

COMMENT

EXPLODING TRAINS IN THE WAKE OF THE CRUDE-BY-RAIL BOOM: THE DISTRIBUTION OF LIABILITY IN CRUDE-TRAIN DERAILEMENTS

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American crude oil production has reached an all-time high, with hundreds of millions of barrels of crude oil being delivered to market each year. As a consequence, the transportation system has been stressed to the max to meet the crude oil delivery needs of energy producers, with the burden largely being born by the United States rail transportation network. Large volumes of crude oil are carried through the United States by train from production points, such as the Bakken Formation in North Dakota, to refinery locations throughout the country. This market phenomenon has created risks to health and safety from crude-train derailments, which often result in large explosions that cause harm to persons and property.

The threat of crude train derailments has also placed pressure on the legal system to respond and adapt to new safety concerns. Specifically, the dispersive structure of the crude-by-rail industry, which involves the combined efforts of multiple different actors, has caused confusion about the source of liability in the event of derailments. Additionally, the effect of federal preemption of state law causes of action relating to rail safety and hazardous materials transportation has caused confusion about the possibility for plaintiff recovery in the event of injury from a crude train derailment. In part to clarify the uncertain legal terrain for crude-by-rail transportation, the United States Department of Transportation recently enacted a comprehensive suite of regulations to govern all aspects of the crude-by-rail industry, ranging from crude oil labeling and packaging, train speed limits, train braking standards, tank car equipment specifications, and crude oil chemical testing and reporting.

This Comment argues that recently enacted United States Department of Transportation regulations help clarify liability in the event of a crude train derailment by creating and enhancing standards of care for which industry actors must comply. Additionally, this Comment argues that the increased standards of care created by the new United States Department of Transportation regulations modestly increase the chances for plaintiff recovery. Finally, this Comment argues that, despite the increased standards of care created by the new regulations, plaintiffs will continue to face a difficult environment for recovery given the effects of federal preemption of state law causes of action, thus typically limiting recovery to

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instances of negligence per se. This Comment concludes by considering the questions that courts will ultimately be required to answer in an effort to delineate the contours of federal preemption of state law causes of action relating to crude-train derailments.

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INTRODUCTION

On the afternoon of December 30, 2013, a west-bound freight train departed from Fargo, North Dakota en route to its final destination in the Pacific Northwest.¹ Shortly after the freight train passed through the town of Casselton, a hopper car near the middle of the train was jostled loose from the tracks—possibly by a broken axle—and spilled over onto the adjacent tracks of the east-bound line.² Within minutes, an east-bound train carrying over three million gallons of

1. NAT'L TRANSP. SAFETY BD., PRELIMINARY REPORT – RAILROAD, DCA14MR004 (2014), http://www.nts.gov/investigations/AccidentReports/Reports/Casselton_ND_Preliminary.pdf [<https://perma.cc/ULN9-XTFB>] [hereinafter PRELIMINARY REPORT]; *see also* 160 CONG. REC. S844–45 (daily ed. Feb. 10, 2014), <https://www.congress.gov/crec/2014/10/CREC-2014-02-10-pt1-PgS837-5.pdf> [<https://perma.cc/6PP7-D8FU>] (statement of Sen. Heidi Heitkamp).

2. PRELIMINARY REPORT, *supra* note 1; 160 CONG. REC. S844.

crude oil³ collided with the derailed cars causing “tank cars to explode in towering mushroom-cloud flames.”⁴ Fearing additional explosions and a spread of the fire, the nearby town of Casselton was evacuated.⁵ Miraculously, the engineers and conductors on both trains were able to escape the incident unharmed.⁶ The incident, however, caused millions of dollars in damages.⁷

The Casselton derailment is not an isolated event.⁸ Recent advancements in horizontal drilling⁹ and hydraulic fracturing¹⁰ technologies have allowed energy producers to, for the first time, extract crude oil from previously unreachable sources.¹¹ Relying on

3. The east-bound BNSF train that derailed and exploded near Casselton was carrying 106 tank cars filled with Bakken crude oil. PRELIMINARY REPORT, *supra* note 1. Each crude-carrying tank car contains 700 barrels of crude oil. See PATRICK BRADY, BNSF CRUDE-BY-RAIL (2013), <https://www.fra.dot.gov/Elib/Document/3436> [<https://perma.cc/WV5X-TPFQ>]. One barrel of crude oil equals forty-two gallons. See American Oil & Gas Historical Society, History of the 42 Gallon Oil Barrel, <http://aoghs.org/news/history-of-the-42-gallon-oil-barrel/> [<https://perma.cc/427Q-S3AQ>] (last visited Sept. 25, 2016). Understanding these figures, it becomes clear that the east-bound train in the Casselton derailment carried over three million gallons of crude oil because it hauled 106 tank cars that each contained 700 barrels of crude oil. See also FEMA, *Challenges Faced During the 2013 Casselton Derailment*, <https://www.fema.gov/challenges-faced-during-2013-casselton-train-derailment> [<https://perma.cc/GW3K-ZGE2>] (noting that each week, more than forty different mile-long-crude-oil trains travel through Cass County, North Dakota, each hauling more than three million gallons of crude oil).

4. David Schaffer, *As Oil Train Burns, 2,300 Residents of Casselton, N.D., Told to Flee*, STAR TRIBUNE, Dec. 31, 2013, <http://www.startribune.com/as-oil-train-burns-2-300-residents-of-casselton-n-d-told-to-flee/238070771/> [<https://perma.cc/MXE8-5M2P>].

5. JOHN FRITTELLI ET AL., CONG. RES. SERV., U.S. RAIL TRANSPORTATION OF CRUDE OIL: BACKGROUND AND ISSUES FOR CONGRESS 12 (2014), <https://www.fas.org/sgp/crs/misc/R43390.pdf> [<https://perma.cc/W59P-TGFC>].

6. PRELIMINARY REPORT, *supra* note 1; see also 160 CONG. REC. S844.

7. PRELIMINARY REPORT, *supra* note 1.

8. See FRITTELLI ET AL., *supra* note 5, at 12.

9. Horizontal drilling is a technology that enables a drill head to pivot and turn below the earth’s surface, thus changing the direction of a well from a vertical orientation to a horizontal orientation. See Bruce M. Kramer, *Horizontal Drilling and Trespass: A Challenge to the Norms of Property and Tort Law*, 25 COLO. NAT. RESOURCES, ENERGY & ENVTL. L. REV. 291, 293–94 (2014). Horizontal drilling technology has been utilized in shale formations to increase the surface area of shale rock exposed to the well wall, allowing for increased access to the hydrocarbons contained in them. See *id.*

10. Hydraulic fracturing is a technology that involves igniting explosives to shoot water, sand, and lubricants down a well to slam against shale rock deep below the earth’s surface. This process creates fractures in the shale rock and allows oil and gas contained in the shale to flow to the earth’s surface. See Hilary Boudet et al., *“Fracking” Controversy and Communication: Using National Survey Data to Understand Public Perceptions of Hydraulic Fracturing*, ENERGY POL’Y 57, 58 (2014).

11. These two technologies combined to allow for economically feasible development of oil and gas resources in previously unreachable energy-rich shale rock

these technologies, energy producers are extracting oil from energy-rich shale formations miles below the earth's surface in places such as the Bakken Formation in Eastern North Dakota and Western Montana and the Eagle Ford Formation in Southern Texas.¹² United States oil production has now eclipsed previous production records,¹³ and producers have relied heavily on railroads to transport the flood of American crude oil from well-heads to refineries.¹⁴ The recent increase in crude oil shipped by train is dramatic, not just affecting the rail transportation system in oil producing regions, but also throughout the country at large.¹⁵ For instance, dozens of trains—each carrying as many as three million gallons of crude oil—pass through Wisconsin in a given week.¹⁶

The dramatic increase in the volume of crude-by-rail shipments has created increased risks of explosive train derailments.¹⁷ Recent years have provided multiple examples of crude-train derailments and explosions, costing lives and causing millions of dollars in damages.¹⁸ For example, on July 6, 2013, a train carrying crude oil from the Bakken Formation derailed and exploded in Lac-Mégantic, Quebec, which killed forty-two people and caused immense destruction of the

formations in North Dakota, Montana, and Texas. *See generally* Michael Levi, *Think Again: The American Energy Boom*, FOREIGN POL'Y, July–Aug. 2012, at 55, http://www.ourenergypolicy.org/wp-content/uploads/2012/08/0_New_14413.pdf [https://perma.cc/VCW4-REUG].

12. *See* FRITTELLI ET AL., *supra* note 5, at 2–4.

13. Benjamin Snyder, *U.S. Oil Production Reaches All-Time High Amid Depressed Crude Prices*, FORTUNE (Feb. 11, 2015, 8:05 PM), <http://fortune.com/2015/2011/domestic-oil-production-record/> [https://perma.cc/7CVT-P453].

14. FRITTELLI ET AL., *supra* note 5, at 1.

15. The period between 2008 and 2014 saw an over 5,000 percent increase in the volume of crude shipped by rail in the United States. ASS'N OF AMERICAN R.R.S., U.S. RAIL CRUDE OIL TRAFFIC 1 (2015), <https://www.aar.org/BAckgroundPapers/US%20Rail%20Crude%20Oil%20Traffic.pdf> [https://perma.cc/J66C-BTHB]. In 2008, United States Class I railroads originated 9,500 carloads of crude oil; in 2014, they originated 493,146 carloads. *Id.*

16. Lee Bergquist, *Safety Concerns Grow Along Paths of Oil Tanker Train Traffic*, MILWAUKEE J. SENTINEL (Mar. 15, 2015), <http://archive.jsonline.com/news/wisconsin/safety-concerns-grow-along-paths-of-oil-tanker-train-traffic-b99461212z1-296352121.html> [https://perma.cc/HSM4-KWRD].

17. National Transportation Safety Board Chairman Deborah A.P. Hersman asserted that, "[w]hile the soaring volumes of crude oil and ethanol traveling by rail has been good for business, there is a corresponding obligation to protect our communities and our environment." *See* Press Release, Nat'l Transp. Safety Bd., NTSB to Examine the Safe Transportation of Crude Oil and Ethanol by Train (Mar. 6, 2014), <http://www.nts.gov/news/press-releases/Pages/PR20140306.aspx> [https://perma.cc/P8VQ-RPAU].

