

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION

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DOCKET NO. FRA-2019-0072  
AMENDMENTS TO BRAKE SYSTEM SAFETY STANDARDS GOVERNING OPERATIONS  
USING AN ELECTRONIC AIR BRAKE SLIP SYSTEM

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COMMENTS OF  
THE ASSOCIATION OF AMERICAN RAILROADS  
AND THE  
AMERICAN SHORT LINE AND REGIONAL RAILROAD ASSOCIATION

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The Association of American Railroads (“AAR”) and the American Short Line and Regional Railroad Association (“ASLRRA”), on behalf of themselves and their member railroads, submit the following comments in response to the Federal Railroad Administration’s January 15, 2021, notice of proposed rulemaking to revise 49 C.F.R. Part 232 to address the use of electronic air brake slips (“eABS”) to track mechanical inspections and freight car mileage.<sup>1</sup> AAR and ASLRRA (jointly “the railroads”) support FRA’s action to modernize and improve its existing air brake inspection regulations and to implement certain proposals in AAR’s 2019 petition for rulemaking on the same topic.<sup>2</sup> The NPRM proposals would not only increase the efficiency of

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<sup>1</sup> AAR is a trade association whose membership includes freight railroads that operate approximately 83% of the line-haul mileage, employ 95% of the workers, and account for 97% of the freight revenues of all railroads in the United States; and passenger railroads that operate intercity passenger trains and provide commuter rail service. ASLRRA is a non-profit trade association representing the interests of approximately 500 short line and regional railroad members and railroad supply company members in legislative and regulatory matters. Short lines operate 50,000 miles of track in 49 states, touching in origination or termination one out of every four cars moving on the national railroad system, serving customers who otherwise would be cut off from the national railroad network. 86 Fed. Reg. 3,957 (Jan 15, 2021).

<sup>2</sup> AAR Petition for Rulemaking at Docket No. FRA-2019-0072; available online at: <https://www.regulations.gov/search?filter=fra-2019-0072>.

railroad operations, but would advance railroad safety, reduce injury exposure to railroad employees, and result in significant climate, economic, and other societal benefits.

America's railroads are safe and getting safer. According to FRA safety data, in 2020 the railroads had the lowest employee casualty rate on record and reduced the rate of reportable train accidents by over 8% compared with 2019. Over 99.99% of all hazardous materials shipped via rail reach their destination without any release from accident. Further, in the decades since FRA's current regulatory scheme governing the conduct of air brake inspections were promulgated (via final rules published in 1982 and 2001), there have been significant safety improvements in the industry.<sup>3</sup> Out of an industry-wide total of 1,518 reportable accidents in 2020, only 23 involved air brake-related causes on freight railroads, or one incident per approximately 21 million freight railroad train miles.<sup>4</sup> There were zero injuries or fatalities as a result of those 23 incidents. Based on the total number of Class I railroad train starts in 2020, there was only one air brake-related incident for every 54,798 freight train starts.<sup>5</sup>

These safety improvements have been due primarily to the railroad industry's voluntary development of new preventative and predictive maintenance strategies, technological advances such as the deployment and continued evolution of uses for wayside detectors and

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<sup>3</sup> FRA published a final rule one month prior to this NPRM that makes other miscellaneous changes to 49 C.F.R. Part 232. 85 Fed. Reg. 80,544 (Dec. 11, 2020). Because railroads have just started implementing that rule, its safety improvement and operational impacts are not yet quantifiable.

<sup>4</sup> See <https://safetydata.fra.dot.gov/OfficeofSafety/Default.aspx>.

<sup>5</sup> This calculation likely understates the number of freight train starts 2020, as AAR only gathered data for trains traveling longer distances most likely to be implicated by this NPRM (and the railroads did not include in this total multiple crews per train symbol).

machine vision stations that spot mechanical problems before they cause accidents, modernized mechanical equipment components, and various operating practice advancements in the industry, including the use of dynamic brakes to minimize air brake component wear. FRA's proposal to increase the distance certain trains can travel recognizes safety data shows past intermediate inspection intervals are no longer necessary given the safety gains made possible by the use of advancing inspection technologies, equipment tracking systems, and other modern practices.<sup>6</sup> The proposed regulation will help unlock additional safety advances.

