

1FEDERAL RAILROAD ADMINISTRATION
Brake System Safety Standards Governing Operations Using an
Electronic Air Brake Slip System
(49 CFR Part 232)
SUPPORTING JUSTIFICATION
RIN 2130-AC82; OMB No. 2130-NEW

Summary

- This is a new collection of information associated with the Federal Railroad Administration’s (FRA) Notice of Proposed Rulemaking (NPRM) titled Amendments to Brake System Safety Standards Governing Operations Using an Electronic Air Brake Slip System, which is statutorily mandated by the Rail Safety Improvement Act of 2008.
- FRA published this NPRM in the Federal Register on January 15, 2021. See 86 FR 3957. FRA plans to respond to any comments received in response to the NPRM in the final rule.
- The total number of burden hours requested for this submission is 9,341 hours.
- The total number of responses requested for this submission is 280,230.
- By definition, this entire submission is a program change.
- The answer to question number 12 itemizes information collection requirements.
- *Note: This new information collection request will be incorporated under OMB Control Number 2130-0008 (Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment) once it is cleared at a later date.*

1. Circumstances that make collection of the information necessary.

In a March 1, 2019, petition (Petition), the Association of American Railroads (AAR) asked FRA to amend the existing brake system safety standards (49 CFR part 232) to increase the mileage individual freight cars are allowed to operate between required brake tests if the cars have a valid electronic air brake slip (eABS) system record. AAR requested that a car with a “valid” eABS system record be allowed to move up to 2,500 miles between brake tests if the car had received a Class I brake test conducted by a qualified mechanical inspector (QMI), as defined in 49 CFR 232.5, and a freight car inspection performed by a designated inspector, as defined in 49 CFR 215.11, similar to the existing requirements for extended haul trains in 49 CFR 232.213. AAR requested all other cars with eABS system records (i.e., cars with Class I brake tests not performed by QMIs and/or freight car inspections not performed by designated inspectors) be allowed to move up to 1,500 miles between required brake tests, as opposed to the currently allowed limit of 1,000 miles.

In its Petition, AAR also asked FRA to amend part 232 to remove the existing restrictions on “block swapping” and permit railroads to add or remove single cars or multiple cars from single or multiple locations in trains solely made up of cars with eABS system records without conducting an additional Class I brake test. This rulemaking responds to AAR’s Petition.

Congress empowered the Secretary of Transportation, as necessary, to prescribe regulations and issue orders for every area of railroad safety supplementing laws and regulations in effect on October 16, 1970. 49 U.S.C. 20103 (Federal Rail Safety Act of 1970). Authority to enforce Federal railroad safety laws has been delegated by the Secretary of Transportation to the Administrator of FRA. 49 CFR 1.89. Railroads are subject to FRA’s safety jurisdiction under the Federal railroad safety laws. 49 U.S.C. 20101; 49 U.S.C. 20103.

Background

On December 11, 2020, FRA issued a final rule, extending the amount of time freight rail equipment can be left off-air (meaning parked with its air brake system depressurized) before requiring a new brake inspection, which is expected to reduce the number of idling locomotives. The final rule incorporated longstanding waivers for brake inspections, tests and equipment, while clarifying existing regulations and removing outdated provisions.

These revisions contemporized Brake System Safety requirements by incorporating safer, newer technologies, reduced unnecessary costs and increased consistency between U.S. and Canadian regulations.

In 2001, FRA issued regulations governing the securement of unattended equipment. These regulations have been effective in protecting against the risk of rolling equipment. Over the last few years, there has been a significant increase in the volume of rail traffic for certain types of commodities, such as crude oil and ethanol, both of which are highly flammable and often transported in large unit or “key” trains, as defined in the industry by AAR.

For a substantial summary, history, and analysis of the regulations affecting Class I, Class IA, Class II, and Class III brake tests, single car air brake tests, and the operation and testing of end-of-train devices, please visit the following *Federal Register* publications: 66 FR 4104, Jan. 17, 2001; 66 FR 39683, Aug. 1, 2001; 67 FR 17555, Apr. 10, 2002; and 85 FR 80544, Dec. 11, 2020.

2. How, by whom, and for what purpose the information is to be used.

FRA is proposing to amend its brake system safety standards to address operations using an eABS system, which is a system that tracks details related to individual freight car brake tests. The proposed rule would provide an alternative regulatory framework for

railroads to utilize when choosing to use an eABS system, but would not require railroads to use such a system. The NPRM proposes to extend the distance certain individual rail cars may travel (from 1,500 to 2,500 miles) without stopping for brake and mechanical tests, if a car has a valid eABS record, provided the class I brake test was completed by a QMI. The NPRM also proposes to allow railroads to add or remove multiple cars from a train without conducting additional brake tests, if the train is solely made up of cars with eABS records.

Specifically, § 232.221 sets forth the proposed requirements for eABS systems and railroad operations under those systems. As proposed, this section would allow railroads to move cars with a compliant eABS up to either 1,000 or 2,500 miles between brake tests provided certain conditions are met.