18. *See* FRITTELLI ET AL., *supra* note 5, at 12.

town.¹⁹ On February 16, 2015, a crude-carrying train derailed near Mount Carbon, West Virginia where twenty-eight tank cars breached and ignited resulting in the evacuation of 300 people.²⁰ Additionally frightening examples of crude train derailments recently took place in Virginia, Alabama, and Pennsylvania.²¹

The increased threat of crude-train explosions has created new legal challenges and also caused confusion about the source of liability in the event of crude-train derailments.²² This is in part due to the federal preemption of state law causes of action relating to rail safety and hazardous materials transportation.²³ This is also in part due to the structure of the crude-by-rail industry, which is complicated by the multiple actors that play separate roles in transporting crude by rail, ranging from crude oil production to equipment leasing and manufacturing to packaging and delivery.²⁴ Responding to threats to health and safety posed by the increased shipment of crude by rail, the United States Department of Transportation has recently enacted comprehensive regulations governing all aspects of the crude-by-rail industry, substantively shaping the legal interests of actors involved in moving crude along the rails.²⁵

This Comment argues that recent United States Department of Transportation rulemaking provides clarity regarding the source of liability in crude-train derailment events, and also modestly enhances opportunities for recovery by the injured. Part I of this Comment will

19. TRANSPORTATION SAFETY BOARD OF CANADA, LAC-MÉGANTIC RUNAWAY TRAIN AND DERAILMENT INVESTIGATION SUMMARY 1-2 (2013), <http://www.tsb.gc.ca/eng/rapports-reports/rail/2013/r13d0054/r13d0054-r-es.pdf> [<https://perma.cc/2DXR-Q2A9>].

20. *Oversight of the Ongoing Rail, Pipeline, and Hazmat Rulemakings: Hearing Before the Subcomm. on R.R.s, Pipelines, & Hazardous Materials of the H. Comm. on Transp. & Infrastructure*, 114th Cong. 126, 129 (2014) (statement of Christopher A. Hart, Chairman, National Transportation Safety Board).

21. See FRITTELLI ET AL., *supra* note 5, at 12.

22. See generally Hanna M. Chouest et al., *Shipper Liability for Hazardous Materials Incidents During Transportation and the Need for a Legislative Solution*, 41 *TRANSP. L.J.* 129, 131-34 (2014) (discussing the emergence of crude-by-rail as a new legal issue in transportation law and explaining the multiple actors involved in the industry).

23. Frank J. Mastro, *Preemption is Not Dead: The Continued Vitality of Preemption Under the Federal Railroad Safety Act Following the 2007 Amendment to 49 U.S.C. § 20106*, 37 *TRANSP. L.J.* 1, 2 (2010) (“The Federal Railroad Safety Act . . . displaces state law, including common law, wherever there is a federal law covering the subject matter of the parallel state law.”).

24. See Chouest et al., *supra* note 22, at 131-34.

25. Press Release, U.S. Dep’t of Transp., DOT Announces Final Rule to Strengthen Safe Transportation of Flammable Liquids by Rail (May 1, 2015), <https://www.transportation.gov/briefing-room/final-rule-on-safe-rail-transport-of-flammable-liquids> [<https://perma.cc/H7CK-HUAB>].

provide background on the structure of the crude-by-rail industry in the United States, and how its dispersive structure affects questions of liability. Part II will detail the federal preemption of state and local laws pertaining to the transportation of hazardous materials such as crude oil and will analyze the differences in preemption under the Federal Railroad Safety Act (FRSA) and the Hazardous Materials Transportation Act (HMTA). Part III will examine the preemption standard that governs crude-train derailments and will analyze bases for private suit by persons injured by crude-train derailments. Part IV will assess the impact of the recent High Hazard Flammable Train (HHFT) regulations on the distribution of liability among industry actors in crude train derailments. Finally, this Comment will conclude that, despite the clarification with regard to liability provided by the HHFT Rule, persons injured by crude-train derailments may nonetheless be left without remedy when industry actors comply with federal regulations.

I. THE STRUCTURE OF THE CRUDE-BY-RAIL INDUSTRY

The combined efforts of several different industry actors are necessary to move crude by rail. Put simply, a different actor owns each piece of the process: the railroad owns the tracks and the train engines, the leasing company typically owns the tank cars that carry the crude oil, the producer owns the crude oil that is carried along the tracks, and the operator at the rail terminal owns the equipment that places crude oil into the tank car.²⁶ Additionally, depending on the role that each actor plays in the process, different federal statutes create different standards of care for that actor.²⁷ Therefore, to understand the distribution of liability in a crude-train derailment event, it is important to understand both the structure of the industry and the contours of the federal regulatory environment that shapes the responsibilities of industry actors.

Each actor involved in crude-by-rail transportation may individually incur liability for damages caused by a derailment event based on how their actions may have contributed to the crash. For instance, the producer may improperly identify the crude product loaded into a tank car, such as by mislabeling the hazardous material classification of the crude oil.²⁸ The loading facility may negligently

26. See *infra* Part I.

27. See *infra* Part II.

28. See, e.g., Jad Mouawad, *3 Companies Fined for Mislabeling Crude Oil in Rail Transit*, N.Y. TIMES (Feb. 4, 2014), http://www.nytimes.com/2014/02/05/business/energy-environment/3-companies-fined-for-mislabeling-crude-oil-in-rail-transit.html?_r=1 [<https://perma.cc/LL56-EVA5>].

load the crude oil into a tank car, which improperly distributes the weight of the tank car and causes the tank car to capsize. The tank car lessee may not have properly maintained its tank car, allowing a defect to compromise the operation of the tank car and cause a derailment.²⁹ The railroad may have improperly maintained its tracks, or carried the tank cars at an excessive speed, which caused a derailment. In each of the above provided scenarios, liability falls upon a different actor in the transportation of crude by rail. Accordingly, an understanding of the structure of the industry is critical to understanding the legal implications of derailment events.

The crude-by-rail industry is comprised of many different participants. Crude oil producers are situated on the front end of the crude-by-rail process, and are referred to as shippers for transportation purposes.³⁰ Producers must deliver their crude oil to refineries, and transportation by rail is often the most economically feasible way to do so.³¹ For producers to ship oil by train, they bring crude oil to a rail-loading terminal by pipeline or truck.³²

Crude-loading rail terminal operators manage the next step in the process. Crude-loading rail terminals are facilities located adjacent to main-line railroad tracks, and are equipped to load crude oil from trucks and pipelines into tank cars to travel along rail lines.³³ A crude-loading rail terminal facility operator ensures that the crude oil is properly loaded into appropriate tank cars and correctly labeled according to regulation.³⁴ The operator then hands off the loaded tank cars to the railroad to transport to the refinery.³⁵

29. See NAT'L TRANSP. SAFETY BD., SAFETY RECOMMENDATION R-14-10, at 2–4 (2014), <http://www.nts.gov/safety/safety-recs/recletters/R-14-10.pdf> [<https://perma.cc/Z2ZR-2BMW>] (detailing federal tank car inspection standards).

30. Crude oil producers are referred to as shippers in transportation contexts, because shipper is the name given to the customer of rail services that seeks to ship her products to a different location. See BNSF, *Glossary of Railroad Terminology & Jargon* (2016), <http://www.bnsf.com/customers/pdf/glossary.pdf> [<https://perma.cc/JRM9-B74D>]. This Comment will refer to crude oil producers as “producers” for consistency and clarity purposes, although the term shipper and producer could be used interchangeably.

31. See FRITTELLI ET AL., *supra* note 5, at 4–5.

32. KEVIN BIRN ET AL., IHS ENERGY, CRUDE BY RAIL: THE NEW LOGISTICS OF TIGHT OIL AND OIL SANDS GROWTH 7 (2014), https://www.ihs.com/pdf/IHS-Oil-Sands-Dialogue-Crude-by-rail-dec-2014_210390110913052132.pdf [<https://perma.cc/X39D-7WLL>].

33. *Id.* For an example of a crude-loading rail terminal, see DAKOTA PLAINS, *Operations – Pioneer Terminal*, <http://www.dakotaplains.com/operations/> [<https://perma.cc/5BAC-765G>] (last visited Oct. 24, 2016).

34. See BIRN ET AL., *supra* note 32, at 7.

35. See *id.* 7–8.

Tank car owners and lessors also occupy a middle part of the transportation process.³⁶ For producers to transport their crude oil, they must procure tank cars to carry their crude oil.³⁷ Tank cars are either owned by a leasing company or by the producers themselves.³⁸ Railroad companies typically do not own the crude-filled tank cars that they carry.³⁹

Railroads cover the final steps of the process. Class I railroads are large rail service providing companies, and are hired to carry crude-carrying tank cars long distances.⁴⁰ Class I railroads typically carry crude oil from the crude-loading rail terminal facility to a short line railroad located near the refinery.⁴¹ A short line railroad carries the tank cars from the transcontinental main line tracks along short line tracks for the short distance remaining to reach the refinery.⁴²

II. REGULATION OF THE CRUDE-BY-RAIL INDUSTRY AND IMPACT OF FEDERAL PREEMPTION

In addition to understanding the complicated structure of the crude-by-rail industry, plaintiffs in a crude-train derailment must also be cognizant of the regulatory environment in which crude-by-rail industry actors operate. Crude-by-rail transportation is a highly regulated industry⁴³ in which federal law predominates.⁴⁴ Congress explicitly preempted states from regulating rail transportation and hazardous materials safety, which means that state law causes of action relating to the preempted area, both common or statutory, are largely unavailable

36. *Id.* at 7–8 (explaining that terminal loaders place crude oil into tank cars after receiving it from producers). Many tank car manufacturers retain ownership in the tank cars that they produce and lease them to shippers. *See* U.S. INT'L TRADE COMM'N, ROLLING STOCK: LOCOMOTIVES AND RAIL CARS – INDUSTRY & TRADE SUMMARY 4 (2011), <https://www.usitc.gov/publications/332/ITS-08.pdf> [<https://perma.cc/SJ5Q-UP69>].

37. *See* BIRN ET AL., *supra* note 32, at 8.

38. *See id.* at 8.

39. Thomas M. Corsi et al., *A Preliminary Investigation of Private Railcars in North America*, J. TRANSP. RES. F. 53, 57 (2012) (finding that there are “virtually no railroad . . . owned tank cars even though tank car categories account for 11.7% of total railroad revenues in 2008”).

40. The Surface Transportation Board defines a Class I railroad as “having annual carrier operating revenues of \$250 million or more.” 49 C.F.R. § 1201.1–1 (2015).

