1**FEDERAL RAILROAD ADMINISTRATION**
Inspection Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment (Power Brakes)
(49 CFR Part 232)
SUPPORTING JUSTIFICATION
RIN 2130-AC67; OMB No. 2130-0008

Summary

- This submission is a revision to the last approved submission pertaining to Part 232 that was approved by OMB on January 29, 2019 and which expires January 31, 2022.

- FRA is publishing a Notice of Proposed Rulemaking revising Part 232 titled Miscellaneous Amendments to Brake System Safety Standards and Codification of Waivers in the **Federal Register** on January 15, 2020. See 85 FR 2494. 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 **578,268 hours.**

- The total burden **previously approved** for this information collection amounted to **1,080,245 hours.**

- Total number of **responses requested** for this submission is **5,608,433**.

- Total number of **responses previously approved** for this collection is **30,525,348.**

- The **change** in burden from the last approved submission decreased the burden by **501,977 hours** and **responses** by **24,916,915**.

- Total **program changes** amount to/increased the burden by **3,601 hours,** and increased the number of responses by **103,960.**

- Total **adjustments** decreased the burden by **505,578** and decreased the number of responses by **25,020,875**.

  The answer to question **number 12 itemizes the hourly burden associated with each requirement of this rule (See pp. 9-13). *** The tables in answer to question number 15 itemize **program changes** and a**djustments** (See pp. 14-18).

1. Circumstances that make collection of the information necessary.

Background

In December 2017, AAR filed a petition for waiver from the rule that requires a Class I brake test prior to operation if a train is off-air for a period of more than four hours, contending it is too restrictive. See Docket No. FRA-2017-0130. The Safety Board

denied the waiver petition, finding that the relief requested was more appropriately addressed through the rulemaking process and that there was a lack of supporting data submitted with the waiver request. Subsequently, in a letter dated July 12, 2018—included in the public docket to this rulemaking proceeding—AAR submitted a revised petition for rulemaking including substantially more supporting data than the waiver request it submitted in December 2017.

This rulemaking responds to AAR's petition, proposes codification of existing waivers related to brake systems, and makes technical amendments to reduce regulatory burdens while maintaining or improving safety. This rulemaking is a direct result of FRA's effort to periodically review its regulations and propose amendments to the regulations to streamline and update them to reflect technological advances and lessons learned through feedback from all stakeholders.

FRA regulations require the air brake systems of trains, and the air brakes of individual freight cars, to be inspected and tested in certain circumstances. The regulations provide for five primary types of brake system inspections: Class I (initial terminal inspection), Class IA (1,000-mile inspection), Class II (intermediate inspection), Class III (trainline continuity inspection), and an SCT.

A Class I air brake test, also referred to as an initial terminal inspection, is a comprehensive inspection of the brake equipment on each car in an assembled train and is required to be performed at the location where a train is originally assembled, when the consist is changed in certain ways (by adding or removing cars), and when a train is off-air for more than four hours. Class I brake tests are intended to ensure that a train is in proper working condition and capable of traveling to its destination with minimal problems en route. A Class I brake test requires the performance of a leakage test and in-depth inspection of the brake equipment (on both sides of the freight car) to ensure that each car's brake system is properly secure, does not bind or foul, and applies and releases in response to a specified brake pipe pressure signal. Piston travel must also be inspected and adjusted to a specified length if found not to be within a certain range of movement.

A Class IA brake test is required every 1,000 miles. Although it is less detailed than a Class I inspection, a Class IA brake test includes all the same elements of a Class I test, but with less stringent piston travel requirements. The most restrictive car or block of cars in a train determines the location where Class IA tests must be performed.

Class II brake tests, also referred to as intermediate inspections, are less detailed inspections used for cars that do not have a compliant Class I inspection record that are picked up by a train. The test includes a test for excessive brake pipe leakage, charging the air brakes to within 15 psi of working pressure, making a 20-psi reduction in the brake pipe to actuate the brake, restoration of pressure to working psi, and confirmation that all brakes release and full brake pipe pressure has been restored to the rear of the train. Cars that receive a Class II brake test are required to receive a full Class I brake test at the next forward location where it can be performed.

