EARTHJUSTICE

February 16, 2023

Via FedEx, electronic mail, and electronic filing to Regulations.gov

Secretary Pete Buttigieg
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Docket Management System
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Ave., SE
Washington, D.C. 20590-0001
PHMSA Docket No. 2017-0102, www.regulations.gov

Re: Failure to Act on Pending Administrative Appeal of Trump Administration Rule Repealing Brake Requirements

Dear Secretary Buttigieg:

In October 2018, Earthjustice, Waterkeeper Alliance, Sierra Club, Riverkeeper, Washington Environmental Council, and Stand filed an administrative appeal of the final rule that removed the requirement to have electronically-controlled pneumatic ("ECP") brake systems for trains carrying hazardous, flammable materials.[1] We challenged the repeal of the braking system requirements in part based on violations of notice-and-comment rulemaking requirements and because the agency relied on an out-of-date regulatory impact analysis whose assumptions and estimates had been undercut by increases in volatile crude oil being transported by rail. To remedy these and other legal violations, we asked the Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHMSA") and the Federal Railroad Administration to vacate the brake repeal decision and the analyses on which it was based, to prepare an updated regulatory impact analysis, and to provide the opportunity for meaningful public engagement.

[1] *Hazardous Materials: Removal of Electronically Controlled Pneumatic Brake Systems for High-Hazard Flammable Unit Trains,* Docket No. PHMSA 2017-0102; 83 Fed. Reg. 48,393 (Sept. 25, 2018).

The response to our appeal from the Department has been silence, despite the fact that PHMSA regulations require a response of some sort from the agency within 90 days. 49 C.F.R. § 106.130. We frankly expected little response from the Department under the prior administration—after all, it had just eliminated the updated brake requirements—but the silence has continued well into Biden administration. It should not take a tragedy like the recent hazardous train derailment in Ohio and the devastation it brought to the community of East Palestine, with water contamination, air pollution, and harm to human health, to turn attention to this issue again. The pending administrative appeal presents an opportunity for your department to review and make a new determination of whether the costs of modern braking systems for high hazardous flammable trains outweigh the benefits of accident and harm prevention.

Our appeal, and the challenged rule that repealed ECP brake system requirements, were primarily focused on unit trains carrying large amounts of crude oil, as that was the focus of increased rail traffic and accidents throughout the country and Canada at the time. It is not clear whether the Norfolk Southern train carrying hazardous and flammable materials in Ohio would have been covered by the repealed brake system requirement. What is clear, however, is that the Department of Transportation has failed to require up-to-date, modern brake systems for most trains carrying hazardous materials, and you have to opportunity to make a start to turn that situation around.

The original administrative appeal, as well as supplemental information submitted to PHMSA, is attached to this letter and can be found on the regulatory docket at https://www.regulations.gov/search?filter=phmsa-2017-0102. We seek an assurance that the Department will provide an expeditious response, albeit long overdue, to our administrative appeal. If we do not hear from you with a timeline for such a response, we will consider taking legal action, but we would prefer to work this out with you.

Please do not hesitate to contact us about this matter.

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Enclosures

Attachment 1

EARTHJUSTICE

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October 25, 2018

Via electronic filing to:
www.regulations.gov (PHMSA 2017-0102)

Via FedEx to:
(FedEx tracking No.: 7735 6617 2026)
Docket Management System
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Re: Administrative Appeal of the Final Rule: "Hazardous Materials: Removal of Electronically Controlled Pneumatic Brake Systems for High-Hazard Flammable Unit Trains," Docket No. PHMSA 2017-0102 (HM-251F), 83 Fed. Reg. 48,393 (Sept. 25, 2018)

INTRODUCTION AND SUMMARY

Pursuant to 49 C.F.R. §§ 106.55 and 106.110, Earthjustice, Waterkeeper, Sierra Club, Riverkeeper, Washington Environmental Council, and Stand administratively appeal the Final Rule: "Hazardous Materials: Removal of Electronically Controlled Pneumatic Brake Systems for High-Hazard Flammable Unit Trains," Docket No. PHMSA 2017-0102 (HM-251F), 83 Fed. Reg. 48,393 (Sept. 25, 2018). In 2015, the Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHSMA"), in coordination with the Federal Railroad Administration ("FRA"), adopted a rule designed to improve safety of shipping crude oil and other flammable fuels and liquids in long unit trains. The final rule required high-hazard flammable unit trains ("HHFUTs"), which have 70 or more train cars loaded with flammable liquids, to have electronically controlled pneumatic ("ECP") brake systems when they travel in excess of 30 miles per hour. 83 Fed. Reg. 48,393 (Sept. 25, 2018). "Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains" ("Tank Car Rule"), Docket No. PHMSA 2012-0082 (HM-251), 80 Fed. Reg. 26,644 (May 8, 2015).