41. *See* BIRN ET AL., *supra* note 32, at 8.

42. *See id.* at 8.

43. *See generally* FRITTELLI ET AL., *supra* note 5, at 14–16.

44. 49 U.S.C. § 20106(a)(2) (2012) (providing for federal preemption of state railroad safety regulations); § 5125(b)(1) (providing for federal preemption of state hazardous materials transportation safety regulations).

to plaintiffs.⁴⁵ Therefore, plaintiffs in a crude-train derailment event, in most circumstances, will be unable to assert state law causes of action such as common law negligence or trespass when seeking damages from an industry actor for injuries suffered in a crude-train derailment event.⁴⁶

Two federal statutes regulate rail carriage of crude oil: the Federal Rail Safety Act (FRSA)⁴⁷ and the Hazardous Materials Transportation Act (HMTA).⁴⁸ Both statutes enforce regulations through compliance orders, civil penalties, and injunctive relief,⁴⁹ and neither statute explicitly provides for private causes of action stemming from failure to comply with the federal standard.⁵⁰ However, courts have subsequently interpreted the FRSA and HMTA to allow common law suits relating to derailment events that are not preempted by federal laws or regulations.⁵¹

A. Federal Railroad Safety Act (FRSA)

The FRSA primarily governs the regulation of railroad transportation.⁵² Congress first enacted the FRSA in 1970 “to promote safety in every area of railroad operations and reduce railroad-related accidents and incidents.”⁵³ The statute directs the Secretary of Transportation to “prescribe regulations and issue orders for every area of railroad safety.”⁵⁴ The FRSA broadly regulates the conduct of railroads and imposes requirements on, among other things, railroad track standards, inspection requirements, train speeds, braking requirements, routing and operating requirements, and equipment standards.⁵⁵

45. § 5125(b)(1).

46. When a federal law preempts state laws on the same topic, the federal law also preempts common law causes of action that would impose a higher standard of care than provided for in the federal law. *See Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 522 (1992) (“[T]he phrase ‘state law’ . . . include[s] common law as well as statutes and regulations.”).

47. §§ 20101–67.

48. §§ 5101–28.

49. § 20113(a)–(b) (authorizing injunctive relief and the imposition of civil penalties for violations of the FRSA); § 5122(a) (authorizing temporary or permanent injunction, punitive damages, and assessment of civil penalties for violations of the HTMA).

50. §§ 20101–67; §§ 5101–28.

51. *See infra* Part III.B.

52. § 20103(a).

53. Federal Railroad Safety Act of 1970, Pub. L. No. 91-458, 84 Stat. 971 (codified as amended at 49 U.S.C. § 20101 (2012)).

54. § 20103(a).

55. §§ 20131–67.

The FRSA explicitly preempts state and local laws regulating railroad safety, including state common law causes of action premised on violations,⁵⁶ but not completely.⁵⁷ The statute provides states with the authority to enforce more stringent requirements if “necessary to eliminate or reduce an essentially local safety or security hazard,”⁵⁸ provided that the state regulation “is not incompatible with a law, regulation, or order of the United States Government”⁵⁹ and “does not unreasonably burden interstate commerce.”⁶⁰ Therefore, if a state law regulates how railroads address local safety concerns or hazards in a manner that does not conflict with federal requirements, the state law may survive preemption.

Initially, some courts interpreted the FRSA as entirely preempting common law causes of action against railroads for failing to comply with safety standards.⁶¹ This interpretation completely barred recovery for persons injured on account of a railroad’s failure to comply with federal regulations.⁶² One particularly egregious instance of denial of recovery spurred Congress to act to clarify the FRSA preemption clause.⁶³ In *Lundeen v. Canadian Pacific Railway*,⁶⁴ the District Court of Minnesota relied on the FRSA preemption clause to dismiss an action brought by persons injured by the derailment of a train carrying poisonous chemical gas.⁶⁵ Shortly after, Congress amended the FRSA to specifically provide that

56. *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 522 (1992) (“[T]he phrase ‘state law’ . . . include[s] common law as well as statutes and regulations.”).

57. § 20106(a)(2)–(b).

58. § 20106(a)(2)(A).

59. § 20106(a)(2)(B).

60. § 20106(a)(2)(C); *see also CSX Transp. v. Easterwood*, 507 U.S. 658, 662 (1993).

61. *See* Brian O. Noble, *Change You Shouldn't Believe In: Why the FRSA Clarification Amendment Doesn't Narrow the Scope of Preemption in State Tort Actions*, 40 CUMB. L. REV. 243, 250 (2010); *see also Easterwood*, 507 U.S. at 664 (citation omitted) (internal quotation marks omitted) (determining that “legal duties imposed on railroads by the common law fall within the scope of” state “law, rule, regulation, order, or standard relating to railroad safety” that are preempted by the FRSA).

62. *See Lundeen v. Canadian Pac. Ry.*, 447 F.3d 606, 614–15 (8th Cir. 2006), *vacated*, 532 F.3d 682, 691–92 (8th Cir. 2008); *Mehl v. Canadian Pac. Ry.*, 417 F. Supp. 2d 1104, 1121 (D.N.D. 2006).

63. Congress amended the FRSA to “apply to all pending State law causes of action arising from events or activities occurring on or after January 18, 2002.” *See* § 20106(b)(2). January 18, 2002 is the exact date of the Minot, North Dakota chemical train derailment. *See Lundeen v. Canadian Pac. Ry.*, 532 F.3d 682, 687 (8th Cir. 2008).

64. 507 F. Supp. 2d 1006 (D. Minn. 2007).

65. *Id.* at 1008–09.

[n]othing in [the FRSA] shall be construed to preempt an action under State law seeking damages for personal injury, death, or property damage alleging that a party . . . has failed to comply with the Federal standard of care . . . has failed to comply with its own plan, rule, or standard . . . [or] has failed to comply with a State law, regulation, or order that is not incompatible with subsection (a)(2).⁶⁶

Although the FRSA includes a preemption carve-out for certain causes of action for personal damages, the Supreme Court has determined that plaintiffs must still show that a defendant failed to comply with a federal standard in order to escape preemption.⁶⁷ In *CSX Transportation, Inc. v. Easterwood*,⁶⁸ a motorist was killed at a railroad crossing when he was struck by a train.⁶⁹ The plaintiffs asserted that the conductor was negligently operating the train at a speed too high under the circumstances, and therefore the railroad was liable for damages.⁷⁰ The Court determined that the FRSA preempted this negligence claim, because the train was operating within the speed permitted by federal regulations.⁷¹ In other words, the Court held that the FRSA preempts common law causes of action where the defendant railroad complies with federal regulations.⁷²

B. Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act (HMTA) primarily governs the packaging, labeling, and equipment standards for the transportation of crude oil. Enacted in 1975, the statute's purpose is to "protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material."⁷³ Like the FRSA, the HMTA contains an express preemption clause.⁷⁴

The HMTA preemption clause bars state common law claims such as negligence and failure to warn "that, if successful, would impose

66. 49 U.S.C. § 20106(b)(1) (2012).

67. See Noble, *supra* note 61, at 256–57.

68. 507 U.S. 658 (1993).

69. *Id.* at 661.

70. *Id.*

71. *Id.* at 673–74.

72. The Court has created an exception to this general rule for circumstances involving warning signals that are installed using federal funds. Because the federal government participates in the installation of the warning devices, the railroad is shielded from state causes of action relating to warning devices by the preemption clause regardless of whether the warning signal complies with federal regulations. See *id.* at 670.

73. 49 U.S.C. § 5101 (2012).

74. § 5125(b)(1).

design requirements upon a package or container qualified for use in transporting hazardous materials in commerce.”⁷⁵ This preemption clause’s scope, therefore, limits common law tort claims to negligence per se.⁷⁶ Under the HMTA, shippers, tank car lessors, and crude-loading rail terminal operators that fail to comply with federal standards may be liable for damages caused by a crude-train derailment attributable to the failure to comply with regulations.⁷⁷

C. The High-Hazard Flammable Trains (HHFT) Rule

Perhaps most importantly, industry actors must be familiar with the substantive regulations governing rail transportation of hazardous materials in order to understand the legal implications of crude-train derailments. In response to the threats to health and safety posed by crude-train derailments, the United States Department of Transportation recently ratcheted up the regulation of crude-carrying trains by enacting a final comprehensive rule governing all aspects of the crude-by-rail industry.⁷⁸ The rule is designed to treat trains carrying substantial amounts of crude oil differently than other trains on the tracks. To do so, the rule creates a new legal category of train—the high-hazard flammable train (HHFT)—which is defined as a train that carries “a continuous block of 20 or more tank cars loaded with a flammable

75. *Roth v. Norfalco L.L.C.*, 651 F.3d 367, 379 (3d Cir. 2011).

76. Negligence per se is found if “without excuse, the actor violates a statute that is designed to protect against the type of accident the actor’s conduct causes, and if the accident victim is within the class of persons the statute is designed to protect.” RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 14 (AM. LAW INST. 2010). Because the HMTA preempts state law causes of action that impose duties beyond those required by federal law, the only remaining avenue for the plaintiff to recover would be to show that the actor failed to comply with the federal law.

77. The United States Department of Transportation has specified that [f]ederal hazardous material transportation law does not preempt a tort claim that a packaging, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material failed to meet the design, manufacturing, or marking requirements in the [hazardous materials regulations] or that a person who offered a hazardous material for transportation in commerce or transported a hazardous material in commerce failed to comply with applicable requirements in the [hazardous materials regulations].

Common Law Tort Claims Concerning Design and Marking of DOT Specification 39 Compressed Gas Cylinders, 77 Fed. Reg. 39,567, at 39,567 (July 3, 2012).