The NPRM proposals to eliminate some unnecessary inspections will result in a reduction in employee injury risks. As FRA explains in the NPRM, there are "fewer than two reported injuries per year that are related to causes that could have been identified in the course of an effective brake test."<sup>7</sup> However, as explained in AAR's petition for rulemaking on this topic, hundreds of employees are injured every year while climbing on and off railroad equipment, while operating handbrakes to secure freight cars, operating switches, and via slips/trip/falls and sprains/strains while walking on right of way in the railroad operating environment in varying weather conditions in order to conduct inspections and other duties.

The NPRM proposals also will reduce employee injury risks by eliminating additional train/switching movements. Because a train will be permitted to pick up and set out multiple blocks, it will reduce the number of trains that must stop to pick up and set out cars. Such extra

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<sup>6</sup> 86 Fed. Reg. at 3,965-66. FRA explained in the NPRM that "the overall reliability of brake systems has increased through technological and operational improvements", with no measurable decrease in safety.

<sup>7</sup> *Id.* at 3,964.

stops by additional trains require switching movements, the setting of handbrakes on multiple railcars to secure the trains per FRA regulations, and additional inspections and exposure along railroad rights of way.

FRA fully appreciates that the proposals will likely reduce the number of railroad employee injuries.<sup>8</sup> On that basis alone, FRA should finalize this rule. But the proposals in the NPRM also will result in environmental benefits. Reduced locomotive idling and switching movements that flow from the elimination of single pick ups and set outs and additional inspections will directly reduce greenhouse gas (“GHG”) emissions and diesel fuel consumption. AAR estimates that locomotive idling time for affected trains will be reduced by approximately two hours, with each train typically containing several locomotives.<sup>9</sup> In total, AAR estimates 31,000 tons of CO<sub>2</sub> emissions will be eliminated annually as a result of the rule.<sup>10</sup> The emissions prevented would be the equivalent of the yearly carbon reductions provided by approximately 37,000 acres of U.S. forests.<sup>11</sup>

The proposals in this NPRM would also allow for more efficient railroad operations, benefiting railroads, their customers, and the public. FRA noted that the proposed rule is

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<sup>8</sup> 86 Fed. Reg. at 3,965.

<sup>9</sup> AAR estimates affected trains will have 2.94 locomotives. FRA’s estimates in the NPRM estimate a range with a low end of 1.15 locomotives per train. We understand FRA’s data was developed from the annual AAR Railroad Facts publication and includes all trains such as local and switching jobs, versus through freight trains that will be implicated by this rule and that typically have multiple locomotive consists and utilize distributed power locomotives.

<sup>10</sup> In addition to CO<sub>2</sub> reductions, AAR estimates other pollutants and particulate matters will also correspondingly be reduced as a result of this rule, *e.g.*, N<sub>2</sub>O, PM<sub>2.5</sub>, HC, *etc.*

<sup>11</sup> “Greenhouse Gas Equivalencies Calculator.” *Energy and the Environment*, United States Environmental Protection Agency, October 15, 2018. [Epa.gov/energy/greenhouse-gas-equivalencies-calculator](https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator).

expected to increase freight traffic flow rate and reduce overall dwell time.<sup>12</sup> More efficient railroad operations benefit – and are desired by – American businesses.<sup>13</sup> Improvements in efficiency and reduced shipping times would foster economic growth by creating synergies within the transportation industry. On average, freight railroads are 3-4 times more fuel efficient than trucks.<sup>14</sup> Moving freight by train instead of truck reduces GHG emissions for such transportation by up to 75%.<sup>15</sup> One train can carry the freight of hundreds of trucks, which will help reduce highway congestion.<sup>16</sup> Efficiencies achieved under this rule would result in further emissions reductions.