3. Extent of automated information collection.

It is up to each railroad to decide for itself the most appropriate method of recordkeeping. In keeping with both the goals of the 1995 Paperwork Reduction Act (PRA) and the 1998 Government Paperwork Elimination Act, FRA has sought to reduce burden, wherever possible, by permitting the use of an electronic or automated option in order to allow railroads to determine for themselves the most cost-effective and convenient method to fulfill the rule's paperwork requirements. Due to the nature of this proposed requirement, approximately 90 percent of responses may be kept electronically.

4. Efforts to identify duplication.

To FRA's knowledge, this information is not duplicated anywhere. Similar data is not available from any other source.

5. Efforts to minimize the burden on small businesses.

The "universe" of the entities under consideration includes only those small entities that can reasonably be expected to be directly affected by the provisions of this rule. In this case, the "universe" will be all Class III freight railroads.

The U.S. Small Business Administration (SBA) stipulates in its "Size Standards" that the largest a railroad business firm that is "for-profit" may be, and still be classified as a "small entity," is 1,500 employees for "Line Haul Operating Railroads" and 500 employees for "Switching and Terminal Establishments." "Small entity" is defined in the Act as a small business that is independently owned and operated, and is not dominant in its field of operation. Additionally, section 601(5) defines "small entities" as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations less than 50,000.

Federal agencies may adopt their own size standards for small entities in consultation with SBA and in conjunction with public comment. Pursuant to that authority, FRA has

published a final policy that formally establishes “small entities” as railroads which meet the line haulage revenue requirements of a Class III railroad, which is \$20 million or less in inflation-adjusted annual revenues, and commuter railroads or small governmental jurisdictions that serve populations of 50,000 or less.¹ The \$20 million limit is based on the Surface Transportation Board’s revenue threshold for a Class III railroad carrier. Railroad revenue is adjusted for inflation by applying a revenue deflator formula in accordance with 49 CFR 1201.1-1. The current threshold is \$39.2 million or less.² FRA is using this definition for the proposed rule. For other entities, the same dollar limit in revenues governs whether a railroad, contractor, rail equipment supplier, or other respondent is a small entity.

This proposed rule would be applicable to all railroads, although not all changes would be relevant to all railroads. Based on the railroads that are required to report accident/incidents to FRA under part 225, FRA estimates that there are approximately 736 Class III railroads, with 695 of them operating on the general system. These are of varying size, with some a part of larger holding companies. The industry trade organization representing small railroads, the American Short Line and Regional Railroad Association (ASLRRA), reports the average freight revenue per Class III railroad is \$4.8 million.³

This NPRM would allow the use of eABS technology and encourage its use by extending the distance permitted between Class I brake tests, and reducing the current restrictions on adding to or removing cars from a train (i.e., block swapping) without performing additional brake tests where eABS is used.

The use of the eABS system is optional. FRA estimates that by taking advantage of this system, small entities could realize cost-savings by reducing the occurrence of Class I brake tests performed. This NPRM would also give small entities more flexibility in block swapping, which would especially benefit small railroads that handle frequent or large blocks of rail cars. Small railroads that opt to use the eABS system may incur some costs for training employees and hardware costs.

Based on AAR data, Class I railroads would incur costs for training employees, purchasing hardware to enter in air brake test data. Railinc (a subsidiary of AAR) would incur costs for developing the eABS system. FRA expects the costs for the Class III railroads that choose to participate in the system will be much less than those of the Class I railroads, because Class III railroads have significantly fewer employees, less rail traffic, and operate over shorter distances.

¹ 68 FR 24891 (May 9, 2003); 49 CFR Part 209, app. C.

² The Class III railroad revenue threshold is \$39,194,876 or less, for 2018. (The Class II railroad threshold is between \$39,194,876 and \$489,935,956; and the Class I railroad threshold is \$489,935,956 or more.) See Surface Transportation Board FAQs, available at <https://www.stb.gov/econdata.nsf/M%20Railroad%20Revenue%20Deflator%20Factors?OpenPage>

³ American Short Line and Regional Railroad Association (ASLRRA), *Short Line and Regional Railroad Facts and Figures*, p. 12 (2017 pamphlet) [hereinafter *Facts and Figures 2017*].

The annualized costs per Class III railroad for the categories of Training, Hardware, and Railinc results in costs of about \$1,100 per railroad. These costs are a very small percentage of the average freight revenue for a Class III railroad, amounting to less than one-half percent.⁴ If Class III railroads are provided appropriate flexibility, there will not be a significant economic impact on small entities. Furthermore, FRA again notes that using the eABS system would be voluntary.

Class III railroads would also realize some cost-savings from the proposed rule, but to a much lesser degree. Given that Class III railroads generally operate shorter trains than Class I railroads, the time saved in performing brake tests would be less. For the provision allowing multiple pick-ups and set-outs without another Class I brake test, Class III railroads would also benefit because they regularly pick-up and set-out cars. The benefits would depend on the nature of the Class III railroad's operations (for example, the number of cars interchanged), and would be less than those of the Class I railroads because of the fewer numbers of carloads handled.