78. Press Release, U.S. Dep’t of Transp., DOT Announces Final Rule to Strengthen Safe Transportation of Flammable Liquids by Rail (May 1, 2015), <https://www.transportation.gov/briefing-room/final-rule-on-safe-rail-transport-of-flammable-liquids> [<https://perma.cc/H7CK-HUAB>].

liquid or 35 or more tank cars loaded with a flammable liquid dispersed through a train.”⁷⁹

Trains that meet the HHFT definition⁸⁰ are required to comply with heightened standards for train braking systems, tank car design, trains speeds, sampling and testing of crude oil prepared for transportation, train routing, and information disclosure.⁸¹ The regulations—which are implemented under both the authority provided by the HMTA and the FRSA—aim to “reduce the consequences and, in some instances, reduce the probability of accidents involving trains transporting large quantities of flammable liquids.”⁸² The regulation touches each portion of the crude-by-rail industry, from oil producers on the front end to railroads transporting the crude oil on the back end.⁸³

III. THE HIGH-HAZARD FLAMMABLE TRAINS (HHFT) RULE AND BASES FOR LIABILITY

The recently enacted HHFT Rule creates new safety standards for all actors involved in the crude-by-rail industry and more clearly delineates the distribution of liability in the event of a crude-train derailment. This is because the heightened regulations, which aim to improve safety and mitigate risks in the event of a derailment, more fully define the responsibilities of industry actors⁸⁴ and in so doing, clarify liability for failing to comply with heightened federal standards. By understanding the HHFT regulations, industry actors and legal practitioners are in a stronger position to understand how their actions or inactions may give rise to civil liability.

79. *Id.*

80. The HHFT Rule also creates a definition for the high-hazard flammable unit train (HHFUT)—a train comprised of seventy or more loaded tank cars containing Class 3 flammable liquids—which must also comply with all of the HHFT regulations. 49 C.F.R. § 171.8 (2015). HHFUTs must also meet an even higher standard braking technology. See U.S. Dep’t of Transp., *Rule Summary: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains* (May 1, 2015), <https://www.transportation.gov/mission/safety/rail-rule-summary> [<https://perma.cc/PV3N-F2KV>] [hereinafter *HHFT Rule Summary*].

81. *HHFT Rule Summary*, *supra* note 80.

82. Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 80 Fed. Reg. 26,644, at 26,644 (May 8, 2015) (to be codified at 49 C.F.R. pts. 171–74, 179) [hereinafter *HHFT Final Rule*].

83. See *HHFT Final Rule*, *supra* note 82, at 26,646–47 tbl.1; see also *infra* Part II.

84. *HHFT Rule Summary*, *supra* note 80.

A. High-Hazard Flammable Trains Rule: Which Statute Conditions Preemption?

In a crude-train derailment case, the court must, as an initial matter, determine if federal law governing crude-by-rail transportation preempts a cause of action. Crude-by-rail transportation is governed by the HHFT Rule.⁸⁵ The United States Department of Transportation⁸⁶ promulgated the HHFT Rule under the Hazardous Materials Transportation Act (HMTA), but also relied on authority provided by the Federal Railroad Safety Act (FRSA).⁸⁷ Because both the HMTA and FRSA are implicated in any analysis of the legal responsibilities in crude-by-rail transportation, a potentially important question for courts to answer is whether the FRSA or HMTA preemption clause covers a particular aspect of a crude-train derailment claim.

The United States Department of Transportation itself equivocates on whether the FRSA or the HMTA preemption clause will govern actions relating to the subject matter of the HHFT regulations. In its final notice of rulemaking, the United States Department of Transportation explained that the HHFT preempts state and local laws due to the preemption clauses provided by the FRSA and the HTMA, but did not explain how to determine which preemption standard applies under a given circumstance.⁸⁸ By one view, the HMTA preemption clause would cover suits involving crude-train derailments because that

85. *Id.*

86. More specifically, an agency within the United States Department of Transportation called the Pipeline and Hazardous Materials Safety Administration (PHMSA) drafted, considered comments for, and promulgated the HHFT Rule. *See* HHFT Final Rule, *supra* note 82, at 26,644.

87. The Secretary of Transportation “has authority over all areas of railroad transportation safety” and delegated this authority to the Federal Railroad Administration. *Id.* at 26,645. The Federal Railroad Administration “inspects and audits railroads, tank car facilities, and hazardous material offerors for compliance with both FRA and PHMSA regulations.” *Id.*; *see also* 49 CFR § 1.89 (2015).

88. Several of the issues addressed in this final rule are subject to our preemption authority, i.e., classification, packaging, and rail routing. In regard to rail routing, for example, in a March 25, 2003 final rule (68 FR 14509), we concluded that the specifics of routing rail shipments of hazardous materials preempts all states, their political subdivisions, and Indian tribes from prescribing or restricting routes for rail shipments of hazardous materials, under Federal hazardous material transportation law (49 U.S.C. 5125) and the Federal Rail Safety Act (49 U.S.C. 20106). We would expect the same preemptive effect as a result of this rulemaking, and thus, the consultation and funding requirements of Executive Orders 13132 and 13175 do not apply. Nonetheless, we invited state and local governments with an interest in this rulemaking to comment on any effect that proposed requirements could have on them, if adopted.

HHFT Final Rule, *supra* note 82, at 26,724.

statute provides the authority under which high-hazard flammable trains were defined and regulated.⁸⁹ By another view, the FRSA preemption clause would cover suits involving crude-train derailments because that statute provides the Federal Railroad Administration with the authority for the enforcement of the rule,⁹⁰ as well as the general regulation of railroad transportation.⁹¹ Determining which statute's preemption clauses covers crude-by-rail transportation could implicate the rights of plaintiffs because the FRSA and HMTA preemption clauses are not the same.⁹²

The FRSA includes a savings clause which specifically provides that actions "under State law seeking damages for personal injury, death, or property damage" are not preempted if they assert that a party failed to comply with a federal standard, an internal operating standard, or a non-preempted state or local regulation.⁹³ The HMTA, on the other hand, contains no such clarification that civil actions may be asserted against a violator of the act for injuries to person or property that are attributable to a violation.⁹⁴ Without clarification in the statute that certain civil actions may be sustained in the area covered by a transportation regulation, courts have, in the past, interpreted railroad

89. The Final HHFT Rule makes clear that "[f]ederal hazardous materials transportation law (49 U.S.C. 5101-5128) authorizes the Secretary of Transportation (Secretary) to 'prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce.' The Secretary delegated this authority to [the Pipeline and Hazardous Materials Safety Administration]." *Id.* at 26,645; *see also*, 49 CFR § 1.97(b). "PHMSA is responsible for overseeing a hazardous materials safety program that minimizes the risks to life and property inherent in transportation in commerce." *HHFT Final Rule*, *supra* note 82, at 26,645.

90. The Federal Railroad Administration is the federal agency responsible for enforcing regulations relating to rail transportation. *Tyrrell v. Norfolk S. Ry.*, 248 F.3d 517, 523 (6th Cir. 2001) ("Based on the federal railway statutes . . . and the resulting regulatory systems, Congress vested the [Federal Railroad Administration] with primary authority over national rail safety policy."). *See also* FRITTELLI ET AL., *supra* note 5, at 14 ("The Federal Railroad Administration (FRA) has jurisdiction over railroad safety. It has about 500 federal inspectors throughout the country and also utilizes about 180 state railroad safety inspectors. State inspectors predominantly enforce federal requirements because federal rail safety law preempts state law, and federal law is pervasive.") (citation omitted).

91. The Final HHFT Rule acknowledges that the FRSA provides the authority for various aspects of regulation included in the rule, stating that the "Secretary [of Transportation] . . . has authority over all areas of railroad transportation safety (Federal railroad safety laws, principally 49 U.S.C. chapters 201-213), and this authority is delegated to [Federal Railroad Administration]." *HHFT Final Rule*, *supra* note 82, at 26,645.

92. *Compare* 49 U.S.C. § 20106 (2012), *with* § 5125(b)(1).

93. § 20106(b)(2).

94. § 5125(b)(1).

regulations as completely barring common law causes of action.⁹⁵ Therefore, if the HHFT Rule is governed by the HMTA preemption clause, there is a risk that courts will interpret the preemption clause as barring all common law claims brought by victims of crude-train derailment events premised on violations of the HMTA, because the statute does not include a savings clause allowing for civil actions for wrongful death or personal injury.⁹⁶

While the absence of an explicit savings clause in the HMTA may create a risk of a court interpreting the HMTA to bar all common law claims, generally accepted views regarding preemption doctrine suggest that those risks are low.⁹⁷ A preemption clause in a federal statute prevents state law or a plaintiff's action from imposing additional requirements on a party beyond those provided in federal law.⁹⁸ Here, a plaintiff's suit alleging that a railroad or tank car lessor failed to comply with the HMTA would not, if successful, impose any additional requirements on the actor.⁹⁹ Quite the opposite; the action would effectively enforce the federal standard. A possible consequence of the absence of a savings clause in HMTA would be to bar suits premised on the actor's failure to comply with its internal hazardous materials transportation standards, which is an issue for the courts to decide in subsequent litigation given the ambiguity provided by the HHFT regulations. Nevertheless, suits stemming from a crude-train derailment brought under FRSA violations would provide more favorable grounds for a plaintiff seeking recovery for injury, because the statute itself provides assurance that certain common law causes of action "seeking damages for personal injury, death, or property damage" are not preempted.¹⁰⁰

95. In *Lundeen*, the Eighth Circuit held that the FRSA preemption clause completely barred state law causes of action against a railroad. *Lundeen v. Canadian Pac. Ry.*, 447 F.3d 606, 614–15 (8th Cir. 2006). Shortly thereafter, Congress amended the preemption clause to clarify that actions for wrongful death or injury are permissible under the FRSA, and the *Lundeen* decision was vacated and remanded. *Lundeen v. Canadian Pac. Ry.*, 532 F.3d 682, 688, 691 (8th Cir. 2008). See also *Mehl v. Canadian Pac. Ry.*, 417 F. Supp. 2d 1104, 1121 (D.N.D. 2006).

96. See § 5125(b)(1) (HMTA preemption clause includes no exception for wrongful death or injury); cf. § 20106 (FRSA preemption clause includes an exception for wrongful death or injury under certain circumstances).

97. See JAMES T. O'REILLY, FEDERAL PREEMPTION OF STATE AND LOCAL LAW: LEGISLATIVE, REGULATION AND LITIGATION § 9.13, at 88 (2006).

98. See, e.g., *id.*

99. As one court noted, the HMTA "preempts state common law claims that, if successful, would impose design requirements upon a package or container qualified for use in transporting hazardous materials in commerce." *Roth v. Norfalco, L.L.C.*, 651 F.3d 367, 379 (3d Cir. 2011).

100. § 20106(b).