Three months later, Congress passed the Fixing America's Surface Transportation Act ("FAST Act"), Pub. L. No. 114-94, 129 Stat. 1686 (Dec. 4, 2015), an Act that, among other things, compelled the FRA to re-study the efficacy and costs of ECP brake systems and repeal the ECP requirements if it made certain determinations. On September 25, 2018, the FRA repealed the ECP rule, based on a 2017 updated Regulatory Impact Analysis ("RIA").

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This appeal raises three issues: (1) violations of notice-and-comment rulemaking requirements; (2) reliance on an out-of-date regulatory impact analysis whose assumptions and estimates have been undercut by recent increases in crude-by-rail traffic; and (3) violation of controlling law that directed certain testing to be conducted that was not conducted. To remedy these violations, we ask PHMSA and FRA: (1) to vacate the October 2017 updated regulatory impact analysis prepared by PHMSA and FRA, the December 2017 DOT cost benefit determination based on it, and the September 2018 PHMSA repeal of its May 2015 ECP brake system requirement; and (2) to prepare an updated regulatory impact analysis, after ensuring the statutorily required testing is conducted and incorporated and with an opportunity for public comment.

BACKGROUND

I. THE 2015 FINAL RULE REQUIRING ECP BRAKE SYSTEMS BASED ON THE DETERMINATION THAT THEIR BENEFITS OUTWEIGH THE COSTS.

ECP brakes provide an electronic brake signal instantaneously to each train car throughout the train, allowing cars to brake more quickly than with conventional air brakes. It is undisputed that ECP brakes can reduce the number of derailments and the impacts of those derailments that do occur. ECP brakes reduce stopping distances and longitudinal in-train forces, which can, in turn, reduce the number of derailments and the number of tank cars that derail in incidents.

To assess the benefits of ECP braking systems compared to other braking systems, FRA commissioned simulations, testing, and modeling that found ECP brakes are expected to reduce the number of cars punctured in a derailment by up to 30% and the amount of oil spilled by nearly 20%. The Department of Transportation ("DOT"), in its 2015 regulatory impact analysis, found that the safety benefits of ECP brakes outweighed their costs. Accordingly, the 2015 final rule required a phase-in of ECP brake systems beginning in January 2021 for HHFUTs carrying crude oil at speeds in excess of 30 miles per hour and for HHFUTs carrying other hazardous fuels in 2023.

II. THE CONGRESSIONAL REQUIREMENT TO STUDY AND TEST ECP BRAKING SYSTEMS AND UPDATE THE REGULATORY IMPACT ANALYSIS.

Congress passed the Fixing America's Surface Transportation Act ("FAST Act"), Pub. L. No. 114-94, 129 Stat. 1686 (Dec. 4, 2015), in December 2015, which, *inter alia*, addressed the 2015 rule's requirement that HHFUTs carrying crude oil have ECP brakes. The Fast Act directed the Secretary of Transportation to commission various studies of the efficacy and costs of ECP braking systems, to redo its regulatory impact analysis ("RIA"), and to determine whether the benefits of ECP braking systems outweigh their costs. The FAST Act directs the Secretary to rescind the ECP brake requirement if she does not make an affirmative finding that the benefits outweigh the costs.

Specifically, the FAST Act required two studies. First, it directed the Comptroller General to conduct an independent evaluation of ECP brake systems and the DOT's research and

analysis of the costs, benefits, and effects of ECP brake systems. § 7311(a). It specified six topics that the Comptroller General (through the General Accountability Office ("GAO")) had to address, including the safety benefits of ECP brakes compared to other braking systems and international experiences with ECP brakes. *Id*.

Second, the FAST Act called for emergency braking application testing by the National Academy of Sciences ("NAS"). It directed the Secretary to enter into an agreement with the NAS to conduct testing under various scenarios and to compare the impact of ECP brakes and other braking systems on the number of cars that derail and puncture and stopping distances, among other things.