A Class III brake test, also known as a trainline continuity inspection, must be performed any time the brake pipe is opened on an operating train. The test includes charging the air brakes to working pressure (no less than 60 psi at rear of train), making a 20-psi reduction in the brake pipe to actuate the brake on the rear car of the train, releasing the brake, and ensuring that pressure at the rear of the train is restored.

In addition to the types of air brake tests noted above, the regulations require the brakes of individual cars to be periodically maintained and tested in certain circumstances. This test is known as an SCT and is used to validate individual air brake effectiveness. An SCT is required: at least every 8 years for new or rebuilt freight cars, at least every 5 years for all other freight cars, and any time a freight car is on a shop or repair track, if the car has not had a SCT in the previous 12 months.

FRA has identified various waivers that warrant consideration for regulatory codification. In particular, FRA is proposing to incorporate into regulations waivers providing conditional exceptions to rules concerning air brake testing, end-of-train (EOT) devices, and helper service. FRA is also proposing to extend the time that freight rail equipment can be "off-air" before requiring a new brake inspection, proposing various modifications to the existing brake related regulations for clarity, and removing outdated or unnecessary provisions.

The proposed regulatory revisions recognize the use of newer procedures or technologies that have been proven by test waivers to maintain or increase safety. In addition, under the conditions of a waiver, when a waiver is renewed the railroad or manufacturer who applied for the waiver renewal is required to report any related accidents/incidents to FRA. Furthermore, FRA regional offices conduct investigations of any reported accidents/incidents. FRA's renewal of a waiver indicates the operations under a waiver have a safe track record.

Railroads are doing more work (i.e., applying for waivers) than necessary. It would be inefficient to require each party to request, and for FRA to continually renew, these waivers. By formally codifying the relief into regulation, FRA would save the railroads and itself from those burdens. Other railroads would also be relieved from applying for the same waivers. Moreover, once a waiver is codified, railroads may focus on compliance with an accepted standard rather than on the time and resources necessary to interpret the regulation and develop a waiver petition.

Several of the provisions in the NPRM would reduce the paperwork burden on industry. For the 26-C and D-22 type brake valves, FRA is extending the time before these types of valves need to be inspected and cleaned, resulting in fewer tests. FRA is also extending the time before a Class I brake test must be conducted on rail equipment that is not connected to a source of compressed air prior to being operated in a train again, from 4 hours to 24 hours. This NPRM would extend the time between single car air brake tests from 12 to 24 months for automated tests, and to 48 months for automated tests using a

four-pressure receiver. In general, this proposed rule would reduce the number of brake tests, which would in turn reduce the paperwork burden.

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; and 67 FR 17555, Apr. 10, 2002.

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

This information collection request is a revision to the last approved submission. FRA is proposing to revise its regulations governing brake inspections, tests, and equipment. The proposed changes include the incorporation of relief from various provisions provided in long-standing waivers related to single car air brake tests, end-of train devices, helper service, and brake maintenance. In addition, FRA is proposing various modifications to the existing brake related regulations for clarity and to remove outdated or unnecessary provisions.

The proposed revision under § 240.205 would require railroads to develop and implement operating rules to ensure compliant operation of a train if air flow exceeds these parameters after the Class I brake test is completed.

The proposed revision under § 240.213 would require railroads to provide a written designation to FRA of extended haul trains. The submission must also include the location of every expected brake and mechanical inspection, not only the Class I inspections performed by a qualified mechanical inspector, on the designated train.

The proposed revision under § 240.2409 includes requirements for inspection and testing of end-of-train (EOT) devices. While the existing § 232.409 includes EOT device inspection and testing requirements, including testing of "radio frequencies and modulation of the device," it does not include calibration requirements for EOT device air pressure sensors (i.e., air gauges or transducers in lieu of gauges). FRA proposes new paragraph (e) to address this apparent omission.

3. Extent of automated information collection.

FRA strongly endorses and highly encourages the use of advanced information technology, wherever possible, to reduce burden on respondents. Under the requirement in § 232.103(n)(7)(i), railroad notification to FRA that they have developed a plan specifying specific locations or circumstances when railroad equipment may be left unattended may be transmitted electronically or in writing. Such plans must be furnished to FRA upon request, and here, too, railroads may transmit them electronically via e-mail or fax or in writing.

Under § 232.103(n)(10), railroads are required to adopt and comply with procedures to ensure that, as soon as safely practicable, a qualified employee verifies the proper securement of any unattended equipment when the railroad has knowledge that a non-railroad emergency responder has been on, under, or between the equipment. Informational records regarding inspection of equipment by a qualified employee may be kept electronically.