Courts tasked with determining whether the FRSA or HMTA preemption clause covers train derailments involving hazardous materials have generally adopted the view that the FRSA applies to railroads,¹⁰¹ and Supreme Court dicta supports this view.¹⁰² In *Easterwood*, the Supreme Court conducted its analysis under the FRSA preemption clause, as opposed to the Highway Safety Act.¹⁰³ In doing so, the Court commented that “the plain terms of [the FRSA preemption clause] do not limit the application of its express preemption clause to regulations adopted by the Secretary pursuant to FRSA. Instead, they state that any regulation ‘adopted’ by the Secretary may have pre-emptive effect [under the FRSA], regardless of the enabling legislation.”¹⁰⁴ Because the Court has indicated that the FRSA preemption clause stands above preemption clauses embedded in other transportation safety statutes, legal issues implicating the conduct of a railroad in crude-train derailments will be analyzed under the FRSA preemption clause.¹⁰⁵ The conduct of other industry actors—such as tank car lessors and crude oil terminal loading facilities—would likely be analyzed under the HMTA preemption clause.¹⁰⁶

B. Bases for Suit in a Crude-Train Derailment

Despite the potentially catastrophic consequences of a crude-train derailment,¹⁰⁷ federal preemption significantly constrains a plaintiff’s ability to recover when injured by a train explosion.¹⁰⁸ Federal

101. See *CSX Transp., Inc. v. Pub. Util. Comm’n of Ohio*, 901 F.2d 497, 501 (6th Cir. 1990) (finding that Congress intended for the preemption provisions of FRSA to apply to hazardous material regulations adopted under HMTA applicable to the railroads); see also *Bradford v. Union Pac. R.R.*, 491 F. Supp. 2d 831, 839 (W.D. Ark. 2007); *Mayor of Balt. v. CSX Transp., Inc.*, 404 F. Supp. 2d 869, 876 (D. Md. 2005); *In re New Orleans Train Car Leakage Fire Litig.*, 671 So. 2d 540, 545 n.1 (La. Ct. App.); *In re Miamisburg Train Derailment Litig.*, 626 N.E.2d 85, 89 (Ohio 1994).

102. *CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 663 n.4 (1993).

103. *Id.*

104. *Id.*

105. A possible issue that courts will face in future crude train derailment suits is the applicability of the FRSA preemption clause to violations of hazardous materials regulations that take place *prior* to the shipment of crude, such as the preparation and packaging of crude oil by producers and terminal loading facilities. The Court’s comments in *Easterwood* provide little guidance on whether that conduct falls under the FRSA or the HMTA preemption clause.

106. This is because the HMTA, not the FRSA, provides regulations for the crude loading, labeling, and use of equipment—which are the areas of crude-by-rail transportation that are carried out by tank car lessors and crude terminal loaders. See *supra* Part II.A–B.

107. See *supra* Introduction.

108. See, e.g., *Easterwood*, 507 U.S. at 658 (“Legal duties imposed on railroads by a State’s common law of negligence fall within the scope of § 434’s broad

preemption of state and local law bars state law tort actions arising out of conduct for which federal regulations provide a preemptive standard of care.¹⁰⁹ However, the extent of the constraints provided by federal preemption in the crude-by-rail context is unclear. With record oil production continuing to push crude onto the rails,¹¹⁰ crude-carrying trains will continue to derail and courts will be called upon to delineate the contours of plaintiff's rights in instances of injury from train explosions. Although crude-train derailment case law is sparse given the propensity of industry actors to settle instead of proceeding to trial,¹¹¹ court decisions to date have suggested possibly successful, and unsuccessful, paths to recovery in light of federal preemption of state and local laws.¹¹²

1. NEGLIGENCE PER SE

Most common law tort actions against a railroad or other industry participants in a crude-train derailment will be preempted by federal regulation.¹¹³ However, the mere existence of a preemption clause does not end the “examination of a preemption question.”¹¹⁴ The defendant in a crude-train derailment case may show that its conduct conformed to the HHFT Rule in order to be entitled to a preemption defense.¹¹⁵ If a defendant fails to show that it met a federal standard for carrying crude-by-rail, it may be subject to liability under a negligence per se theory.¹¹⁶

phrases describing matters ‘relating to railroad safety.’”); *In re Amtrol Holdings, Inc.*, 532 F. App'x 316 (3d Cir. 2013) (deferring to agency legal opinion that the HMTA preempts state law torts that, if successful, would impose a duty of care beyond those prescribed in federal regulations).

109. *Easterwood*, 507 U.S. at 658.

110. *See supra* Introduction.

111. “Little actual law exists in the area of shipper responsibility for [hazardous materials derailments], due to the simple reason that most cases settle.” Chouest et al., *supra* note 21, at 135.

112. *See infra* Part III.B.

113. *See supra* Part II.

114. O'REILLY, *supra* note 97, § 9.13, at 88; *see also Medtronic, Inc. v. Lohr*, 518 U.S. 470, 484 (1996).

115. O'REILLY, *supra* note 97, § 9.13, at 88.

116. In *Lohr*, the Court explained that a suit premised on a failure to comply with a federal regulatory standard does not violate the purpose of the preemption clause—which is to require a uniform regulatory standard across the different states—because holding a defendant accountable would not impose new requirements upon a defendant beyond those already provided in federal law. 518 U.S. at 513. Some courts have framed a state law suit premised on a failure to meet a federal standard of care as a “parallel” claim, as opposed to negligence per se, because a negligence per se claim requires an underlying claim of negligence that would not be preempted by federal law. *See In re Medtronic, Inc. Sprint Fidelis Leads Prods. Liab. Litig.*, 592 F. Supp. 2d

Federal preemption of common law tort claims severely limit the ability of victims to recover from a crude-train derailment event, and, therefore, negligence per se will be the main method for recovery for persons injured by a crude-train derailment. In order for negligence per se to be found, most states require that the victim show that (1) an actor violated a safety regulation (2) which caused or contributed to an injury (3) to a person which the regulation is intended to protect.¹¹⁷ With respect to the first two prongs of a negligence per se claim in a crude-train derailment case, claims must be analyzed under the regulations provided in the HHFT Rule.¹¹⁸ A defendant will simply need to show that a regulation was not violated. In the event that it was, the plaintiff must show that an injury was caused or contributed to on account of that violation. With respect to the third prong of a negligence per se claim in this context, a typical plaintiff will be able to satisfy the requirement that she belongs to the class of persons which the regulation is intended to protect, because the HHFT Rule is a safety regulation that is a meant to protect the public at large and a person injured by the crude-train derailment belongs to this group.¹¹⁹

2. STRICT LIABILITY

Because hazardous materials are often flammable and explosive, and trains carry the unavoidable risk of derailment,¹²⁰ plaintiffs have

1147, 1155 (D. Minn. 2009). This is mainly a semantical point, because the root of both a negligence per se claim and a “parallel” claim is the de facto finding of negligence for failure to meet a statutory safety standard.

117. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 14 (AM. LAW INST. 2010).

118. HHFT Final Rule, *supra* note 82, at 26,645. This is because the HHFT Rule governs all aspects of the crude-by-rail industry. Therefore, failure to comply with the HHFT Rule would result in a finding of failure to comply with a federal standard.

119. The purpose of the HHFT Rule is to adopt “requirements designed to reduce the consequences and, in some instances, reduce the probability of accidents involving trains transporting large quantities of flammable liquids,” which provides for the safety of the public at large. *Id.* at 26,644. Under some circumstances, the plaintiff may not belong to the class of persons protected by the HHFT. For instance, if the plaintiff is an employee of a crude-by-rail industry actor, she will not able to assert a claim stemming from a violation of the HHFT Rule. Instead, she will be offered a remedy through the Federal Railroad Employee Act (FELA) which provides the “exclusive remedy” for a railroad employee injured by the negligent conduct of his employer railroad. *Rivera v. Union Pac. R.R.*, 378 F.3d 502, 507 (5th Cir. 2004).

120. The risk of freight train derailment is low but has not, and likely cannot, be eliminated entirely. For example, BNSF trains derail at a rate of 3.19 incidents per million train miles in 2005. BNSF RAILWAY, DERAILMENT PREVENTION AND RESOURCE PROTECTION SOLUTIONS PROGRAMS, at dprp-1, http://www.bnsf.com/communities/pdf/2_PreventProtectSolutions.pdf [<https://perma.cc/PJ9J-NTT8>] (citing data reported to the Federal Railroad Administration).

argued that transporting hazardous materials by rail constitutes an activity that carries strict liability.¹²¹ Under the strict liability doctrine, an actor may be liable without fault for the damages caused by her “abnormally dangerous activity” even though she exercised the “utmost care to prevent the harm.”¹²² On this theory, some activities are deemed so dangerous that even the most prudent actor would be unable to take every necessary precaution to prevent injury or harm, and the actor should be held liable without fault for damages on account of that dangerous activity.¹²³ Although hazardous materials transportation carries the potentially unavoidable risk of harm, apropos to claims under the strict liability doctrine, suits asserting strict liability for train accidents involving hazardous materials have generally failed.¹²⁴

In the highly influential Seventh Circuit decision, *Indiana Harbor Belt Railroad v. American Cyanamid*,¹²⁵ the court considered whether a spill of acrylonitrile—like crude oil, a chemical listed as a hazardous materials¹²⁶—should carry strict liability for the manufacturer.¹²⁷ In that decision, the Seventh Circuit determined that strict liability does not apply and that the appropriate standard to weigh liability is the ordinary negligence standard.¹²⁸ The court reasoned that the shipper would likely have been able to prevent the spill of acrylonitrile with increased care, and therefore the strict liability doctrine, which is reserved for activities for which no amount of precaution could be applied to ensure safety, did not apply.¹²⁹ The court also noted that “[i]t is difficult to see how it might have been prevented at reasonable cost by a change in the activity of transporting the chemical.”¹³⁰ Sister circuits have approved of the *Indiana Harbor* standard,¹³¹ which has significantly reduced the utility

121. See, e.g., *Ind. Harbor Belt R.R. v. Am. Cyanamid Co.*, 916 F.2d 1174, 1175 (7th Cir. 1990); see also *In re Derailment Cases*, 416 F.3d 787, 797 (8th Cir. 2005).

122. See RESTATEMENT (SECOND) OF TORTS § 519 (AM. LAW INST. 1977).

123. “The defendant is held liable although he has exercised the utmost care to prevent the harm to the plaintiff that has ensued. The liability arises out of the abnormal danger of the activity itself, and the risk that it creates, of harm to those in the vicinity.” *Id.* § 519 cmt. d.

124. Chouest et al., *supra* note 22, at 146.

125. 916 F.2d 1174 (7th Cir. 1990).

