriers, and other handlers of such materials in transit.³⁸

The concern persisted, and in 2005 Congress readopted the HMTA’s strict preemption standards for these five covered subjects.³⁹

Courts have taken a strict approach to HMTA preemption involving these covered subjects. For example, in *Southern Pacific Transportation Co. v. Public Service Commission of Nevada*, the Ninth Circuit invalidated Nevada’s regulations requiring carriers of hazardous materials to obtain annual state permits before loading, unloading, shipping, and storage of their materials.⁴⁰ To obtain a permit, carriers had to submit numerous details related to loading and unloading the hazardous materials, such as a map of the proposed site for loading and unloading, a report identifying “each switch, siding, spur or branch of track at the site,” and an outline of the procedures to be used in the loading and unloading of the material.⁴¹ The court, enumerating the already existing regulations as they related to loading and unloading, stated that the Nevada

³⁵ Preemption Determination No. PD-7(R) Maryland Certification Requirements for Transporters of Oil or Controlled Hazardous Substances, 59 Fed. Reg. 28,913 (June 3, 1994); Preemption Determination No. PD-6(R), Michigan Marking Requirements for Vehicles Transporting Hazardous and Liquid Industrial Wastes, 59 Fed. Reg. 6,186 (Feb. 9, 1994) (“In prescribing the ‘substantively the same’ standard, Congress has concluded as a matter of law that in the area of covered subjects, uniformity is paramount and Federal regulation shall prevail.”).

³⁶ PD-28(R), 67 Fed. Reg. at 15,2777.

³⁷ S. Rep. 93-1192, at 1; H.R. Rep. No. 444, 101st Cong., 2d Sess. at 34.

³⁸ H.R. Rep. No. 444, 101st Cong., 2d Sess. at 34.

³⁹ See *Roth*, 651 F.3d at 371; Hazardous Materials Transportation Safety and Security Reauthorization Act of 2005, Pub. L. No. 109-59, § 7101, 119 Stat. 1144, 1891 (2005).

⁴⁰ 909 F.2d at 354.

⁴¹ *Id.*



regulations, by adding additional requirements, created a “separate regulatory regime” that confused the uniform, national regulatory scheme.⁴²

Hazardous materials classification and hazardous materials handling restrictions are also listed as “covered subjects” that leave no room for state regulation. The Washington law imposes crude oil volatility standards that affect both the classification and handling of petroleum crude oil, making it subject to heightened preemption standards as both are covered subjects under § 5125(b)(1).⁴³ Only additional state requirements that strictly conform with the “substantively the same” standard will be upheld. This burden is substantial, as the Ninth Circuit has recognized that “the extent of federal regulation in the area of transportation, loading, unloading and storage of hazardous materials is comprehensive.”⁴⁴

But the Washington vapor pressure standard is not substantively the same as the HMRs’ requirements. The HMRs classify crude oil as a Class 3 flammable liquid, and specify the labeling, packing, handling, and other requirements that apply to its transportation.⁴⁵ Where transportation is forbidden because shipment would be too dangerous and “may not be offered for transportation or transported,” column 3 of the Hazardous Materials Table indicates the material is “forbidden.”⁴⁶ The Washington Law effectively reclassifies crude oil with a vapor pressure greater than 9 psi as forbidden, yet the HMRs permit the transportation of such crude oil and the HMRs do not impose different requirements on crude oil based on its vapor pressure, even though PHMSA clearly could have made such classifications. Therefore, the Washington Law, which imposes different classifications on crude oil, is preempted because it is not substantively the same as the HMRs’ classification.

Similarly, the HMRs address the handling of crude oil in transportation.⁴⁷ Nowhere do these federal regulations restrict handling such as loading or unloading based on the crude oil’s vapor pressure.⁴⁸ Likewise, the HMRs’ instructions for unloading hazardous materials—a list of specific, detailed requirements covering nearly every aspect of the unloading process—are equally devoid of vapor pressure standards.⁴⁹ Therefore, the Washington Law goes well beyond the requirements set in the HMRs by imposing different handling standards than those prescribed by the HMTA or HMRs. To reiterate, if a regulation imposes “different requirements than the federal regulation, [it] is not ‘substantively the same.’”⁵⁰

⁴² *Id.* at 358. *See also Roth*, 651 F.3d 367 (rejecting a claim that a tank car manufacturer should have incorporated a different pressure relief valve in its tank car design).