Under § 232.105(h)(2), railroads are required to inspect and, where necessary, repair the locking mechanism during a locomotive's periodic inspection required in § 229.23 of this chapter. Records of inspection and repairs made may be kept electronically by railroads.

Under § 232.205(e), railroads are required to submit notification that the Class I brake test was satisfactorily performed and provide the information to the locomotive engineer or place the information in the cab of the controlling locomotive. The record may be maintained electronically or written.

Under § 232.605, the required railroad and contractor records relating to the training of employees who perform inspection, testing, and maintenance of ECP brake systems may be kept either in writing or electronically.

Under § 232.607, a freight train operating in ECP brake mode must receive a Class I brake test as described in § 232.205(e) by a qualified mechanical inspector. The railroad is required to notify the locomotive engineer that the Class I brake test has been satisfactorily performed, and a written or electronic record of the required information must be retained in the cab of the controlling locomotive until the train reaches its destination. Also, under this section, each car and each solid block of cars not equipped with an ECP brake system that is added to a train operating in ECP mode must receive a visual inspection to ensure that it is properly placed in the train and safe to operate in accordance with the provisions contained in § 232.15. These provisions stipulate that defective equipment must be tagged on both sides of the equipment or locomotive and in the cab of the controlling locomotive or, in lieu of a tag or card, the required information placed in an automated tracking system approved for use by FRA. An electronic or written record or copy of each tag or card attached to or removed from a car or locomotive must be retained for 90 days.

Under § 232.609, a freight car equipped with an ECP brake system that is known to have arrived with ineffective or inoperative brakes at initial terminal of the next train which the car is to be included or at a location where a Class I brake test is required to be performed under § 232.607(b)(1) through (b)(3) must not depart that location with ineffective or inoperative brakes in a train operating in ECP mode unless the car is properly tagged in accordance with § 232.15(b). Also, a freight car equipped with only conventional pneumatic brakes must not move in a freight train operating in ECP brake mode unless it would otherwise have effective and operative brakes if it were part of a conventional pneumatic brake equipped train or could be moved from the location in defective condition under the provisions contained in § 232.15 and is tagged in accordance with § 232.15. Also, a train operating with conventional pneumatic brakes must not operate

with freight cars equipped with stand alone ECP brakes systems unless tagged in accordance with § 232.15(b). Again, in these situations, in lieu of a tag or card, an automated tracking system approved by FRA must be provided, and an electronic or written record or copy of each tag or card attached to or removed from a car or locomotive must be retained for 90 days.

Under § 232.611, a single car brake test must be conducted in accordance with the procedure submitted and approved by FRA on each car retrofitted with a newly installed ECP brake system. These test results must be entered into AAR's electronic recordkeeping system called UMLER (Uniform Machine Language Register).

FRA believes that it is up to each railroad to decide for itself the most appropriate method of recordkeeping, given its financial resources and staffing situations. In keeping with both the goals of the 1995 Paperwork Reduction Act (PRA) and the 1998 Government Paperwork Elimination Act (GPEA), 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 rule's current and new requirements, approximately 21 percent of responses may be kept electronically.

4. Efforts to identify duplication.

To our 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.

Background

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 $37 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.

FRA believes that virtually all small railroads on the general system of rail transportation will be affected by this rule, although not all changes would be relevant to all railroads. There are 692 small railroads on the general system of rail transportation.
FRA estimates that small entities are expected to incur minimal costs under this proposed rule. Small entities owning locomotives may incur a cost to purchase end-of-train (EOT) devices. FRA does not know the number of EOT devices owned by Class III railroads. Using available data, FRA estimates approximately 1,724 EOT devices would need to be purchased for Class III railroads.[3] FRA estimates each EOT device would cost approximately $225 for testing and calibration for the air pressure sensor plus an additional $100 for nominal shopping charges for the railroad to send the EOT device to the manufacturer or other firm for testing, resulting in a total cost of $325 per EOT device.

FRA believes this is not a substantial impact on any small entity.

6. <u>Impact of less frequent collection of information</u>.

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.

The requirements under § 232.103(n) enhance safety by both ensuring that affected

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[1] <u>See</u> 68 FR 24891 (May 9, 2003); 49 CFR Part 209, app. C.