The proposed rule may also result in trains clearing highway-rail grade crossings more expeditiously, and in some instances will obviate the need for trains to occupy certain crossings at all. Railroads must sometimes occupy crossings when blocks of equipment are assembled into a single train in order to conduct a brake inspection. The elimination of additional brake inspections will reduce such instances and the duration of such. The possibility of blocked crossings would also be reduced by eliminating the single pick-ups that current regulations

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<sup>12</sup> 86 Fed. Reg. at 3,971.

<sup>13</sup> See, e.g., Joanna Marsh, *Home Depot Offers Freight Rail a Shipper Wish List*, AMERICAN SHIPPER (Feb. 3, 2021); <https://www.freightwaves.com/news/home-depot-offers-shipper-wish-list-for-rail-infrastructure>.

<sup>14</sup> See Association of American Railroads, *Freight Railroads & Climate Change*, March 2021; <https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf>.

<sup>15</sup> *Id.*

<sup>16</sup> From a safety perspective, there are additional benefits to be gained via a more efficient rail transportation system. Railroads have a significantly lower rate of hazardous materials incidents when compared to trucks, with less than 8% of the incidents per ton mile. Freight railroads are only involved in approximately 1/7 of the fatal incidents that large trucks are per trillion-ton miles. See Attachment No. 1. Further, the rail industry has lower employee casualty rates than other sectors, including trucking, airlines, manufacturing, and construction. See Attachment No. 2. Freight railroads also own, build, maintain, operate, and pay for their infrastructure with little government assistance.

necessitate and that result in additional trains performing switching operations and brake inspections.

In sum, the NPRM proposals are a positive step that will improve railroad safety and efficiency, while reducing climate impacts and blocked crossing occurrences. The NPRM is consistent with DOT's goals of increased safety and environmental stewardship. The NPRM moves FRA's mechanical regulations forward by acknowledging technological developments that allow precise electronic tracking of freight equipment inspections, mileage, and maintenance. Comments on specific aspects of the NPRM follow below.

**1. FRA should allow Qualified Person ("QP")-inspected equipment to travel 1,500 miles.**

Under the NPRM proposals, QP-inspected equipment would continue to be inspected every 1,000 miles, while trains inspected by a qualified mechanical inspector ("QMI") would be permitted to travel 2,500 miles between inspections. In the final rule, FRA should increase the distance QP-inspected trains can travel to 1,500 miles.

In a 1982 NPRM proposing to update Part 232, FRA explained the "500 mile [intermediate brake] test can be extended to 1,000 miles without any reduction in safety. Further extension may be appropriate if actual experience over the next several years so indicates."<sup>17</sup> That 1982 FRA statement was based on 1970's-era brake technologies, brake shoes, and safety studies. Four years later after the allowable mileage between brake inspections was doubled to 1,000 miles, the number of mechanical-caused accidents in the

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<sup>17</sup> 42 Fed. Reg. 7,283, 7,287 (Feb. 18, 1982). Emphasis added.

railroad industry had been reduced by over half.<sup>18</sup> With the number of mechanical-caused accidents reduced again by over 50% since then, and with the railroads rapidly implementing a variety of new safety technologies, in instances involving QP inspections the NPRM proposals stick to the 1,000 mile mark that FRA explained in 1982 might be increased “over the next several years.”

The increase from 500 miles to 1,000 miles between inspections in 1982 was an appropriate first step, as the ability to track days between inspections and to determine the frequency of, and mileage between, freight car repairs was much more difficult at that time. Today, however, advances in electronic recordkeeping, equipment tracking, maintenance practices, and the advancing use of wayside and machine safety technologies allow for better fact- and data-based regulations.

The seven Class I freight railroads reviewed approximately 50 million eABS records created in 2020 (the total number of such Class I railroad records available). The chart below shows the frequency of freight car inspection intervals that were gleaned from those records which specified the sequence of inspection (whether performed by a QMI or QP). Notably, not all inspections (QP or QMI) are recorded in these electronic records as railroads are in varying states of transition to eABS recordkeeping systems. As such, inspection intervals often occur even more frequently than reflected in this chart:

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<sup>18</sup> There were 1,016 mechanical-caused accidents in 1981, or the full year immediately prior to the NPRM’s issuance. In 1986 there were 433 mechanical-caused accidents, and 215 in 2020. See <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearAccidentIncidentOverview.aspx>.