⁴³ *Roth*, 651 F.3d at 375; *see* Engrossed Substitute Senate Bill 5579, 66th Leg., 2019 Reg. Sess. (Wash. 2019).

⁴⁴ *S. Pacific*, 909 F.2d at 257 (9th Cir. 1990) (quoting *Consolidated Rail Corp. v. Bayonne*, 724 F. Supp. 320, 330 (D. N.J. 1989)).

⁴⁵ 49 C.F.R. § 172.101, Hazardous Materials Table.

⁴⁶ 49 C.F.R. § 172.101(d)(1).

⁴⁷ *See* 49 U.S.C. § 174.300.

⁴⁸ *See id.*

⁴⁹ *See* 49 U.S.C. § 174.67.

⁵⁰ *Harmon*, 952 F.2d at 1578.



Establishing classification and handling requirements for crude oil based on its vapor pressure is the exclusive domain of PHMSA. Indeed, prior to 1990, 49 C.F.R. § 173.119 distinguished between flammable liquids based on flash point, boiling point, and *vapor pressure*. § 173.119(d) through (f) set standards for shipments of flammable liquids based on the vapor pressure at 100°F.⁵¹ Packaging requirements differed based on whether the flammable liquids were (a) at or below 16psi; (b) above 16 and no higher than 27 psi; or (c) above 27 but below 40 psi.⁵² Flammable liquids in the latter two categories each had specific tank car requirements, with the third category only authorized for transport in certain pressure cars.⁵³ But today, the HMTA and HMRs prescribe different means to distinguish between flammable liquids regarding their classification, handling, and other transportation requirements. That decision should not be upset by the unilateral actions of a state.

The Washington Law, like the Nevada permitting scheme in *Southern Pacific*, establishes a secondary regulatory regime that bifurcates compliance standards – once compliance with federal requirements is achieved, transporters of Bakken crude then face the task of complying with the heightened Washington Law requirements. These requirements are by no means “de minimis” or “editorial” because they require that Bakken crude producers engage in costly and inefficient pretreatment processes or rerouting schemes to comply.⁵⁴ The Washington Law “create[s] a separate regulatory regime for [loading and unloading Bakken crude oil], fostering confusion and frustrating Congress’s goal of developing a uniform, national scheme of regulation.”⁵⁵ The “patchwork” of conflicting jurisdictional mandates feared by Congress will become a reality if the Washington Law is allowed to stand.⁵⁶

IV. The Washington Law is a De Facto Prohibition of Bakken Crude Oil.

Two points demonstrate conclusively that Washington’s law is not in fact designed to reduce the number of combustion events within its borders and increase safety, as is claimed, but is instead a backdoor attempt to prohibit Bakken crude from being refined within the state.

First, that this law is meant to prohibit Bakken crude from entering Washington refineries or marine terminals for export is evident by the simple fact that the law prohibits *unloading* crude oil with an RVP above 9.0 psi within the state—restrictions that will not prevent derailments of crude oil trains or mitigate the damage that such derailments cause. Serious,

⁵¹ See 49 C.F.R. § 173.119(c) (1989) (“Flammable liquids for which other special packing requirements are not prescribed in this part, must be shipped, depending upon their *Reid vapor pressures* as described in paragraphs (d) to (i) of this section.” (emphasis added)).

⁵² See 49 C.F.R. § 173.119(d)-(f) (1989).

⁵³ See 49 C.F.R. § 173.119(d)-(f) (1989); see also Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 79 Fed. Reg. 45,015, 45,026 (Sept. 30, 2014).

⁵⁴ PD-28(R), 67 Fed. Reg. at 15,277.

⁵⁵ *Chlorine Inst.*, 29 F.3d at 498 (quoting *S. Pacific*, 909 F.2d at 358)).

⁵⁶ *Roth*, 651 F.3d at 377.



large-scale harm related to the transportation of hazardous materials by rail typically does not occur during the loading or unloading phase of the materials' journey. Indeed, the factual predicate underlying the Washington Law was to address multicar derailments. That the Washington Law only regulates unloading and exempts *transportation* of high-vapor pressure crude through its jurisdiction shows the true motivation of this law is to prohibit the use of Bakken crude in Washington refineries.