126. *Id.* at 1178.

127. *Id.* at 1175–76.

128. *Id.* at 1180–81.

129. “It is easy to see how the accident in this case might have been prevented at reasonable cost by greater care on the part of those who handled the tank car of acrylonitrile.” *Id.*

130. *Id.* at 1181.

131. Aaron Ries, *Railroad Tort Liability After the “Clarifying Amendment:” Are Railroads Still Protected By Preemption?*, 77 DEF. COUNS. J. 92, 101–02 (2010) (explaining the Second Circuit’s rejection of strict liability for hazardous materials train derailment).

of the strict liability doctrine in the context of railroad transportation of hazardous materials.¹³²

3. NEGLIGENT OPERATION

Although the FRSA extensively regulates railroad operations, courts on occasion will find that FRSA regulations do not cover an area of operation, and therefore certain allegations of negligent operation are not preempted by federal regulations. In *Bradford v. Union Pacific Railroad*,¹³³ the Western District of Arkansas considered whether Union Pacific Railroad was liable for damages caused by the collision and explosion of two Union Pacific trains in the rail yard that were carrying volatile chemicals.¹³⁴ The explosion killed one person trapped by the flames in her home adjacent to the tracks, damaged three homes, and destroyed multiple vehicles.¹³⁵ Plaintiffs brought suit against Union Pacific Railroad, asserting, among other things, that the railroad was negligent in its operation.¹³⁶ Union Pacific moved to dismiss the claims, asserting that the railroad was not liable due to preemption.¹³⁷ Union Pacific specifically argued that federal regulations governing the operation of trains within rail yards created a federal standard of care,¹³⁸ which subsumed state and local causes of action relating to rail yard operations.¹³⁹ After considering the significant breadth of FRSA preemption, the court found that, in this particular context, the “subject matter of negligent operation has not been substantially subsumed by regulations enacted pursuant to FRSA.”¹⁴⁰ More specifically, the court

132. O'REILLY, *supra* note 97, § 9.13, at 88.

133. 491 F. Supp. 2d 831 (W.D. Ark. 2007).

134. *Id.* at 833–34; *see also* NAT'L TRANSP. SAFETY BD., RAILROAD ACCIDENT BRIEF NO. DCA-06-FR-002, at 1 (2006), <http://www.nts.gov/investigations/AccidentReports/Reports/RAB0604.pdf> [<https://perma.cc/69M9-6LNS>]. (“[O]n October 15, 2005, [a] westbound Union Pacific Railroad (UP) train ZYCLD 132 collided with the rear of standing UP train MPBHG 15 in the UP rail yard in Texarkana, Arkansas. The collision resulted in the puncture of a railroad tank car containing propylene, a compressed flammable gas. . . . The flowing gas reached a house where an unknown ignition source ignited the gas, and the house exploded. The single occupant was killed. . . . A second, unoccupied, home was destroyed in the fire, and a wooden railroad trestle burned completely. Approximately 3,000 residents within a 1-mile radius of the punctured tank car were advised to evacuate the area. . . . Total damage was \$2.4 million”) (footnote omitted).

135. *Bradford*, 491 F. Supp. 2d at 834.

136. *Id.*

137. *Id.*

138. *See* 49 C.F.R. § 218.35 (2015).

139. *Bradford*, 491 F. Supp. 2d at 834.

140. *Id.* at 838.

found that the “scant regulation[s]”¹⁴¹ governing rail yard operations did not provide “a regulatory framework of sufficient weight and breadth . . . which displaced private regulation through civil lawsuits”¹⁴² and denied the motion to dismiss the negligent operation claims.¹⁴³

Bradford provides insight into the extent to which federal regulations may preempt a state based action against a railroad or other crude-by-rail operator. Preemption is limited to the circumstances where federal law creates a defined standard of care.¹⁴⁴ Thus, if a crude-train derailment arises out of a circumstance where federal regulations do not provide a regulatory framework of “sufficient weight and breadth,”¹⁴⁵ it is possible that a cause of action may survive preemption. These determinations will be fact specific and will turn on the relationship of the derailment event to the standards of care envisioned by the crude-by-rail regulatory framework. Case outcomes may also largely be determined by the court’s understanding of the extent of regulatory coverage relating to a particular circumstance—which arguably involves a subjective judgment.

4. NEGLIGENT INSPECTION

Properly functioning equipment is integral to the safe transportation of crude by rail, and regular inspections ensure that equipment is able to withstand the rigors of travel. Federal law requires inspections of freight cars “at each location where they are placed in a train,”¹⁴⁶ and railroads are required to appoint inspectors with “knowledge and ability to inspect railroad freight cars for compliance.”¹⁴⁷ Understanding the importance of equipment inspections for the proper functioning of a railroad, plaintiffs in train derailment

141. *Id.* (“The Court is not persuaded that this scant regulation provides a level of safety and security on par with that in [a previous case precedent finding FRSA preemption].”).

142. *Id.* at 837.

143. *Id.* at 839. The railroad eventually settled with the relatives of the decedent. *Family of Woman Killed in Derailment Will Get \$2 Million Settlement*, KTBS, <http://www.ktbs.com/story/22332186/family-of-woman-killed-in-derailment-will-get-2-million-settlement> [<https://perma.cc/Y3WD-X5HM>] (last visited Oct. 24, 2016).

144. *See CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 664 (1993).

145. *Bradford*, 491 F. Supp. 2d at 837.

146. *In re Derailment Cases*, 416 F.3d 787, 793 (8th Cir. 2005); *see also* 49 C.F.R. § 215.13 (2015).

147. § 215.11.

cases have asserted claims of negligent inspection, which caused or contributed to derailment events—albeit unsuccessfully.¹⁴⁸

The FRSA extensively regulates inspection requirements for railroads and other industry actors, which preempts state law causes of action. Specifically, regulations under the FRSA establish a “‘national railroad safety program’ intended ‘to promote safety in all areas of railroad operations in order to reduce deaths, injuries and damage to property resulting from railroad accidents.’”¹⁴⁹ As part of the program, inspectors are required to “determine the extent to which the railroads, shippers, and manufacturers have fulfilled their obligations with respect to inspection, maintenance, training, and supervision.”¹⁵⁰ Given the extensive coverage of inspection requirements included in FRSA regulations, courts have been reluctant to allow negligence inspection claims to withstand a preemption defense.

5. DEFECTIVE DESIGN AND MANUFACTURE

Suits premised on defective design or manufacture of equipment used in the transportation of crude by rail will fail if the equipment used by an actor complies with the federal standard, because the preemption clause in the HMTA specifically prohibits the imposition of any equipment standards beyond those prescribed by the law.¹⁵¹ However, if an actor is determined to have not complied with a federal standard for a product’s “assembly, design, or otherwise,” the preemption defense may fall away and give rise to common law causes of action premised on those defects.¹⁵² Courts have determined that allowing defective design suits to proceed in the face of preemption challenges is appropriate when the presence of a “damages remedy does not create an additional or different ‘requirement.’”¹⁵³ However, because actions that do not impose additional requirements for design are, at root, premised on the failure of an actor to comply with a federal standard, they involve substantially the same analysis as a suit alleging negligence per se.

Despite the federal preemption bar to state law causes of action against transporters of hazardous materials, plaintiffs continue to bring suits against railroads for defective design and manufacture of tank cars

148. See, e.g., *Union Pac. R.R. v. Progress Rail Servs. Corp.*, No. 8:10-cv-00038, 2013 WL 6328084 (D. Neb. June 25, 2013); *In re Derailment Cases*, 416 F.3d 787.

149. *In re Derailment Cases*, 416 F.3d at 793 (quoting § 212.101(a)).

150. § 212.101(b)(1).

151. 49 U.S.C. § 5125(b)(1)(E) (2012).

152. O'REILLY, *supra* note 97, § 9.13, at 88.

153. *Id.* (footnote omitted).

used in the transportation of hazardous materials.¹⁵⁴ For instance, plaintiffs injured by the 2013 Lac Mégantic Derailment brought suit against a rail car lessor for, among other things, the defective design of the tank cars employed to transport crude oil to the derailment site.¹⁵⁵ While that case never reached a verdict, nearly twenty-five companies named in the suit negotiated a settlement with the plaintiffs.¹⁵⁶ In the end, the rail car lessors contributed to a settlement fund despite the possibility that the claims against them would be preempted.¹⁵⁷

IV. THE EFFECT OF THE HHFT RULE ON THE DISTRIBUTION OF LIABILITY

The HHFT Rule ratchets up the requirements imposed on crude-by-rail operators,¹⁵⁸ and in so doing, increases the possibility that shippers, tank car lessor, terminal operators, and railroads may fail to comply with federal standards, thus giving rise to civil liability.¹⁵⁹ While commentators have convincingly argued that the federal standards for the transportation of crude by rail had been, for years,

154. See *Trimbur v. Norfolk S. Ry.*, No. 2:13-cv-0160, 2015 WL 4755205, at *6 (S.D. Ohio Aug. 10, 2015) (detailing multiple court holdings which found federal preemption to bar suits alleging defective design or manufacture of tank cars).

155. *Annick Roy ex rel. Jean-Guy Ueilleux v. Rail World, Inc.*, No. 13-cv-06192 (N.D. Ill. 2013) (case not published in Westlaw or LexisNexis databases. A copy of the complaint is on file with the author). This suit is one of nineteen wrongful death cases that were filed in Illinois which were transferred to the United States Bankruptcy Court for the District of Maine as cases related to the railway's bankruptcy. *In re Montreal Maine & Atl. Ry.*, No. 1:13-MC-00184-NT, 2014 WL 1155419, at *1 (D. Me. Mar. 21, 2014), *reconsideration denied*, 2014 WL 1569528 (D. Me. Apr. 18, 2014).

156. Giuseppe Valiante, *Quebec Judge Signs Off on \$450M Settlement for Lac-Mégantic Victims*, CANADIAN PRESS (October 13, 2015, 4:51 PM), <http://www.ctvnews.ca/canada/quebec-judge-signs-off-on-450m-settlement-for-lac-megantic-victims-1.2607947> [<https://perma.cc/Q5GA-Y9JG>] (“[R]oughly 25 companies that have agreed to contribute to the \$450 million.”).

157. *Id.* (“Canadian Pacific Railway . . . is the only company accused in the disaster to have refused to contribute to the package.”).

158. *HHFT Rule Summary*, *supra* note 80.