After completion of the GAO evaluation and the NAS testing, the Act directed the Secretary to "fully incorporate the results" and update the regulatory impact analysis of the costs, benefits, and effects of ECP brake system requirements. § 7311(c)(1)(A). The Act required the Secretary to make the updated RIA available for public comment for no more than 30 days and thereafter to make the final updated RIA available on its website. § 7311(c)(1)(B)-(C). The Act directed the Secretary to "determine, based on whether the final regulatory impact analysis described in paragraph (1)(C) demonstrates that the benefits, including safety benefits, of the applicable ECP brake system requirements exceed the costs of such requirements, whether the applicable ECP brake system requirements are justified." § 7311(c)(2)(A). Finally, the Act mandated that if the ECP brake system requirements were justified, the Secretary had to publish in the Federal Register the determination and reasons for such determination; if the Secretary did not public such a determination, the Act required the Secretary to repeal the ECP brake system requirements. § 7311(c)(2)(B)-(C).

GROUNDS FOR APPEAL

I. PHMSA ACTED UNLAWFULLY BY ISSUING AND MAKING THE REPEAL EFFECTIVE IMMEDIATELY WITHOUT AFFORDING THE PUBLIC AN OPPORTUNITY TO COMMENT.

Federal agencies, like PHMSA, must adopt administrative rules through notice and comment rulemaking. They must propose regulations or repeals of regulations with sufficient detail to enable the public to know the parameters of what is being proposed and to provide meaningful comments. 5 U.S.C. § 553. Moreover, the FAST Act expressly makes notice-and-comment procedures applicable to DOT's update of the 2015 RIA. § 7311(c)(1)(B)-(C).

A. Inadequate Opportunity for Public Comment on the Updated RIA.

PHMSA prepared an updated RIA before the NAS completed its review, and provided one, extremely short opportunity for public comment on its update to the 2015 RIA. On October 16, 2017, PHMSA published a notice in the Federal Register that it had released an updated RIA, and stated that comments must be received by November 1, 2017. 82 Fed. Reg. 48,006 (Oct. 16, 2017). Given the role ascribed to the updated RIA by the FAST Act, this comment period had an outsized role to play. However, not only was this comment period incredibly short, but even more importantly, most of the statutorily required reports were not available during the comment

period. Indeed, the issues presented in this appeal could not have been addressed in public comments on the draft update of the RIA since they pertain to developments that have occurred since its release.

The FAST Act directed DOT to "fully incorporate the results of" both the GAO evaluation and NAS testing in an updated the RIA, and then make the updated RIA, incorporating the GAO and NAS results, available for public comment. § 7311(c). It prescribed timelines that made it clear the RIA would be updated after completion of the GAO evaluation and the NAS testing. Specifically, the GAO and NAS had to transmit their final reports within 18 months of the enactment of the FAST Act, and the Secretary would then have 90 days after the reports' issuance to "fully incorporate" the results into an updated RIA that would be made available for public comment. § 7311(a)(3) (GAO report no later than 18 months after enactment); § 7311(b)(1)(B) (NAS report no later than 18 months after enactment); § 7311(c)(1)(A) (fully incorporate GAO and NAS results in updated RIA no later than 90 days **after** the report date). The FAST Act directed DOT to make the updated RIA available for public comment "after completion of the updated analysis" incorporating the GAO and NAS results into the updated RIA. § 7311(c)(1)(B).

The most significant change made in the updated RIA entailed dramatically lowering the estimates of crude-by-rail traffic. PHMSA and FRA changed their approach in response to GAO recommendations, particularly a letter report from GAO to a U.S. Senator. While the draft RIA update stated that this letter was being made available in the docket, PHMSA-2017-0102-0014, at 13, it was not. In fact, it still is not in the docket for the repeal rulemaking. Moreover, the GAO report prepared in direct response to the FAST Act was not added to the docket until after the repeal was finalized in September 2018. PHMSA-2017-0102-0042 (added to the docket October 5, 2018).