<b>Average &amp; Median Miles &amp; Days Since Last Inspection</b>				
	<b>Miles</b>		<b>Days</b>	
	Average	Median	Average	Median
<b>QP to QMI</b>	875	451	10	4
<b>QP to QP</b>	794	269	9	4
<b>QMI to QMI</b>	837	458	9	4
<b>QMI to QP</b>	951	384	9	3

On average, freight cars are inspected by a QMI at least every 10 days. QMIs and QPs typically conduct visual inspections of equipment a multitude of times before maintenance is required. Significant defects, major repairs, and other maintenance events are generally driven by predictable mileage intervals (that exceed 2,500 and 1,000 miles, respectively), not by whether, or how many times, a QP or a QMI inspects a freight car.<sup>19</sup> This data helps illustrate FRA draws an unwarranted distinction between freight cars inspected by QPs versus QMIs. Further, a substantial portion of repair events are driven by wayside detection technology.

QPs are trained and qualified to perform their inspection duties under programs prescribed by FRA.<sup>20</sup> Trains inspected by QPs are operated throughout our country’s railroad system daily and reach their destinations without incident. Both QP and QMI personnel are

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<sup>19</sup> The railroads are evaluating a prospective data study involving mileage intervals between repair/maintenance events and inspection frequencies that may be used to supplement the record in this proceeding.

<sup>20</sup> 49 C.F.R. § 232.5.



trained and qualified to perform the functions prescribed in § 232.205. FRA presumably has confidence in QP inspections.

Generally, the safety data relied upon in the NPRM is not specific to the qualifications of the inspector. At present, a train can travel in several 1,000-mile intervals and have additional intermediate brake tests performed by QPs only and continue to destination safely. This intermediate inspection does not require an additional inspection under 49 C.F.R. Part 215. FRA notes that inbound trains operating on FRA waivers travel up to 1,800 miles between inspections and experience the same number of brake anomalies and defects as trains that are only permitted 1,500 miles.<sup>21</sup> Whether a QP or a QMI has inspected the train initially is not determinative regarding the number or type of defects that might occur on a piece of equipment as it travels to its destination.

FRA asserts a lack of data showing QP inspections are adequate to allow trains to travel beyond 1,000 miles, but that assertion ignores substantial evidence in the record. In September 2020, AAR provided FRA with data regarding thousands of cars that were inspected by a QP, traveled less than 100 miles, and were then inspected by a QMI. Two Class I railroads took part in this initiative, the results of which provides ample support for the reliability of QP inspections.

The Union Pacific Railroad (UP) inspected 15,480 freight cars over a one-year timeframe from 2019 to 2020 at Newport, Ark. The cars were inspected by a QP at Newport then traveled

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<sup>21</sup> 86 Fed. Reg. at 3,961.

82 miles to North Little Rock, Ark., where they were inspected by a QMI. The 15,480 cars inspected included all cars traveling between the two locations. No groups of cars were singled out for testing or excluded. The study was conducted over the course of all four seasons. Of the 15,480 cars studied, only two cars (or 0.013%) were found with a brake-related defect during the QMI inspection. Contrary to FRA's assertion, there was no "comingling" of data between QP and QMI inspections because no brake inspections are performed by QMI personnel at Newport.

In 2019, Norfolk Southern Railway (NS) performed a similar study involving freight cars that were inspected by a QP, traveled less than 100 miles, and were then inspected by a QMI. A total of 560,545 freight cars were inspected. These cars included all cars traveling on NS that originated at points where inspections are performed exclusively by QPs. The study included virtually every type of freight car, and no groups of cars were excluded or singled out for inspection. The study was conducted for a period of one year through all four seasons. Only 68 cars, or .012%, were found to have air brake-related defects during the QMI inspection.