Second, the Washington Law singles out Bakken crude for regulation while ignoring that there are ample Class 3 liquids with low vapor pressures that present similar ignition risks.⁵⁷ In some cases, the vapor pressure of Class 3 flammable liquids is very low (*e.g.*, 2.0 psi), yet, like every other flammable liquid, they will burn. That other commonly used flammable liquids with lower vapor pressures present similar ignition risks, yet are unregulated by the Washington Law, further suggests that vapor pressure is a red herring.

Because the Washington Law is designed to prohibit the rail transportation of Bakken crude oil, the law will likely affect shipping routes and modes, as we've explained above, which would lead to lengthened transportation routes, duration, and delays. This decreases safety and increases the risk of incident *during transportation*, which is squarely within the domain of the HMRs as a transportation function.⁵⁸ Furthermore, the HMRs apply to pre-transportation functions, which include “[d]etermining the hazard class of a hazardous material,”⁵⁹ yet the Washington Law reclassifies crude oil into prohibited and permitted classes for rail transportation by enacting its *de facto* ban on Bakken crude oil. Therefore, the effect of the Washington Law provides multiple grounds for finding that the law must be preempted.

V. The Washington Law is Based on Incorrect Assumptions.

PHMSA has previously confronted the issue of imposing a nationwide vapor pressure standard and has not implemented vapor pressure requirements, which should not be surprising

⁵⁷ American Fuel & Petrochemical Manufacturers, Comment on the Pipeline and Hazardous Materials Safety Administration's Advance Notice of Proposed Rulemaking, “Hazardous Materials: Volatility of Unrefined Petroleum Products and Class 3 Materials” at 3-4 (May 19, 2017), <https://www.regulations.gov/document?D=PHMSA-2016-0077-0071>.

⁵⁸ 49 C.F.R. § 171.1 (“Regulations prescribed in accordance with Federal hazardous materials transportation law shall govern safety aspects, including security, of the transportation of hazardous materials.”); *id.* at § 171.1(c) (“Transportation of a hazardous material in commerce includes the following: (1) Movement. Movement of a hazardous material by rail car.”). Even if the regulation, contrary to fact, did not regulate movement, it regulates loading and unloading incidental to movement of a hazardous material, which is also squarely within the HMRs. 49 C.F.R. § 171.1(2)-(3). While § 171.1(d) excludes “unloading of a hazardous material” from a rail car by the consignee’s personnel after the carrier’s personnel leave, Washington’s law still regulates unloading performed by or in the presence of carrier personnel, which is explicitly included as “[u]nloading incidental to movement” under § 171.1(c)(3), and goes beyond merely regulating unloading because the law prohibits unloading based on the vapor pressure of crude oil, which necessarily regulates the handling of hazardous materials during transportation.

⁵⁹ 49 C.F.R. § 171.1(b)(1).



given the lack of scientific support for a 9.0 psi vapor pressure limit. In 2017, PHMSA published an advance notice of proposed rulemaking soliciting comments on a petition by the New York Attorney General that PHMSA implement an RVP limit of 9.0 psi or less for all crude oil transported by rail, the standard that Washington now seeks to impose within its jurisdiction.⁶⁰ Proponents of the regulatory amendment cited the high vapor pressure of Bakken crude oil, but were unable to establish that its vapor pressure increases the likelihood or severity of crude oil releases during a derailment.⁶¹

Washington erroneously claims that its regulation is necessary to enhance safety; however, its decision to regulate only those trains that load or unload within the state exempts the lion's share of the "problem" it purports to address and is not supported by data or research. On August 23, 2019, the DOE, in coordination with DOT and Transport Canada, released a technical report of recent research on the thermal characteristics of different types of crude oil.⁶² This study performed by Sandia National Laboratories ("Sandia Study") was required by Congress under the Fixing America's Surface Transportation Act or FAST Act and provides a number of findings related to the vapor pressure of crude oil.

While it is well known that the RVP of petroleum crude oil in transportation has no impact on the frequency of derailments, the Sandia Study assessed the consequences of derailments by researching the physical, chemical, and combustion characteristics of crude oils with varying vapor pressures. Specifically, the Sandia Study examined how crude oils with varying vapor pressures behave in pool fires and fireball testing. The study concluded "vapor pressure is not a statistically significant factor" affecting the outcomes of a pool fire or fireball test. Therefore, the results of the Sandia Study do not support "creating a distinction for crude oils based on vapor pressure with regards to combustion events." Put simply, the Sandia Study finds that RVP does not have a statistically significant impact on the consequences of a derailment and that delineating requirements based on the RVP of flammable liquid is not supported by data or research.