[2] The Class III railroad revenue threshold is $37,108,875 or less, for 2017. (The Class II railroad threshold is between $37,108,875 and $463,860,933; and the Class I railroad threshold is $463,860,933 or more.) *See* Surface Transportation Board FAQs, *available at* https://www.stb.gov/econdata.nsf/eb5a2730831be9b8852575a000495ec8/48f3885d7a5b882e852575190052fa79?OpenDocument.

[3] *See* ASLRRA, *Facts and Figures*, p. 10. The 3,118 Class III railroad locomotives represent 10.14% of all 30,746 locomotives operating in the US, including 912 Class II railroad locomotives and 26,716 Class I railroad locomotives. *See* AAR, *Railroad Facts*, 50 (Washington, DC, 2017 ed.). Multiplying that 10.14% against all 17,000 EOT devices operating in the US, FRA calculates that the Class III railroads operate 1,724 EOT devices.

railroads develop plans that identify specific locations or circumstances where rail equipment may be left unattended and requiring employee verification with another qualified employee of securement of a freight train or freight car left unattended.

Under § 232.103(n)(10), FRA requires railroads to develop procedures to ensure that a qualified railroad employee inspects all equipment that any emergency responder has been on, under, or between for proper securement before the rail equipment or train is left unattended. Without the requirements under § 232.105(h), there would be no way to ensure that locking mechanisms for locomotive cabs are repaired in a reasonable time frame if broken or damaged.

Without the required inspection records in this collection of information, FRA would have no way to verify that the periodic maintenance requirements contained in §232.303(b)-(d) relating to the inspection of freight cars equipped with an ECP brake system were fulfilled according to Federal safety requirements. In the event of an accident/incident, these records would be essential to any investigation seeking to determine exactly what transpired.

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.

If this information were not collected or collected less frequently, FRA could not ensure that necessary brake inspections, tests, and repairs are completed. Consequently, the discovery and correction of minor defects would not occur in time to prevent them from becoming major defects and the source of severe rail accident/incidents. Also, without this information collection, FRA could not ensure that railroads adopt and implement a training, qualification, and designation program for employees and contractors who perform conventional brake system inspections, tests, and maintenance. Having unqualified employees work on conventional freight brake systems would endanger the safety of train crews, the general public, and the intact delivery of train cargo.

In sum, this collection of information advances the mission of FRA, which is to ensure, and promote safety throughout the U.S. rail system.

7. <u>Special circumstances</u>.

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

section.

8. Compliance with 5 CFR 1320.8.

FRA is publishing a Notice of Proposed Rulemaking (NPRM) in the **Federal Register** on January 15, 2020, titled Miscellaneous Amendments to Brake System Safety Standards and Codification of Waivers soliciting comments on the proposed rule and its accompanying information collection requirements from the regulated community, the general public, and interested parties. See 85 FR 2494. 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 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 information collection.

12. Estimate of burden hours for information collected.

CFR Section	Respondent Universe	Total Annual Responses	Average Time per Response	Total Annual Burden Hours	Total Annual Dollar Equivalent Cost[4]
229.27 - Annual tests	30,000 locomotives	120,000 forms/filling	15 minutes	30,000 hours	$2,160,000
232.3 -Applicability - Export, industrial, & other cars not owned by railroads-identification	741 railroads	8 cards	10 minutes	1 hour	$72
232.7 - Waivers	741 railroads	2 petitions	160 hours	320 hours	$23,360

[4] The dollar equivalent cost is derived from the 2018 Association of American Railroads publication titled Railroad Facts (Employment and Annual Wages by Class) using the appropriate employee group to calculate the average hourly wage rate that includes 75 percent overhead charges.