Next, as part of the QP-related discussion in the NPRM, FRA requests comment on the efficacy of wayside detector inspections. An air brake inspection on a standing train cannot identify all air brake defects. Wayside detectors regularly identify brake defects within moving trains that are not discovered through visual inspections during stationary brake tests, whether inspected by a QP or a QMI.

There are also certain categories of freight car defects that are generally not capable of being detected via visual inspections, but which modern wayside detectors identify. For

example, acoustic and other wheel bearing defects are not discovered via visual inspection of a standing train. Bearing defects are identified by wayside technologies and remedied before failure. The same is true for truck hunting defects. FRA also questions false positive/false negative wayside detection indications. A false indication of a suspected safety defect is not a meaningful safety concern, rather these are part of the ongoing process of advancing the accuracy of automated wayside defect detection technologies.

The railroads request FRA reconsider its position as to QP inspections based on the data described above. Electronic air brake slip systems provide new data insights into freight car health and reliability. The safety benefits that flow from this data are in addition to the obvious benefits eABS systems represent in the area in freight car inspection tracking and recordkeeping. If, despite the data justifying such, FRA is not willing to adopt a permanent rule providing for a 1,500-mile QP inspection interval, FRA should authorize such for a period of two years after publication of the rule. Subsequent inspection results would be shared with FRA (and FRA is obviously free to observe such inspections) to confirm that safety is not negatively impacted by the use of QP inspections. After the collection of data supporting a 1,500-mile interval, FRA could then make that interval permanent.

AAR estimates approximately 37% of the train brake inspections contemplated by this rule are performed by QPs at present. It bears noting that if FRA does not allow QP-inspected trains to travel 1,500 miles, thousands of additional inspections will continue to be performed --

in order for trains to travel only short distances past 1,000 miles in many instances.<sup>22</sup> This approach also has implications regarding the ability of QMI-inspected trains to pick up QP-inspected cars without need for additional intermediate brake tests. Failure to move forward with a 1,500-mile standard for QP-inspected trains would continue to expose workers to unnecessary safety risks and would forego the opportunity to eliminate thousands of tons per year in GHG and other emissions.

## **2. Revocation under proposed § 232.221(j).**

Under § 232.221(j), FRA proposes to grant itself the authority to summarily revoke a railroad's or an individual's ability to utilize the section in certain circumstances. When a railroad or an individual violates a regulation or order issued by FRA, Congress has spelled out an exclusive list of enforcement authorities available to the agency. Those authorities include the ability to issue civil penalties under 49 U.S.C § 20111(a), to issue compliance orders under § 20111(b), emergency orders under § 20104, to seek injunctive relief in the courts (§ 20111(a)), to order certain remedial actions (§ 20111(d); *See also* 49 C.F.R. Part 216), and to prohibit persons from performing safety-sensitive duties after notice and opportunity for a hearing (§ 20111(c); see also Subpart D of 49 C.F.R. Part 209).

That list of statutory authorities does not include a provision allowing FRA to revoke a previously issued safety regulation of general applicability as to a specific railroad or an individual. Pursuant to the Administrative Procedure Act (5 U.S.C. § 551 *et seq*), FRA would first

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<sup>22</sup> As explained in AAR's 2019 petition for rulemaking (see Appendix E), as a practical matter due to fixed termination points trains will not actually travel the full distance permitted under the regulations (i.e., terminals are not all exactly 1,500 miles apart). Rather, trains will almost always travel some measure short, potentially several hundred miles so, of the limitations specified in Part 232.

have to undertake a notice and comment rulemaking proceeding to revoke the applicability of the regulation.

Congress has already given FRA authority at § 20104 to remedy unsafe conditions by the issuance of emergency orders. FRA must follow the processes in that statute if it wishes to utilize such authority. With respect to individual railroad employees who violate an FRA regulation, Congress has only granted FRA the authority to issue civil penalties for willful violations, disqualify persons from safety sensitive duties after due process, issue emergency orders, or undertake processes involving loss of certification under specific FRA regulations (*see, e.g.*, 49 C.F.R. Parts 240 & 242 under those regulations' own specific Federal Railroad Safety Act (FRSA) statutory authorities). FRA should delete proposed paragraph (j) in the final rule.