The changes in this proposed rule would provide some relief for the Class III railroads. Given the relatively low costs, including the additional burden of understanding the regulation, FRA estimates these costs would likely be more than offset by the cost savings from performing fewer brake tests and time saved from fewer trains needed for pick-ups and set-outs.

6. Impact of less frequent collection of information.

If the information were not collected or collected less frequently, rail safety in the United States would be seriously jeopardized. The data collected under part 232 allows FRA to mitigate unsecured locomotive and train incidents. Without this information, it is likely that there would be more rail accidents/incidents involving unsecured locomotives and trains.

Without the collection of information under the new amendments, locomotive engineers would not be informed of the operational status of the dynamic brakes on all conventional locomotive units in the consist at the initial terminal or point of origin for a train, or at other locations where they first take charge of a train. This could lead to dangerous train handling situations and to an increase in the number of rail accidents/incidents and associated injuries/fatalities to crew members, as well as increased property damage. Also, if this information were not collected, yard air sources would not be monitored to ensure that they operate as intended. As a result, contaminants could be introduced into the brake system of freight equipment which could affect the functioning of the brakes and thus negatively impact railroad safety.

7. Special circumstances.

All information collection requirements contained in this rule are in compliance with this

⁴ Class III average freight revenue per railroad = \$4.75 million. See *Facts and Figures 2017*, p. 12. Calculation: \$4,750,000/\$1,226 costs = 0.00026 or about 0.03%.

section.

8. Compliance with 5 CFR 1320.8.

FRA published a Notice of Proposed Rulemaking (NPRM) in the Federal Register January 15, 2021, titled Amendments to Brake System Safety Standards Governing Operations Using an Electronic Air Brake Slip System soliciting comments on the proposed rule and its accompanying information collection requirements from the regulated community, the general public, and interested parties.⁵ FRA will respond to any comments received concerning the proposed rule and its associated collection of information at the final rule stage and in the final rule Supporting Justification.

9. Payments or gifts to respondents.

There are no monetary payments or gifts made to respondents associated with the information collection requirements contained in this proposed regulation.

10. Assurance of confidentiality.

Information collected is not of a confidential nature, and FRA pledges no confidentiality.

11. Justification for any questions of a sensitive nature.

There are no questions or information of a sensitive nature or data that would normally be considered private contained in this proposed information collection.

12. Estimate of burden hours for information collected.

The estimates for the respondent universe, annual responses, and average time per responses are based on the experience and expertise of FRA's Office of Railroad Infrastructure and Mechanical Equipment.

FRA is including the dollar equivalent cost below using the Surface Transportation Board's Full-Year Wage A&B wage rate data. For professional and administrative staff, the hourly wage rate is \$72 per hour ($\$41.15 * 1.75 = \72) in 2017 dollars.

CFR Section	Respondent universe	Total Annual responses (A)	Average time per responses (B)	Total annual burden hours (C = A * B) ⁶	Total cost equivalent (D = C * wage rate)	Section Analyses and Estimates
232.221— Inspection and	708 railroads	280,230 records	2 minutes	9,341 hours	\$672,552 (9,341	A railroad may move a car for a cumulative distance not

⁵ 86 FR 3957.

⁶ Totals may not add due to rounding.

Testing Requirements for Cars with Electronic Air Brake Slip System (eABS) Records - Amended records in the eABS system (New requirement)	(including amended records)				<i>hours times \$72</i>	exceeding 1,000 miles between the brake tests described in §§ 232.205 through 232.209 if the car meets the requirement set forth in this section. A record must be retained in the eABS system. FRA estimates that each record will take approximately two (2) minutes to complete.
—(f) Availability and integrity of records in the eABS system (New requirement)	The burden of this requirement is covered above.					
—(g) Amended records in the eABS system (New requirement)	The burden of this requirement is covered above.					

13. Estimate of total annual costs to respondents.

As noted in the regulatory impact analysis (RIA) accompanying the proposed rule, there are annual information collection costs to respondents that come from maintaining and utilizing an eABS system. These costs are voluntary costs and have been already been accounted for within the RIA.

14. Estimate of Cost to Federal Government.

There is no additional cost to the Federal Government related to the proposed requirements.

15. Explanation of program changes and adjustments.

This is a new collection of information associated with FRA’s proposed rule that adds new sections under Part 232. The total burden requested for this submission amounts to 9,341 hours, and the total number of responses requested is 280,230. By definition, the entire requested burden is a program change.

Table for Program Changes

CFR Section	Total Annual Responses			Total Annual Burden Hours		
	Current submission	Requesting submission	Difference (plus/minus)	Current submission	Requesting submission	Difference (plus/minus)

232.221—Inspection and Testing Requirements for Cars with Electronic Air Brake Slip System (eABS) Records - Amended records in the eABS system (New requirement)	0	280,230 amended records (2 minutes)	280,230 records	0	9,341 hours	9,341 hours
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There is no additional costs to respondents.

16. Publication of results of data collection.

There are no plans for publication regarding this information collection.

17. Approval for not displaying the expiration date for OMB approval.

Once OMB approval is received, FRA will publish the approval number for these information collection requirements in the Federal Register.

18. Exception to certification statement.

No exceptions are taken at this time.