In addition, as discussed below, DOT and the NAS agreed that the NAS would not do the testing and analysis mandated by the FAST Act. They chose instead to pursue an alternative approach that fell short of the statutory directives. Moreover, the content of the NAS review aside and the fact that the final NAS report was not made public until after the comment period made it impossible for the public to comment on what the NAS actually did (even though it was not what the FAST Act envisioned). In October 2017, PHMSA and FRA prepared the updated RIA and released it for public comment <u>before</u> they had received the final NAS report. The draft of the updated RIA reveals: "FRA is awaiting a final report from NAS on the testing and modeling FRA performed and will consider the final NAS report during the public comment period." PHMSA-2017-0102-0014, at 5. While the final update, released in December 2017, addressed the NAS report, the public never had an opportunity to weigh in on the extent to which the NAS complied with the FAST Act or the contents of the report it submitted. PHMSA-2017-

0102-0036, at 25-27.[1]

B. No Opportunity for Public Comment on the Determination or Repeal.

In December 2017, DOT issued its determination that the benefits of ECP brakes did not outweigh their costs and therefore the regulatory ECP brake system requirement was not justified. It did not seek public comments at that time, but indicated that it would initiate a rulemaking to repeal the regulatory requirement. 82 Fed. Reg. 58,582 (Dec. 13, 2017). It did not.

In September 2018, PHMSA published a final rule repealing the ECP brake requirement based on its 2017 economic justification determination. PHMSA did not provide an opportunity for public comment because it believed its repeal of the brake requirement to be nondiscretionary under the FAST Act. 83 Fed. Reg. at 48,396. It made the rule effective upon publication for the same reason. *Id*.

PHMSA is mistaken for two reasons. First, the FAST Act mandated certain NAS testing and analysis, which NAS did not do, with DOT's agreement. Since the final NAS report was not made available for public comment in October 2017, the public never had an opportunity to comment on this key aspect of compliance with the FAST Act. Indeed, the final NAS report was not added to the docket until after the repeal. PHMSA-2017-0102-0040 (posted October 5, 2018).

Second, PHMSA waited nearly one year to initiate the rulemaking. During that time crude oil shipments have increased substantially, undercutting the most significant change DOT had made in the RIA, as explained in Section II below. In 2017, DOT candidly admitted that the benefits of ECP brakes could outweigh their costs if crude-by-rail traffic increased. *See infra* at __. Given this concession and the intervening developments, PHMSA could not rely on what has quickly become a stale RIA as the basis for the repeal without affording the public an opportunity to comment on these trends and without considering whether its assumptions and determination remain valid.

By proceeding in this fashion, DOT shut the public out of the process of ensuring compliance with the FAST Act and the credibility and currency of its updated RIA. This is an independent legal violation of the clear requirements of the FAST Act that warrants a new opportunity for public comment on the updated RIA, the recent data on crude-by-rail traffic, and the NAS reports.

[1] The final NAS report was belatedly added to the docket after the repeal, its earlier report is still not in the docket. An earlier NAS report that reviewed FRA's proposed testing and analysis still has not been included in the docket. National Academies of Sciences, Engineering, and Medicine. 2017. *A Review of the Department of Transportation Plan for Analyzing and Testing Electronically Controlled Pneumatic Brakes.* Washington, DC: The National Academies Press. http://doi.org/10.17226/24698.

II. RECENT VOLUMES AND PROJECTIONS OF CRUDE-BY-RAIL TRAFFIC CONTRADICT DOT'S LOWERING OF THE ESTIMATES USED IN THE UPDATED RIA.

In its original report, the GAO recommended that DOT take into account potential uncertainties, including those about future fuel prices and future crude oil and ethanol rail traffic. GAO at 49. Subsequently, a U.S. Senator sought additional GAO guidance based on his questions about relying on the crude-by-rail and derailment data from the high levels of 2015 and urged incorporation of the lower levels from 2016-2017. In its letter report, GAO agreed with the Senator and urged DOT to use ranges and averages rather than data from a single point of time. GAO, Letter to Senator Thune: 2015 Electronically Controlled Pneumatic Brake Rule: Comparison of DOT Forecasts for Selected Data Points for 2015 and 2016 to Preliminary Data for Those Years (May 31, 2017), at https://www.gao.gov/assets/690/684998.pdf.

In the updated RIA, DOT heeded these recommendations. It revised its forecasts for the size of the fleet by including low and high estimates and by basing its estimates on the fleet size over multiple years. Rather than base its forecasts on the high end of past experience, it used averages to reflect the boom-and-bust cycle observed in crude-by-rail train shipments over the past half-decade.

> Rail can access new oil fields or new sections of oil fields faster than pipelines, and PHMSA and FRA reasonably assume that what may drive crude oil by rail volumes is a short-term spike in volume as new oil fields open and are served by rail, followed by a tapering off as pipeline infrastructure is built out to service those fields at a lower transportation cost. Thus, crude-by-rail volumes may exhibit peaks and valleys, but over time these peaks and valleys largely cancel one another out and it is not possible to perfectly predict when they may occur. However, an average that includes both peaks and valleys would provide a reasonable expected volume in any given year. This methodology results in a forecast using a constant annual crude oil projection for all years from 2017-2037.