159. As one observer has noted, increasing regulatory requirements for railroads has the effect of increasing exposure of civil liability.

The prize of preemption forces railroads to walk a fine line. On the one hand, substantial federal regulation over a state law subject matter provides an enticing blanket protection from state tort liability. On the other hand, the [FRSA] enables plaintiffs to use deviations from federal standards of care as the basis for state tort claims. Railroads continue to seek the perfect level of federal regulation: enough to “substantially subsume” a subject area, but not so much that the regulation creates a minefield of duties waiting to be broken.

Ries, *supra* note 131, at 118.

inadequate to respond to safety concerns,¹⁶⁰ another less considered factor of the low federal standards for crude-by-rail was the impact on plaintiff's rights. With federal standards previously setting a low bar for crude-by-rail participants to clear, the likelihood that a plaintiff could successfully pursue civil remedies for injuries suffered in the preemption environment was as low as the bar set by the federal standard.¹⁶¹ With enhanced requirements for braking, speeds, tank car design, routing, packaging, reporting, and inspection, new possibilities for plaintiff recovery have been unlocked.¹⁶²

Each additional requirement imposed on the crude-by-rail industry carries different weight for each industry participant. Many requirements fall solely on one facet of the crude-by-rail industry.¹⁶³ For instance, train speed and routing requirements may only give rise to liability for railroads.¹⁶⁴ Packaging and testing requirements fall squarely on the shoulders of crude producers and terminal loaders.¹⁶⁵ Other aspects of the HHFT Rule create liability that spreads broadly across the industry. For instance, the effects of the enhanced tank car requirements will be felt by multiple actors, including tank car manufacturers, tank car lessors, crude oil producers, and the railroads.¹⁶⁶ This section of the Comment will analyze the impacts of the HHFT Rule on each of the industry actors involved in carrying

160. Since 2012, following a fiery explosion of DOT-approved tank cars in Cherry Valley, Illinois, the National Transportation Safety Board has recommended that the DOT upgrade tank car standards to mitigate the risk of explosive derailments. NAT'L TRANSP. SAFETY BD., RAILROAD ACCIDENT REPORT: DERAILMENT OF CN FREIGHT TRAIN U70691-18 WITH SUBSEQUENT HAZARDOUS MATERIALS RELEASE AND FIRE, CHERRY VALLEY, ILLINOIS, JUNE 19, 2009, at 90–91 (2009) [hereinafter RAILROAD ACCIDENT REPORT]; *see also* Press Release, Office of United States Senator Maria Cantwell, Cantwell Pushes USDOT Secretary for Mandatory Rules on Crude-by-Rail Safety (May 7, 2014), <https://www.cantwell.senate.gov/news/press-releases/cantwell-pushes-usdot-secretary-for-mandatory-rules-on-crude-by-rail-safety> [https://perma.cc/77DY-LMH5]; Press Release, Office of United States Senator Heidi Heitkamp, New DOT Rules on Tank Cars & Crude Oil are Needed to Improve Safety on the Rails (July 23, 2014), <http://www.heitkamp.senate.gov/public/index.cfm/press-releases?ID=985a59e0-507d-420c-8ac8-06eec037aae3> [https://perma.cc/KDQ8-8CK5] (Senator Heitkamp stated: “I have long said that safety should be everyone’s top priority, and to accomplish that, we need a holistic approach that brings all sides to the table – federal and local governments, and industry. Part of those efforts also included pressuring DOT to issue updated safety rules . . .”).

161. Ries, *supra* note 131, at 118.

162. HHFT Final Rule, *supra* note 82, at 26,644.

163. *Id.* at 26,646–47 (providing table for affected entities and requirements).

164. *Id.*

165. *Id.*

166. *Id.* at 26646 (providing table for affected entities and requirements).

crude by rail, and explain how the rule clarifies the distribution of liability in the event of a crude-train derailment.¹⁶⁷

A. Railroads

The HHFT Rule imposes additional speed restrictions for trains carrying substantial quantities of crude oil, a burden that the railroads will carry.¹⁶⁸ Negligence claims asserting excessive speeds will be preempted by the FRSA if the railroad is able to establish that it has complied with the applicable federal speed standard.¹⁶⁹ However, claims that establish a railroad failed to comply with the federal speed limit may survive a preemption challenge.¹⁷⁰ The updated HHFT train speed regulation clarifies that a railroad may be held liable for damages caused by a derailed train that exceeded the federal limit. Specifically, the regulation lowers the top speed for freight trains carrying crude oil from the maximum speed of 60 mph, to 50 mph in unpopulated areas and 40 mph in certain specified populated areas.¹⁷¹ Consequently, the distribution of liability for derailment events where trains traveled in excess of the federal speed limit will be clear. Railroads will be held to

167. Insurance and indemnification contractual provisions will have considerable effect on ultimate liability in a crude train derailment. A consideration of insurance and indemnification provisions requires a fact-specific analysis that must be conducted on a case-by-case basis. For the purposes of this Comment, insurance and indemnification provisions will not be considered. However, the analysis provided by this Comment is instructive regardless of contractual considerations, because although insurance contracts and indemnification provisions will ultimately determine who pays the bill in a civil claim, the source of liability will determine which way liability flows under insurance and indemnification provisions.

168. The HHFT Rule provides that

[a]ll trains are limited to a maximum speed of 50 mph. The train is further limited to a maximum speed of 40 mph while that train travels within the limits of high-threat urban areas . . . unless all tank cars containing a Class 3 flammable liquid meet or exceed the [heightened tank car standards] . . .

49 C.F.R. § 174.310(a)(2) (2015).

169. *CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 676 (1993) (holding that suits asserting common law claims for excessive speed may not be sustained if train was operating within the federal maximum speed, but leaving open the possibility of liability when train exceeds federal maximum).

170. Federal law preempts causes of action premised on state and local laws that, if successful, would impose additional restrictions beyond those laid out by the federal law. O'REILLY, *supra* note 97, § 9.13, at 88. A defendant may not be entitled to a preemption defense against a state law negligence per se claim if the plaintiff asserts that the defendant failed to comply with a federal standard, which by its nature, does not impose requirements on an actor beyond those required by federal law. *Id.*

171. § 174.310(a)(2). Specified high populations areas where the 40 mph speed limit applies are defined as high-threat urban areas (HTUAs) under section 1580.3.

account for any damage that can be attributed to its violation of the speed limit, and preemption will not bar recovery.

The HHFT Rule also imposes enhanced braking requirements on railroads that expose railroads to liability. The enhanced standards apply to trains carrying crude oil in excess of 30 mph and requires that railroads immediately deploy two-way end of train devices¹⁷² and distributed power systems¹⁷³ for all HHFTs.¹⁷⁴ By January of 2023, each high-hazard flammable train must be affixed with an ECP brake system.¹⁷⁵ Over time, the braking capabilities of high-hazard flammable trains will be significantly enhanced through the mandated deployment of superior braking technologies.¹⁷⁶ These enhanced braking technologies will hopefully improve the safety of crude-by-rail transportation, while also mitigating the consequences of derailments. Additionally, the enhanced braking requirements open railroads to liability. If a train does not carry one of the mandated braking technologies, the railroad may be held to account for damages from a derailment if a plaintiff is able to show that the absence of the braking technologies caused or contributed to damages.

172. Two-way EOT devices include two pieces of equipment linked by radio that initiate an emergency brake application command from the front unit located in the controlling (“lead”) locomotive, which then activates the emergency air valve at the rear of the train within one second. The rear unit of the device sends an acknowledgment message to the front unit immediately upon receipt of an emergency brake application command. A two-way EOT device is slightly more effective than conventional air brakes because the rear cars receive the emergency brake command more quickly in an engineer induced emergency brake application.

HHFT Final Rule, *supra* note 82, at 26,650.

173. Distributed power systems deploy a train engine at both the front end and back end of the train, so as to allow the back end engine to work in concert with the front end system to decelerate and halt the train. *Id.* “While DP is technically not a braking system, it can provide some enhanced braking during an emergency braking application over conventional braking systems because it provides an additional signal source to speed the application of air brakes.” *Id.*

174. § 174.310(a)(3)(ii).

175. *Id.*;

ECP brake systems simultaneously send an electronic braking command to all equipped cars in the train, reducing the time before a car's pneumatic brakes are engaged compared to conventional air brakes. . . . ECP brakes . . . significantly improves train handling by substantially reducing stopping distances as well as buff and draft forces within the train, which under certain conditions can result in a derailment.

HHFT Final Rule, *supra* note 82, at 26,650.

176. HHFT Final Rule, *supra* note 82, at 26,649.

B. Tank Car Owners and Lessees

Enhanced tank car standards will expose tank car owners and lessors to liability in the event a derailment event where the equipment employed in carriage fails to comply with enhanced United States Department of Transportation standards. Under the HHFT Rule, tank cars must comply with new and enhanced equipment standards in order to compliantly carry crude oil along the rails.¹⁷⁷ Under the previous law, crude oil was permissibly carried in tank cars that met the DOT-111 standard.¹⁷⁸ The United States Department of Transportation first adopted the DOT-111 tank car standard in the 1960s,¹⁷⁹ prior to any industry anticipation of significant carriage of crude oil by rail.¹⁸⁰ However, despite claims that DOT-111 tank cars are insufficiently safe to carry crude oil by rail,¹⁸¹ shippers routinely relied upon the DOT-111 fleet of tank cars to meet the increased call for crude oil shipments.¹⁸² Recognizing the inadequacies of the existing DOT-111 tank cars, the United States Department of Transportation issued increased standards for tank cars used in crude-by-rail transportation in the HHFT Rule and implemented a phase-out schedule for older DOT-111 tank cars.¹⁸³

177. *Id.* at 26,653–66.

178. *Id.*

179. *Enhancing Our Rail Safety: Current Challenges for Passenger and Freight Rail: Hearing Before Subcomm. on Surface Transp. & Merchant Marine Infrastructure, Safety & Security of the S. Comm. on Commerce, Sci. & Transp.*, 113th Cong. 85 (2014) (testimony of Cynthia Quarterman, Administrator, Pipeline and Hazardous Materials Safety Administration, United States Department of Transportation).

180. *See supra* note 15 and accompanying text.