**3. Electronic records should be retained for 30 days.**

In § 232.221(i), FRA proposes that a railroad's eABS system must retain records for a minimum of one year. This approach is a departure from air brake inspection record retention under current regulations, and also does not align with electronic recordkeeping provisions in other safety-critical FRA regulations. Currently, after a train has reached its destination, the written air slip on the train noting the location, date and time, and personnel who performed a brake inspection can be discarded. Other FRA regulations regarding the retention of electronic records more safety-critical in nature than eABS records required retention for a much shorter time. For example, in § 214.322(f) of FRA's roadway worker protections regulation, FRA requires electronic track occupancy authorities issued to roadway workers occupying track to

be retained for only 72 hours. Other FRA mechanical regulations in Parts 229 and 232 only require retention of records for periods generally 90 or 92 days in length. Further, under § 220.61, a mandatory directive issued to a train crew via radio, and which governs train movement, must only be retained for the duration of the train crew's work assignment.

Just like a mandatory directive, once a freight car has reached its destination or mileage limitation, historic information regarding a past inspection performed is no longer safety-critical in nature, and just becomes part of a recordkeeping exercise. The requirement to keep a year's worth of rolling records for an individual freight car, which would constantly be updated with mileage and inspection information via the eABS system, would impose costs and administrative burdens on railroads that are not offset by any recognizable benefits.

To balance these concerns against FRA's desire to review eABS records as part of its oversight of a new regulation, a 30-day eABS record retention period would be appropriate. 30 days will allow FRA to request and obtain any eABS records that might be related to a safety complaint investigation or as part of an accident or incident investigation. This approach also mitigates administrative burdens and costs that are of no safety benefit.

#### **4. Update of eABS information under § 232.221(c)(2).**

Under proposed § 232.221(c)(2), a record meeting the requirements of paragraph (a)(3) must be entered into the eABS system "as soon as practicable after departure of the car in a train, but no later than the time at which the car departs in any subsequent train." The railroads proffer that the updating of eABS records prior to the "next crew change" would, for both railroads and FRA, be a more well-defined event to trigger the requirement to update a

car's record. Train symbols might be subject to change during a train's trip, but a crew change is a concrete, definable event that will provide both FRA and railroads more certainty.

Also, from a safety standpoint, crew changes often occur before equipment will depart in a "subsequent train." This approach would also be consistent with FRA regulations addressing the locomotive engineer operating a train having knowledge regarding brake inspection-related information, such as found in in § 232.205(e) (air slip) and § 232.409(c) (notice of end of train device test). At the time a subsequent crew takes control of a train, the eABS record would be updated such that a new crew would have the same required knowledge regarding the status of the cars in the train that the originating crew had.

#### **5. Train crew documentation under proposed § 232.221(d)(1).**

Under § 232.221(d)(1), FRA proposes an extensive list of eABS documentation that must be available to the train crew in the cab of the locomotive. This information is in addition to the comprehensive list of car information that will already be in a railroad's overarching eABS system under proposed § 232.221(a)(3). Some of the information is duplicative of what is already required under paragraph (a)(3) and is unnecessary for train crew purposes. The location in the train of a car and its reporting mark and car number are already contained in documentation carried by train crews. A real-time calculation of the allowable mileage remaining for each car is also unnecessary for purposes of train crew documentation. If the crew knows the mileage for the most restrictive car in the train upon departing, they will know whether the train can travel to destination without violating Part 232.

The identification of a person who performed a brake test is also unnecessary for train crew purposes and will already be available to FRA under the eABS records required under proposed paragraph (a)(3). At present the identity of a person who conducted an inspection of a train is noted on a paper air slip. Under the eABS system each car in a train could have different person(s) who performed the governing inspection, and such information is superfluous for a train crew. FRA should delete the requirements in § 232.221(d)(1) requiring such unnecessary information.