PHMSA-2017-0102-0035, at 24.

DOT made a different projection using two different methodologies that gave greater weight to the valleys than the 2015 RIA. Both methodologies led to a substantial reduction in the estimated number of carloads that would be transported in HHFUTs and need ECP brakes. The five-year average produced a constant 417,477 crude carloads per year. The other model, called the linear model, produced a peak volume of 659,660 in 2030. *Id*. at 25. Using a similar model before the recent changes, the 2015 RIA forecast a high of 1,004,852 carloads of crude oil to be transported in the peak year – 2021. The updated 2017 RIA reduced the peak volume by 32%. *Id*. at 83.

The updated RIA acknowledged the inherent uncertainties and precarious nature of its fleet forecasts:

> PHMSA and FRA recognize a great degree of uncertainty exists regarding future carloads of crude and ethanol shipped by rail. Recently the shipment of crude by rail has been very volatile. *Id.* at 20.
>
> One of the commenters suggested that the use of a timeframe for establishing a boom and bust forecast could be improved because there is no way of knowing how long the current crude oil trough might last. PHMSA and FRA agree that there is uncertainty in this estimate as well, however; we believe that this forecast is a reasonable scenario. *Id*. at 21.

The lower forecasts of crude-by-rail traffic, in turn, led to lower estimates of derailments and lower volumes of oil spilled. They played a determinative role in leading to an estimate of benefits that was greater than the cost estimate. Whatever merit there might be in using averages or accounting for peaks and valleys when dealing with an industry that regularly goes through boom-and-bust cycles, DOT appears to have employed methodologies that can quickly become out of date. It lowered its fleet forecasts based on the fleet size in the most recent years, which it acknowledged might be unwarranted if oil prices and rail traffic volumes surge.

Throughout the conclusion, the updated RIA recognizes that the opposite conclusion would be supported if crude-by-rail traffic grew significantly:

> While the estimates within the revised Final Rule analysis represent the most up to date information that is available to PHMSA and FRA, should the number of HHFUT carloads increase back to the levels that were predicted in the 2015 Final Rule analysis, it could be possible that the railroad industry would see higher amounts of safety and business benefits than what is presented within this revised Final Rule analysis. *Id.* at 89.
>
> An increase in the number of carloads may dictate that once again, new tank cars and locomotives would be needed. Purchasing new locomotives with an ECP overlay system would decrease the costs compared to retrofitting locomotives. Decreasing these costs could enable the safety benefits to exceed the total costs. *Id*. at 90.
>
> Any future surge in oil prices may have effects on numerous assumptions of this analysis. Changes in these assumptions would change the number of carloads needed and therefore also affect the estimated safety and business benefits. *Id*.
>
> In conclusion, if the number of carloads were to increase, and come closer to 2015 forecasted carloads, then the safety benefits would increase greatly and it is likely that the total benefits would be greater than the total costs. As the number of carloads drives the calculations for most of the costs and benefits used within this analysis, any increase has the potential to significantly alter the costs and benefits and could bring the relative estimated costs and benefits analysis closer to the results presented in the 2015 Final Rule. *Id.*

Just one year after the ink has dried on the updated RIA, the number of carloads carrying crude oil has increased dramatically. A key driver has been an enormous increase in the volume

of Canadian crude oil being shipped by train into the United States. Canada's National Energy Board reported a record of 206,624 barrels per day in July 2018, double the volume one year earlier. https://www.neb-one.gc.ca/nrg/sttstc/crdlndptrlmprdct/stt/cndncrdlxprtsrl-eng.html. A recent *Washington Post* article describe the trend and its projected continuation.

> The spike is dramatic. Before 2012, little oil was shipped by rail out of Canada. This past June, the country's energy regulator announced a record-breaking average of 200,000 barrels per day exported that way. The Paris-based International Energy Agency estimates that the 2019 annual average will reach 390,000 barrels per day.

https://www.washingtonpost.com/world/the_americas/as-canadian-pipeline-plans-falter-more-oil-is-moving-by-rail--prompting-familiar-fears/2018/10/07/6541980a-c0e3-11e8-9f4f-a1b7af255aa5_story.html?utm_term=.be78ee4fdc3c.