232.15 - Movement of Defective Equipment -Tags/Records - Written Notification	1,620,000 cars 1,620,000 cars	128,400 tags/ records 25,000 notices	2.5 minutes 3 minutes	5,350 hours 1,250 hours	$385,200 $92,500
232.17 - Special Approval Procedure - Petitions for special approval of safety-critical revision - Petitions for special approval of pre-revenue service acceptance plan - Service of petitions - Statement of interest - Comment	741 railroads 741 railroads 741 railroads Public/railroads Public/railroads	1 petition 1 petition 1 petition 4 statements 13 comments	100 hours 100 hours 20 hours 8 hours 4 hours	100 hours 100 hours 100 hours 20 hours 32 hours 52 hours	$7,300 $7,300 $1,460 $2,336 $3,796
232.103-Gen'l requirements - all train brake systems - stickers (n)(7) – RR Plan identifying specific locations or circumstances where equipment may be left unattended - Notification to FRA when RR develops and has plan in place or modifies existing plan - Inspection of Equipment by Qualified Employee after Responder Visit	114,000 cars 741 railroads 741 railroads 741 railroads	70,000 stickers 1 revised plans 1 notice 12 inspect-ions/records	10 minutes 10 hours 30 minutes 4 hours	11,667 hours 10 hours 1 hour 48 hours	$840,024 $730 $73 $3,456
232.107 - Air source requirements and cold weather operations – Monitoring Plan (Subsequent Years) - Amendments/Revisions to Plan - Recordkeeping	10 new railroads 50 railroads/plans 50 railroads/plans	1 plan 10 revisions 1,150 records	40 hours 20 hours 20 hours	40 hours 200 hours 23,000 hours	$2,920 $14,600 $1,679,000

232.109 - Dynamic brake requirements – status/record - Inoperative dynamic brakes: repair record - Tag bearing words “inoperative dynamic brakes” - Deactivated dynamic brakes (Sub. Yrs.) - Operating rules (Subsequent Years) - Amendments/Revisions - Requests to increase 5 mph overspeed restriction - Knowledge criteria - locomotive engineers –Subsequent Years	741 railroads 30,000 locomotives 30,000 locomotives 8,000 locomotives 5 new railroads 741 railroads 741 railroads 5 new railroads	1,656,000 records 6,358 records 6,358 tags 10 markings 5 rules 15 revisions 5 requests 5 amendments	4 minutes 4 minutes 30 seconds 5 minutes 4 hours 1 hour 30 min. + 20 hours 16 hours	110,400 hours 424 hours 53 hours 1 hour 20 hours 15 hours 103 hours 80 hours	$8,059,200 $30,528 $3,816 $72 $1,460 $1,095 $7,519 $5,840
232.111 - Train handling information - Sub. Yrs.-Amendments/Revisions - Report requirements to train crew	5 new railroads 100 railroads 741 railroads	5 procedures 100 revisions 2,112,000 reports	40 hours 20 hours 10 minutes	200 hours 2,000 hours 352,000 hours	$14,600 $146,000 $25,696,000
232.203 - Training requirements - Tr. Prog. - Sub Yr. - Amendments to written program - Training records - Training notifications - Audit program - Amendments to validation/assessment program	15 railroads 741 railroads 741 railroads 741 railroads 741 railroads 741 railroads	5 programs 695 revisions 67,000 records 67,000 notices 1 plan + 695 copies 50 revisions	100 hours 8 hours 8 minutes 3 minutes 40 hours/1 min. 20 hours	500 hours 5,560 hours 8,933 hours 3,350 hours 52 hours 1,000 hours	$36,500 $405,880 $652,109 $244,550 $3,796 $73,000

232.205 – Initial terminal inspection: Class I brake tests and notifications/records (c)(1)(ii)(B) - RR Development /implementation of operating rules to ensure compliant operation of train if air flow exceeds stipulated section parameters after Class I brake test is completed (**New requirement**) (c) (1)(iii) – Form 49A notation/ certification of last date of Air Flow Method (AFM) indicator calibration (Formally under229.29b)	741 railroads 741 railroads 741 railroads	383,840 notices/records 10 revised operating rules 88,000 notations	45 seconds 8 hours 2 minutes	4,798 hours 80 hours 2,933 hours	$355,052 $5,840 $214,109
232.207 - Class 1A brake tests – Designation Lists Where Performed Subsequent Years: Notice of Change to	741 railroads 741 railroads	1 list 250 notices	1 hour 10 minutes	1 hour 42 hours	$73 $3,066
232.209 - Class II brake tests- intermediate “Roll-by inspection – Results to train driver	741railroads	159,740 comments	3 seconds	133 hours	$9,709
232.213 – Written Designation to FRA of Extended haul trains - Notification to FRA Associate Administrator for Safety/FRA Regional Administrator of a change in the location where an extended haul brake test is performed (**New requirement**)	83,000 long dist. Movements 10 railroads	250 letters 250 notices	15 minutes 10 minutes	63 hours 42 hours	$4,599 $3,066
232.219 – Double heading and helper service: Testing/calibration/records of Helper Link devices used by locomotives (**New requirement**)	2 railroads	50 recording of calibrations	2 minutes	2 hours	$148
232.303 - General requirements - single car test: Tagging of Moved Equipment - Last repair track brake test/single car test – Stenciled on Side of Equipment	1,600,000 frgt. cars 1,600,000 frgt. cars	5,600 tags 240,000 markings	5 minutes 2 minutes	467 hours 8,000 hours	$33,624 $576,000