**6. Immediately accessible records under proposed § 232.221(f)(4).**

Under § 232.221(f)(4), FRA proposes to require that records in an eABS system be made immediately available upon request to FRA. One of the benefits of an eABS system will be the ability to retrieve air brake inspection records more quickly than under current systems. To the extent eABS records may be housed or available in multiple locations (with the hauling railroad and also potentially via an electronic housing system with a third party), the freight railroad transporting a freight car should be the point of contact for any FRA eABS records request as to that car rather than any third party.

Also, in the final rule, FRA should clarify that railroads have a reasonable amount of time to provide records requested in a reasonable manner. *See* 49 U.S.C. § 20107(b). Railroad employees who receive such requests might be performing safety-critical duties that must be completed prior to retrieving requested records. Employees may not always be in a physical position to be able to access such records immediately upon request, and, as FRA acknowledges in the preamble, may need a reasonable opportunity to move to a location with the



appropriate access to connected technology to be able to respond to FRA's request for records. In the final rule FRA should consider adopting a minimum four-hour period for a railroad to be able to provide requested records. For short line railroads considered to be small businesses, FRA should make such requests not involving urgent accident investigations during business hours.

**7. Mileage calculation under § 232.221(h).**

Under proposed § 232.221(h), FRA would tie the tracking of mileage to movements of a train. The railroads concur with this approach. As FRA explains, the exclusion of switching movements in mileage calculations is "consistent with longstanding practice and existing legal precedent."<sup>23</sup>

FRA also proposes in paragraph (h) that a car's remaining mileage would have to be updated as soon as practicable after each car's departure in a train, and at a minimum no later than the car's departure in a subsequent train. For the same reasons discussed as to proposed paragraph (c)(2) above, the railroads request in a final rule that the "next crew change" would, for both railroads and FRA, be a more readily definable event dictating when a car's record must be updated.

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<sup>23</sup> 86 Fed. Reg. at 3,970.

The railroads support FRA's action to modernize its regulations and improve railroad safety in a way that provides climate change and other environmental and societal benefits.

The railroads appreciate the agency's consideration of these comments.

Respectfully submitted,



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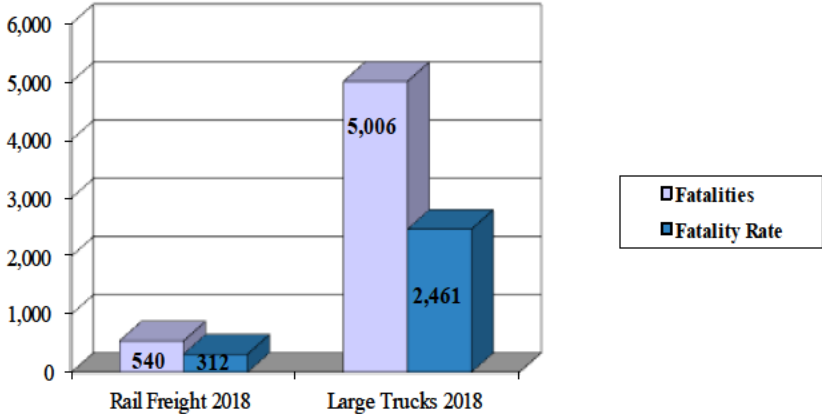