It is clear from the Sandia Study that Washington's attempts to regulate the transportation of petroleum crude oil based on its RVP would not enhance safety and therefore does not fulfill its stated purpose. This further supports North Dakota and Montana's claims that the Washington Law stands as an obstacle to the HMTA purposes and is preempted. The Sandia Study also confirms that DOT, specifically PHMSA, does not have the factual predicate to approve New York's petition to regulate the RVP of petroleum crude oil in transportation and

⁶⁰ See Hazardous Materials: Volatility of Unrefined Petroleum Products and Class 3 Materials, 82 Fed. Reg. 5499 (Jan. 18, 2017).

⁶¹ See National Resources Defense Council, Comment Letter on Proposed Rule: Hazardous Materials: Volatility of Unrefined Petroleum Products and Class 3 Materials, at 6-7 (May 19, 2017), <https://www.regulations.gov/document?D=PHMSA-2016-0077-0077>; North Dakota Petroleum Council, Comment Letter at 4.

⁶² See Luketa et al., Pool Fire and Fireball Experiments in Support of the US DOE/DOT/TC Crude Oil Characterization Research Study, Sandia Nat'l Labs. (Aug. 2019), <https://www.osti.gov/servlets/purl/1557808>.



PHMSA should move quickly to deny that petition and withdraw the advance notice of proposed rulemaking related to that petition.⁶³

Numerous other sources suggest that volatility, if relevant at all, is insignificant in increasing the harm that arises from fires involving the transportation of crude by rail. For example, National Transportation Safety Board Chairman Christopher Hart has stated that the amount of product released is the crucial factor in determining the extent of the damage and that “accident investigation experience ... has not indicated that volatility is a significant issue.”⁶⁴ Similarly, a DOE literature review found no link “between crude oil properties and the likelihood or severity of a fire caused by a derailment.”⁶⁵

In fact, there are a number of other Class 3 flammable liquids that Washington is not seeking to regulate that have vapor pressure lower than 9.0 psi and that can lead to severe consequences upon release.⁶⁶ A far superior indicator of the extent of a combustion event’s harm is the flammability of the released substance.⁶⁷ Vapor pressure is, if not wholly irrelevant, insignificant to this determination.

VI. Conclusion

As AFPM has shown, the Washington Law results in the diversion and delay of hazardous materials in transportation and therefore constitutes an obstacle to the HMTA.

Furthermore, the Washington Law creates a unique state-based hazardous materials classification and directly regulates the handling of hazardous materials in transportation in ways that differ from the HMRs. These “covered subjects” leave no room for non-federal regulation except in “editorial” or “de minimis” ways. A law that forces producers to reroute their product through neighboring states or engage in uneconomical pretreatment processes cannot be considered “de minimis” or “editorial” and is therefore preempted.

⁶³ See Docket No. PHMSA-2016-0077, “Hazardous Materials: Volatility of Unrefined Petroleum Products and Class 3 Materials (HM-251D)”, 82 Fed. Reg. 5499, published January 18, 2017, <https://www.federalregister.gov/documents/2017/03/21/2017-05488/hazardous-materials-volatility-of-unrefinedpetroleum-products-and-class-3-materials>.

⁶⁴ *Id.* See also Patrick C. Miller, *NTSB Chairman: Bakken crude isn’t more volatile*, North American Shale (Sept. 30, 2015), <http://northamericanshalemagazine.com/articles/1311/ntsb-chairman-bakken-crude-isnundefinedt-more-volatile>.

⁶⁵ David Lord et al., Literature Survey of Crude Oil Properties Relevant to Handling and Fire Safety in Transport: DOT/DOE Tight Crude Oil Flammability and Transportation Spill Safety Project, Sandia National Laboratories (Mar. 2015), <https://prod-ng.sandia.gov/techlib-noauth/access-control.cgi/2015/151823.pdf>.

⁶⁶ *Id.* at 10-11. Some of these liquids include ethanol, certain isomers of pentane, iso-octane, benzene, toluene, and the xylene isomers.

⁶⁷ See *id.* at 10.



On these bases, AFPM supports North Dakota and Montana's preemption determination Application. AFPM trusts that PHMSA will recognize the Washington Law's lack of conformity with federal law and urges the PHMSA to find the law preempted.

Respectfully submitted,

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