A few conversions are necessary to compare 200,000 and 390,000 barrels/day to 417,000 and 660,000 carloads/year of crude.

- A tank car carries on average 691 barrels (according to AAR).[2]
- The five-year average of 417,477 carloads/year is 1144 carloads/day or 790,504 barrels/day.
- The peak volume of 659,660 carloads/year is 1807 carloads/day or 1,248,637 barrels/day.
- 200,000 barrels/day in July 2018 is 25% of the five-year average.
- 390,000 barrels/day projected for 2019 is 49% of the five-year average.

This means that the volume of Canadian crude exports by rail to the United States in July 2018 comprises 25% of the five-year average, and the projected 2019 level of 390,000 would be 49% of that average. Since it appears that DOT's fleet forecasts focused exclusively on U.S. production and ignored Canadian crude shipped by rail, these volumes were excluded from the fleet forecasts used in the updated RIA, even though they contribute to crude-by-rail traffic volumes and risks of derailments, oil spills, damage to homes and water bodies, and possibly injuries and even deaths.

The Canadian Association of Petroleum Producers projects that crude oil rail traffic will remain at high levels and continue to grow over the foreseeable future:

> Existing pipeline infrastructure to transport crude oil production is at capacity and it is uncertain when additional pipeline capacity will become available. Currently, rail service is struggling to meet the increased demands being placed on this mode of transportation by western Canadian crude oil producers. By 2030, supplies of crude oil from Western Canada are expected to increase by 1.5 million b/d. By 2035, the gap between anticipated crude oil supplies and available pipeline capacity increases to 2.0 million b/d.

[2] https://www.aar.org/wp-content/uploads/2018/07/AAR-US-Rail-Crude-Oil-Traffic.pdf.

2018 Crude Oil Forecast: Markets and Transportation at 33. https://www.capp.ca/publications-and-statistics/publications/320294. The projected 1.5 million barrels/day for 2030 would be nearly double the five-year average and would exceed the peak estimate for 2030. In other words, if these predictions prove to be true, the volumes of crude carried across the U.S. by rail and the risks will be far higher that the updated RIA's projections.

The growth in crude-by-rail traffic is also due, in part, to a resurgence in shipments originating in the United States. *See* https://www.spglobal.com/platts/en/market-insights/latest-news/oil/091018-refinery-margin-tracker-us-crude-by-rail-makes-a-comeback. In its comparison of U.S. weekly rail traffic for this October and one year ago, the Association of American Railroads reported that crude oil carloads continue a "meteoric rise." http://trn.trains.com/news/news-wire/2018/10/17-aar-crude-oil-carloads-continue-meteoric-rise (Oct. 17, 2018).

The updated RIA employed a methodology that appears to be as volatile as the oil market. Its fleet projections fell when DOT gave greater weight to the valleys experienced in 2016, which in turn, reduced the benefits from ECP brakes. Just one year later, current rail traffic and the projected trends call both the RIA's methodology and its overall benefits assessment into serious question. As DOT acknowledged, as the number of carloads comes closer to the 2015 forecasted carloads so too will the safety benefits and "it is likely that the total benefits would be greater than the total costs" and the increase "could bring the relative estimated costs and benefits analysis closer to the results presented in the 2015 Final Rule." PHMSA-2017-0102-0035, at 90.

The 2017 updated RIA concedes that its fleet forecast and assessment of benefits could become outdated. One year has proven this concession to be accurate. PHMSA cannot rely on the updated, inaccurate RIA to repeal the ECP brake system requirement. Instead, it must redo the updated RIA to reflect Canadian exports of crude oil shipped by train, as well as increases in U.S. originated crude-by-rail traffic. EPA should employ a methodology that will vary less with each boom or bust in oil traffic on the rails or otherwise remain valid over the 20-year period it covers.[3]

III. THE DEPARTMENT OF TRANSPORTATION FAILED TO COMPLY WITH THE FAST ACT DIRECTIVES FOR NAS TESTING.

The FAST Act directed the Secretary of Transportation to enter into an agreement with the NAS to "complete testing of ECP brake systems during emergency braking application, including more than one scenario involving the uncoupling of a train with 70 or more DOT–117