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# ATTACHMENT NO. 1

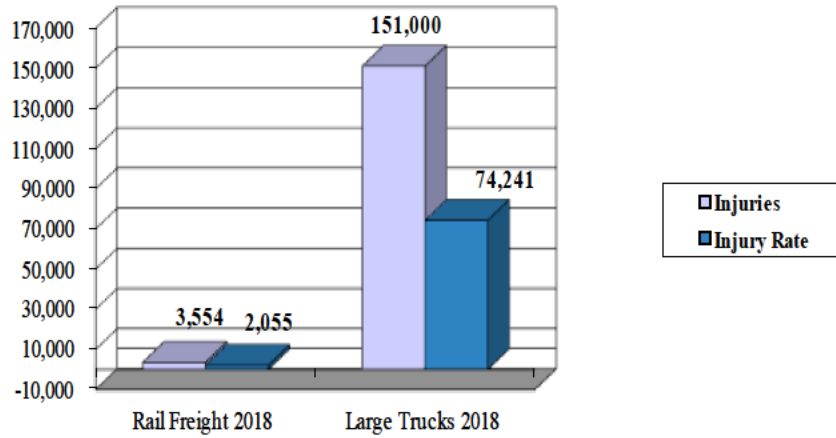
**Freight RRs incur 14% of the fatalities that large trucks do per trillion ton-miles.**



Sources: Freight rail -related fatalities from FRA website <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearFreightPassengerOperationsOverview.aspx> 2018.  
Large truck-related fatalities from NHTSA Traffic Facts, <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication>  
Both rail and large truck ton -miles in 2018 from Table 1-50 USDOT BTS National Transportation Statistics at <https://www.bts.gov/topics/nationaltransportation-statistics> Large trucks are trucks with a gross vehicle weight rating (GVWR) greater than 10,000 pounds.



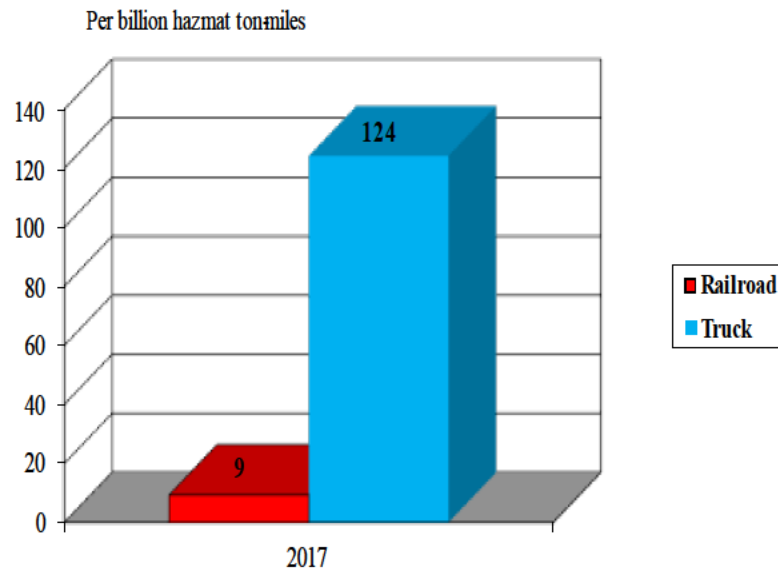
## Freight RRs incur about 3% of the injuries that large trucks do per trillion tonmiles.



Sources: Freight rail -related injuries from FRA website, at <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearFreightPassengerOperationsOverview.aspx> 2018. Large truck -related injuries from USDOT, FMCSA, [Large Truck and Bus Crash Facts, 2018 Trends Table 7](https://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2017#A.5), at <https://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2017#A.5>. Both rail and large truck ton -miles in 2018 from Table 1 -50 USDOT BTS National Transportation Statistics at <https://www.bts.gov/topics/nationaltransportation-statistics> Large trucks are trucks with a gross vehicle weight rating (GVWR) greater than 10,000 pounds.



## The freight railroad rate of hazmat incidents per billion ton miles is about 7% that of trucks.



Sources: Pipeline & Hazardous Materials Safety Administration, Hazardous Materials Incidents By Year & Mode, for 2011 -2020, as of March, 2021, at <https://hip.phmsa.dot.gov/analyticsSOAP/saw.dll?Dashboard>. According to the most recent Economic Census Commodity Flow Survey, in 2017 trucks hauled 126.8 billion hazmat net ton-miles and railroads 61.7 billion ton -miles (excluding intermodal) (BTS, 2017 Commodity Flow Survey, Hazardous Materials, issued 2020, Table CF1700H01)



## ATTACHMENT NO. 2