232.307 - Modification of single car air brake test procedures: Requests - Affirmation Statement on Mod. Req. To Employee Representatives - Comments on Modification Request	AAR AAR Railroad/Public	1 request + 3 copies 1 statement + 4 copies 2 comments	20 hours + 5 minutes 30 minutes + 5 minutes 8 hours	20 hours 1 hour 16 hours	$1,460 $73 $1,168
232.309 - Repair track brake test	640 shops	5,000 tests	2 minutes	167 hours	$12,024
232.403 - Unique Code	245 railroads	12 requests	5 minutes	1 hour	$73
232.409 – Inspection/Tests/Records EOTs - Telemetry Equipment – Testing/ Calibration/Rcds (**Revised requirement**)	245 railroads 245 railroads	447,500 notices/record 17,000 recording of calibrations	30 seconds 2 minutes	3,729 hours 567 hours	$268,488 $40,824
232.503- Process to introduce new brake technology - Special approval	741 railroads 741 railroads	1 letter 1 request	1 hour 3 hours	1 hour 3 hours	$73 $219
232.505 - Pre-revenue svc accept test plan - Submission of maintenance procedure - Amendments to maintenance procedure - Design description - Report to FRA Assoc. Admin. for Safety - Brake system technology testing	741 railroads 741 railroads 741 railroads 741 railroads 741 railroads	1 procedure 1 revision 1 petition 1 report 1 description	160 hours 40 hours 67 hours 13 hours 40 hours	160 hours 40 hours 67 hours 13 hours 40 hours	$11,680 $2,920 $4,891 $949 $2,920
TOTALS	741 railroads	5,608,433 responses	N/A	578,268 hours	$42,159,140

Total estimated annual burden for this entire information collection is **578,268** hours. The dollar equivalent cost for these estimated burden hours is **$42,159,140**.

13. <u>Estimate of total annual costs to respondents</u>.

<u>Rule Costs</u>

Section 232.105(h) of the rule requires, after March 1, 2017, that each locomotive left unattended outside of a yard shall be equipped with an operative exterior locking mechanism. AAR standard S-5520 requires that each locomotive left unattended outside of a yard shall be equipped with an operative exterior locking mechanism, and requires

that locomotives be equipped in order to be used in interchange service. These mechanisms will meet the requirements of § 232.105(h). The unit cost for a locking mechanism meeting AAR standard S-5520 is $215.

FRA believes that smaller railroads could comply with § 232.105(h) with a simpler lock and hasp system, for a unit cost of $100. Given the smaller number of locomotives, personnel, territory, and facilities, use of this type of system would not be problematic. FRA believes that no more than 500 locomotives belonging to Class III railroads lack locking mechanisms that comply with new § 232.105(h). Thus, the cost to install the locking mechanisms would be no more than 500 times $100, or $**50,000**.

Additional Costs

Besides the costs to respondents enumerated in the answer to question number 12, there are other miscellaneous costs that railroads will incur annually from the old requirements.

They are as follows:

$7,029.90 Cost to print 140,598 tags @ $.05 per tag
3,500.00 Cost for 70,000 stickers @$.05 ea.

$10,529.90 **TOTAL**

$60,529.90 GRAND TOTAL

14. Estimate of Cost to Federal Government.

A. There is no additional cost to the Federal Government related to the new rule new requirements.

B. The reports required to be submitted to FRA will be reviewed and evaluated by a Motive Power and Equipment Specialist in Washington, D.C. It is estimated 200 hours will be required annually for these reviews. Based on $116 per man hour[5], the annual cost to the Federal Government is $23,200.