[3] The updated RIA used a 20-year time horizon even though the tank cars and locomotives will have a longer life than 20 years. Comments on the proposed rule that included the ECP brake system requirement and its RIA raised concerns about using a time line for investments that will last well beyond that time frame. PHMSA-2012-0082. DOT did not respond to or address this issue in its final RIA on the 2015 rule and has repeated the same disconnect between time frame of analysis and life time of cars in its 2017 updated RIA.

specification or DOT–117R specification tank cars." § 7311(b)(1)(A). It allowed NAS to contract with independent experts as long as they are not railroad carriers or entities funded by such carriers. § 7311(b)(2). The FAST Act further directed the NAS to "ensure that the testing objectively, accurately, and reliably measures the performance of ECP brake systems relative to other braking technologies or systems, such as distributed power and 2-way end-of-train devices, including differences in

> (A) the number of cars derailed;
> (B) the number of cars punctured;
> (C) the measures of in-train forces; and
> (D) the stopping distance."

§ 7311(b)(3). The FAST Act authorized funding the testing under two alternative sources with no cap on the expense. § 7311(b)(4).

A. The NAS Did Not Conduct A Study That Conformed To The FAST Act's Specifications.

In February 2016, FRA asked the NAS to agree to perform the testing as specified in the FAST Act. PHMSA-2017-0102-0004. In March 2016, the NAS informed FRA that it "cannot agree to perform the testing" as detailed in the FRA letter and the FAST Act. PHMSA-2017-0102-0011 at 1. In response to FRA's question regarding the total cost of performing the testing, the NAS stated:

> We are not able to provide a definitive answer to the question. Preliminary estimates provided by staff of the Association of American Railroads (AAR) suggest that the cost of a minimal set of tests within the time frame specified in Section 7311(b) would exceed $100 million.

PHMSA-2017-0102-0011 at 1. In response to whether it is feasible to complete the testing in the specified time frame, the NAS again indicated it did not have a definitive answer, but raised factors that might make it unlikely. It stated that we "are not the right organization to take on the task of performing the testing." *Id*. at 2.

DOT conducted no independent investigation into whether the mandated testing could be done or the estimated costs. It, like NAS, seemed to take AAR at its word as to the high cost. Nor did DOT explore whether the testing could be conducted if the time line were extended, even though NAS eventually undertook a review that ran past the statutory deadline. Instead, based solely on the NAS letter relaying AAR's views, "DOT determined it would be impossible to perform the identified crash tests." Updated RIA at 5. DOT referred to budgetary constraints, but it never assessed whether adequate funds could be obtained from the sources of funding specified in the FAST Act.

B. The NAS Review Fell Far Short of the NAS Mandates.

As an alternative, the NAS proposed: (1) to advise FRA on its approach to testing ECP brakes; and (2) subsequently to review detailed testing specifications developed by FRA and the final results of the testing. *Id*. FRA agreed to this proposal.

This alternative fell short of what the FAST Act mandated and intended. Leading up to the FAST Act, AAR had conducted its own modeling as a counter to FRA's simulations and modeling. Not surprisingly, AAR found ECP brakes less effective compared to other braking systems, while FRA found the opposite. NAS, A Review of the Department of Transportation Plan for Analyzing and Testing Electronically Controlled Pneumatic Brakes: Letter Report, at 11-19 (Feb. 17, 2017) (*supra* at 4 n.1). The FRA and AAR based their studies on different assumptions and different endpoints. FRA's testing and modeling focused on the number of cars that punctured in derailments. AAR assessed the total energy dissipated in the derailment and the number of cars reaching the point of derailment or the stopping distance.

The FAST Act directed the NAS to ensure the testing "objectively, accurately, and reliably measures the performance of ECP brake systems relative to other braking technologies or systems" and to address "differences in

(A) the number of cars derailed;
(B) the number of cars punctured;
(C) the measures of in-train forces; and
(D) the stopping distance."

§ 7311(b)(3). Congress sought to put an end to the controversy over dueling metrics, yet despite its clear command that is not what happened.

The NAS did not adhere to the scope of work required by the FAST Act. It limited its review to FRA's testing methodology. It addressed "the number of cars punctured," but it ignored "the measures of in-train forces" and "the stopping distance."

Because DOT acceded to the NAS's refusal to do what the FAST Act mandated based on the views of AAR, it lacked the NAS testing that Congress directed it to "fully incorporate" into the updated RIA. § 7311(c)(1)(A). Moreover, as explained above, DOT prepared the updated RIA before obtaining the final NAS report and did not fully incorporate that report into the update. While it did respond to the NAS report in its response to comments in the final update, it did not, nor could it, fully incorporate the results of the testing that Congress mandated in the FAST Act because that testing was never done. Its updated RIA and the determination and repeal based on it are, in fact, contrary to the FAST Act.