181. For years, the National Transportation Safety Board had asserted that DOT-111 tank cars are unsafe for carrying flammable liquids due to their propensity to rupture in derailments. RAILROAD ACCIDENT REPORT, *supra* note 160, at 90–91. *See also* Press Release, Nat'l Transp. Safety Bd., NTSB Issues Urgent Recommendations Calling for Improved Rail Tank Cars to Carry Flammable Liquids Such as Crude Oil and Ethanol (Apr. 6, 2015), <http://www.nts.gov/news/press-release/Pages/pr20150406b.aspx> [<https://perma.cc/3QTF-KXQP>].

182. “DOT-111 tank cars make up about 69 percent of the national tank car fleet.” NAT'L TRANSP. SAFETY BD., SAFETY RECOMMENDATIONS R-12-5 through -8 and R-07-4, at 2 (2012) [hereinafter SAFETY RECOMMENDATION R-12-5], <http://www.nts.gov/safety/safety-recs/reclatters/R-12-005-008.pdf> [<https://perma.cc/T35Z-N7T6>].

183. Press Release, U.S. Dep't of Transp., DOT Announces Final Rule to Strengthen Safe Transportation of Flammable Liquids by Rail (2015), <https://www.transportation.gov/briefing-room/final-rule-on-safe-rail-transport-of-flammable-liquids> [<https://perma.cc/H7CK-HUAB>] (“New tank cars constructed after October 1, 2015, are required to meet the new DOT Specification 117 design or performance criteria. The prescribed car has a 9/16 inch tank shell, 11 gauge jacket, 1/2 inch full-height head shield, thermal protection, and improved pressure relief valves and bottom outlet valves. Existing tank cars must be retrofitted with the same key components based on a prescriptive, risk-based retrofit schedule (see table). As a result

As part of the HHFT Rule, the United States Department of Transportation created a new specification standard for tank cars used to carry crude oil. The new tank car specification standard, named the DOT-117, requires that the tank cars use higher grade steel and be installed with thermal protection systems.¹⁸⁴ The HHFT Rule requires all existing DOT-111 tank cars be retrofitted to meet the new standard according to a prescribed schedule in order to carry crude oil—with deadlines ranging from two to ten years from the effective date of the rule depending on the specifications of the existing tank car.¹⁸⁵ The HHFT Rule also requires that new tank cars constructed after October 1, 2015 meet enhanced DOT-117 design.¹⁸⁶

Because of the large turnover in rolling stock that is required by the rule, the likelihood that non-compliant tank cars will be used—either accidentally or intentionally—is significant. The new equipment standard for crude-carrying tank cars will impose a significant burden on tank car owners, especially given the fact that nearly seventy percent of the tank car fleet is comprised of non-compliant DOT-111 tank cars.¹⁸⁷ The Pipeline and Hazardous Materials Administration estimates that retrofitting existing tank cars in the American fleet will cost \$1.75 billion.¹⁸⁸ The Railway Supply Institute—which is the trade association that represents tank car manufacturers and lessors—estimates that its membership will spend over \$5 billion to add newly required features to existing cars.¹⁸⁹ That the updated regulations place significant pressure on the industry to meet the new, higher federal standard, increases the likelihood that a derailment event may involve a non-

of the aggressive, risk-based approach, the final rule will require replacing the entire fleet of DOT-111 tank cars for Packing Group I, which covers most crude shipped by rail, within three years and all non-jacketed CPC-1232s, in the same service, within approximately five years.”).

184. Thermal protection systems insulate the contents of a tank car from heat outside of the containerized environment which help prevent explosions in a crude train derailment. *See* NAT’L TRANSP. SAFETY BD., SAFETY RECOMMENDATIONS R-15-14 through -17, at 4 (2015), <http://www.nts.gov/safety/safety-recs/reclatters/R-15-014-017.pdf> [<https://perma.cc/8B2G-FL9A>] [hereinafter SAFETY RECOMMENDATIONS R-15-14]. The HHFT Rule requires each tank car to meet the federal standard for thermal protection systems, which calls for “sufficient thermal resistance so that there will be no release of any lading within the tank car, except release through the pressure release device when subjected to: (1) A pool fire for 100 minutes; and (2) A torch fire for 30 minutes.” 49 C.F.R. § 179.18 (2015).

185. HHFT Final Rule, *supra* note 82, at 26,648 (providing timeline for continued use of DOT-111 tank cars).

186. *HHFT Rule Summary*, *supra* note 80.

187. SAFETY RECOMMENDATIONS R-12-5, *supra* note 184.

188. HHFT Final Rule, *supra* note 82, at 26,649.

189. Press Release, Ry. Supply Inst., RSI-CTC Members Stand Ready to Act on Newly Issued US & Canadian Tank Car Regulations (May 1, 2015), <http://www.rsiweb.org/content.asp?contentid=228> [<https://perma.cc/4HED-ENQV>].

compliant car. In this way, the HHFT Rule increases the opportunity for plaintiff recovery due to an industry actor's failure to comply with federal standards for tank car equipment when shipping crude by rail.

C. Terminal Loaders and Shippers

Terminal loaders and shippers will also be exposed to additional liability from the HHFT Rule. Specifically, the new HHFT Rule requires that shippers implement and document a sampling and testing program for all crude oil products shipped by rail.¹⁹⁰ Additionally, shippers or their respective terminal loading facilities must certify to the Pipeline and Hazardous Materials Safety Administration that testing programs are in place, must document the testing and sampling program outcomes, and make information available to United States Department of Transportation personnel upon request.¹⁹¹

The purpose of the enhanced testing and documentation requirements are two-fold. First, the United States Department of Transportation aims to use the data provided by crude oil producers to better understand the chemical, vapor pressure, and volatility characteristic of crude oil that is produced in the emerging production areas in the United States, namely the Bakken and Eagle Ford formations. Reports following crude train derailments in Lac Mégantic and Casselton, North Dakota called into question the previously understood characteristics of the crude oil that is being pulled from the ground in Bakken Formation.¹⁹² Specifically, the reporting found evidence that the crude oil that is being produced in the United States is particularly volatile and explosive.¹⁹³ By better understanding the crude characteristics, the United States Department of Transportation aims to position itself to provide for further updates to the HHFT Rule if deemed necessary by the findings.

Like each of the other standards promulgated under the HHFT Rule, the new standard for testing and reporting may expose shippers to tort liability for failing to test, document, or report the contents of their carriage. This theory of liability has already played out in *In re Montreal Maine & Atlantic Railway*,¹⁹⁴ a wrongful death action

190. *HHFT Rule Summary*, *supra* note 80.

191. *Id.*

192. Lynn Cook, *Bakken Crude Is Highly Volatile, Oil Study Shows*, WALL STREET J. (May 14, 2014, 7:56 PM), <http://www.wsj.com/articles/SB10001424052702304908304579562471022167310> [<https://perma.cc/X2LZ-8DJF>].

193. *Id.*

194. No. 13-10670, 2015 WL 7431192 (Bankr. D. Me. Oct. 9, 2015), *adopted*, No. 1:15-mc-329-JDL, 2015 WL 7302223 (D. Me. Nov. 18, 2015).

stemming from the Lac Mégantic derailment that took place in 2013.¹⁹⁵ The liability exposure for the shippers of the crude oil (the firms that owned the crude oil) contributed tens of millions of dollars to a \$345 million settlement, causing the inference that shippers were liable to the victims for failing to properly label crude oil that exploded in the derailment.¹⁹⁶ With heightened standards created by the new rule, this will continue to be an avenue for recovery for plaintiffs injured by crude-train derailments.

CONCLUSION

The new HHFT Rule provides clarity regarding the distribution of liability in crude-train derailments, and also increases the opportunity for plaintiff recovery from a finding of negligence per se. In each crude-by-rail delivery, multiple actors combine efforts to bring oil from the well head to the refinery. Producers and rail terminal operators load, package, and label crude oil for delivery. Producers secure tank cars, often by leasing equipment from third party contractors, to prepare crude oil for railroads to carry. Tank car lessors manufacture, inspect, and maintain tank cars for their service. The railroads themselves carry the crude-loaded tank cars many miles from the oil producing region to refineries often located in different parts of the country. At each point in the process, different activities could possibly contribute to a crude-train derailment. In part recognizing the interconnectedness of industry actors in the crude-by-rail process, the HHFT Rule strengthens safety and risk mitigation requirements on each actor involved in the process—which has the effect of more clearly defining the responsibilities in the crude-by-rail process. Additionally, the HHFT Rule better enables persons injured by crude-train derailments to identify which actor was responsible for the crude-train derailment on account of failing to comply with a regulation. For these reasons, the HHFT Rule more clearly delineates responsibility and improves avenues for recovery when a federal standard of care was not met in the crude-by-rail process.

Despite the increased standards for crude-by-rail actors that were created by the HHFT Rule, preemption of most tort actions against transporters of hazardous materials remains a powerful obstacle to plaintiff recovery. If a defendant in a crude-train derailment case is able to show that it complied with the relevant federal standards, even

195. *Id.* at 84.

196. Russell Gold & David George-Cosh, *Oil Firms Agree to Pay Millions in Compensation for Quebec Train Blast*, WALL STREET J. (June 10, 2015, 9:36 PM), <http://www.wsj.com/articles/big-oil-firms-put-millions-into-compensation-fund-for-train-blast-1433980259> [<https://perma.cc/74QY-5PBY>].

though the actor caused the injury that was suffered by the plaintiff, the defendant will likely be protected by the federal preemption of state-rooted causes of action. Because hazardous materials transportation is a highly regulated industry, which creates little room for non-preempted state law tort action, industry participants may cause harm but nevertheless be shielded from liability so long as they comply with federal standards.¹⁹⁷ The bottom line: if an industry actor kills or injures a person in a crude-train derailment, but nevertheless follows the rules in the process, it may be shielded from liability.

In the wake of the crude-by-rail boom, courts will be called upon to address the tension between the need for remedy for persons injured by crude-train derailments and the steep limitations for recovery that are imposed upon plaintiffs by the federal preemption of state law causes of action. Murphy's Law tells us that train explosions will continue in new and unanticipated ways. A train derailment like the one that occurred in Casselton, North Dakota could occur next in a highly populated area causing even greater destruction and loss. Given the record amount of crude oil that is being carried along the rails in the United States, and the continued pace of crude-by-rail transportation, courts will be forced to further define the contours of federal preemption in crude-train derailments. The question for some future court to answer is if the new HHFT Rule is able to provide the appropriate remedy for persons injured by the next high profile derailment.

197. See *In re Amtrol Holdings, Inc.*, 532 F. App'x 316 (3d Cir. 2013).