15. Explanation of program changes and adjustments.

This information collection request is a revision to the last approved submission. FRA is requesting a total burden of 578,268 hours and 5,608,433 responses. Overall, the burden for this submission has decreased by 501,977 hours and by 24,916,915 responses. The change in burden is due to program changes (an increase) and adjustments (a decrease).

FRA provided a thorough review of this package and determined many of our initial figures were based on rough estimates. Additionally, we realized some of the estimates

[5] GS-14, Step 5 annual salary of $137,491 divided by 2,080 annual hours plus 75-percent overhead.

were double counted and others were outdated. Moreover, other estimates were not Paperwork Reduction Act (PRA) requirements, thus leading to the increased figures, which were decreased accordingly in this submission. Thus, our latest review has refined our estimates to be more accurate. The tables below provide specific information on the review of any that have changed.

TABLE FOR PROGRAM CHANGES

CFR Section	Responses (Previous Submission)	Responses (This Submission)	Burden Hours (Previous Submission)	FRA Burden Hours (This Submission)	Difference (plus/minus)
232.205 – RR Development /implementation of operating rules to ensure compliant operation of train if air flow exceeds stipulated section parameters after Class I brake test is completed (New Requirement)	0	10 revised operating rules	0 hours	80 hours	+ 80 hours + 10 responses
(c) (1)(iii) – Form 49A notation/ certification of last date of Air Flow Method (AFM) indicator calibration (Formerly under 229.29(b))	0	88,000 notations	0 hours	2,933 hours	+ 2,933 hours + 88,000 responses
232.213 – Notification to FRA Associate Administrator for Safety/FRA Regional Administrator of a change in the location where an extended haul brake test is performed (New Requirement)	0	250 notices	0 hours	42 hours	+ 42 hours + 250 responses
232.219 – Double heading and helper service: Testing/calibration/records of Helper Link devices used by locomotives (New Requirement)	0	50 test/ calibrations/ records	0 hours	2 hours	+ 2 hours + 50 responses
232.409 – Telemetry Equipment – Testing/ Calibration/Rcds/ (Revised Requirement)	1,350 tests/ calibrations/ records	17,000 tests/ calibrations/ records	23 hours	567 hours	+ 567 hours + 15,650 responses

Program changes listed above increased the burden by *3,601 hours* and *103,960 responses*.

TABLE FOR ADJUSTMENTS

CFR Section	Responses (Previous Submission)	Responses (This Submission)	Burden Hours (Previous Submission)	FRA Burden Hours (This Submission)	Difference (plus/minus)
232.7 - Waivers	10 petitions	0 petitions	1,600 hours	320 hours	- 1,280 hours - 8 responses

232.103 – Securement job briefings	23,400,000 briefings	0 briefings	195,000 hours	0 hours	- 195,000 hours - 23,400,000 responses
232.105 – General requirements for locomotives: Inspection	30,000 forms	0 forms	2,500 hours	0 hours	- 2,500 hours -30,000 responses
– RR Inspection of locomotive exterior locking mechanism /records	30,000 inspection records	0 inspection records	250 hours	0 hours	- 250 hours - 30,000 responses
– RR Repair, where necessary, of locomotive exterior locking mechanism	73 repairs	0 repairs	73 hours	0 hours	- 73 hours - 73 responses
232.205 – Initial terminal inspection: Class I brake tests and notifications/records	1,646,000 notices/ records	383,840 notices/ records	20,575 hours	4,798 hour	- 15,777 hours - 1,262,160 responses
232.303 – Last repair track brake test/single car test – Stenciled on Side of Equipment	240,000 marks	240,000 marks	20,000 hours	8,000 hours	- 12,000 hours -0 responses
232.305 – Single car brake test/record	240,000 marks	0 marks	240,000 hours	0 hours	- 240,000 hours - 240,000 responses
232.309 - Repair track brake test	5,000 tests	5,000 tests	2,500 hours	167 hours	- 2,333 hours 0 responses
232.407 – EOT Operations requiring 2-way Voice Radio Communications	50,000 verbal comments	0 comments	417 hours	0 hours	- 417 hours - 50,000 responses
232.603 – Configuration management plans	1 plan	0 plans	60 hours	0 hours	- 60 hours - 1 response
- Request for Modification of Standards and Extra Copies to FRA	1 request + 2 copies	0 requests/ copies	8 hours	0 hours	- 8 hours - 3 responses
- Affirmative Statements that RRs have served copies of Modification Request to Employee Representatives	4 statements + 24 copies	0 statements/ copies	6 hours	0 hours	- 6 hours - 28 responses
- Comments on requested modification	4 comments	0 comments	8 hours	0 hours	- 8 hours - 4 responses
232.605 - ECP Brakes Training of Employees – First Year	748 inspectors + 854 tr. crew	0 inspectors/tr. crew	26,480 hours	0 hours	- 26,480 hours - 1,602 responses
- ECP Brakes Training of Employees – Subsequent Years	748 inspectors + 854 tr. crew	0 inspectors/tr. crew	7,580 hours	0 hours	- 7,580 hours - 1,602 responses
- ECP Training Records -Yr. One	1,602 records	0 records	214 hours	0 hours	- 214 hours - 1,602 response
- ECP Training Records - Subsequent Yrs.	1,602 records	0 records	107 hours	0 hours	- 107 hours - 1,602 response
- Assessment of ECP Training Plan	1 ECP plan	0 ECP plan	40 hours	0 hours	- 40 hours - 1 response
- Adopt Operating Rules for ECP Brakes	1 oper. rule	0 oper. rule	24 hours	0 hours	- 24 hours - 1 response