CONCLUSION AND RELIEF REQUESTED

For these reasons, the updated RIA, 2017 determination regarding benefits and costs of ECP brakes, and the 2018 repeal of the 2015 ECP brake regulatory requirements are unlawful and must be vacated. First, they were adopted in violation of the notice-and-comment

rulemaking requirements of the APA and the FAST Act. Second, the updated RIA had become outdated by the time of the repeal, succumbing to its own caution that its fleet forecasts and benefits assessments would become invalid if crude-by-rail traffic increased, which has happened over the past year. The repeal could not rely on the 2017 updated RIA without revising its fleet forecasts and overall benefits and cost assessments and comparison. Third, the Secretary failed to enter into an agreement with the NAS to conduct the tests mandated in the FAST Act; the updated RIA is deficient since it legally was required to fully incorporate the results of that testing and could not.

To remedy these violations, we ask PHMSA and FRA to: (1) vacate the 2017 updated regulatory impact analysis, the 2017 DOT cost benefit determination, and 2018 repeal of the ECP brake system requirement; (2) enter into an agreement with the NAS to conduct the testing and analysis required by the FAST Act; (3) after completion of that testing, release an updated RIA that fully incorporates the results; (4) revise the updated RIA to incorporate fleet forecasts that account for the surge in Canadian crude oil exports by rail to the United States and a methodology that accounts for this and other surges in crude-by-rail traffic going forward; and (5) make a new determination of whether the benefits of ECP brakes exceed their costs and take whatever publication or regulatory action follows from that determination under the FAST Act. As part of revising the updated RIA, PHMSA and FRA must afford the public an opportunity to comment on a draft RIA after it incorporates the results of the NAS testing. The violation of notice-and-comment requirements is an independent legal violation, quite apart from the other legal flaws in the updated RIA, and warrants a new opportunity for public comment on the updated RIA in light of recent crude-by-rail traffic and the NAS reports.

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Attachment 2

EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, D.C. INTERNATIONAL

January 8, 2019

Via electronic filing to:
www.regulations.gov (PHMSA 2017-0102)

Via FedEx to:
(FedEx tracking No.: 7741 4120 7092
Docket Management System
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001

Re: Administrative Appeal of the Final Rule: "Hazardous Materials: Removal of Electronically Controlled Pneumatic Brake Systems for High-Hazard Flammable Unit Trains," Docket No. PHMSA 2017-0102 (HM-251F), 83 Fed. Reg. 48,393 (Sept. 25, 2018)

Dear Sirs and Madams:

On October 25, 2018, we filed an administrative appeal of the final rule removing the requirement to have electronically-controlled pneumatic ("ECP") systems for high-hazard flammable unit trains. We challenged the repeal, in part, based on violations of notice-and-comment rulemaking requirements, and reliance on an out-of-date regulatory impact analysis whose assumptions and estimates have been undercut by recent increases in crude-by-rail traffic. To remedy these and other legal violations, we asked the Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHMSA") and the Federal Railroad Administration ("FRA") to vacate the repeal decision and the analyses on which it was based, to prepare an updated regulatory impact analysis ("RIA") that complies with legal requirements, and to provide notice and an opportunity for meaningful public comment.

Since we filed the administrative appeal, the Associated Press reviewed the underlying documents and found that the Department of Transportation miscalculated potential damages from train derailments by excluding the most common type of derailments and thereby erroneously elevated the net cost of the brake systems. An AP news story, published December 20, 2018, reports that Department officials acknowledged the mistake after AP brought it to their attention: https://www.columbian.com/news/2018/dec/20/apnewsbreak-trump-administration-underestimated-benefits-of-oil-train-brakes/. The miscalculations provide another reason why the Department should vacate the updated RIA, the 2017 determination regarding benefits and

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costs of ECP brakes, and the 2018 repeal of the 2015 ECP brake regulatory requirements. The Department must update the RIA to account for the full benefits of ECP brake systems and the surge in Canadian crude oil exports by rail to the United States, afford the public an opportunity to review and comment on the updated RIA, and make a new determination of whether the benefits of ECP brakes exceed their costs and take whatever publication or regulatory action follows from that determination under the FAST Act.

Sincerely,

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