- Amended Locomotive Engineer Certification Program (ECP Brakes)	1 amended programs	0 amended programs	40 hours	0 hours	- 40 hours - 1 response
232.607 - ECP Inspection and Testing - - Initial Terminal - Inspections and Notification/Record of Class I Brake Tests	750 insp.+ 750 notices	0 insp/notices	1,134 hours	0 hours	- 1,134 hours - 1,500 responses
- Cars added or removed en route - Class I Brake Test and Notification	50 inspection + 25 notices	0 insp/notices	50 hours	0 hours	- 50 hours - 75 responses
- Non-ECP cars added to ECP Trains - Inspections and Tags for Defective Cars	25 insp.+ 50 tags/records	0 insp/tags/rcds	4 hours	0 hours	- 4 hours - 75 responses
232.609 - Handling of Defective Equipment with ECP Brake Systems – Freight Car w /defective conventional brakes moved in train operating in ECP brake mode	50 tags/ records	0 tags/ records	2 hours	0 hours	- 2 hours - 50 responses
- Inspections/Tagging for train moving in ECP brake mode w/less than 85 percent operative/effective brakes	10 insp. + 20 tags/records	0 tags/records	2 hours	0 hours	- 2 hours - 30 responses
- Freight cars equipped with ECP brake system moving in ECP brake mode found with ineffective or inoperative brake hauled/tagged in accordance with Section 232.15	50 tags/ records	0 tags/records	2 hours	0 hours	- 2 hours - 50 responses
- Train operating w/conventional pneumatic brakes operating w/freight cars equipped with stand alone ECP brake system: Tagging sand-alone ECP brake equipped cars in accordance w/section 232.15	50 tags/ records	0 tags/ records	2 hours	0 hours	- 2 hours - 50 responses
- Procedures for handling ECP brake system repairs and designation of repair locations	1 procedure	0 procedure	24 hours	0 hours	- 24 hours - 1 response
- List of repair locations	1 list	0 list	8 hours	0 hours	- 8 hours - 1 response
- Notification to FRA Safety Administrator regarding change to repair location list	1 notification	0 notification	1 hour	0 hours	- 1 hour - 1 response
232.611 - Periodic Maintenance--Inspections before being released from repair Shop	300 insp./rcds	0 inspections /records	50 hours	0 hours	- 50 hours - 300 responses
- Procedures/Petition for ECP Single Car Test	1 petition + 2 copies	0 petitions/ copies	24 hours	0 hours	- 24 hours - 3 responses
- Single Car Air Brake Tests – Records	50 tests/ records	0 tests/records	38 hours	0 hours	- 38 hours - 50 responses

- Modification of Single Car Test Standards	1 revised single car test procedure	0 procedures	40 hours	0 hours	- 40 hours - 1 response

Adjustments above decreased the number of burden hours by **505,578 hours**.

The current inventory shows a burden total of *1,080,245 hours*, while the present submission exhibits a burden total of *578,268 hours*. Hence, there is a total burden decrease of **501,977 hours** for this information collection request.

There is no **change** in the 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.