

**INFORMATION COLLECTION
SUPPORTING JUSTIFICATION
Passenger Equipment Safety Standards
OMB No. 2130-0544**

Summary

- FRA is publishing a Notice of Proposed Rulemaking (NPRM) titled Passenger Equipment Safety Standards; Standards for Alternative Compliance and High-Speed Train Sets on December 6, 2016. See 81 FR 88006.
- The total **burden requested** for this proposed information collection is **4,603,760 hours**.
- The total **burden currently approved** for this information collection amounts to **4,438,132**.
- Total burden increase then amounts to **165,628 hours**.
- **Program changes** increased the burden by **2,182 hours** and increased responses by **1,620**.
- **Adjustments** increased the burden by **163,446 hours** and decreased the burden by **9,337 responses**.
- Total number of **responses requested** for this proposed information collection is **4,779,934**.
- Total number of **responses previously approved** for this information collection amounted to **4,787,651**.
- Total number of **responses decreased** by **7,717**.
- ****The answer to question number 12** itemizes the hourly burden associated with each requirement of this rule (See pp. 19-136).

1. Circumstances that make collection of the information necessary.

In September 1994, the Secretary of Transportation (Secretary) convened a meeting of representatives from all sectors of the rail industry with the goal of enhancing rail safety. As one of the initiatives arising from this Rail Safety Summit, the Secretary announced

that DOT would begin developing safety standards for rail passenger equipment over a five-year period. In November 1994, Congress adopted the Secretary's schedule for implementing rail passenger equipment safety regulations and included it in the Federal Railroad Safety Authorization Act of 1994 (the Act), Public Law 103-440, 108 Stat. 4619, 4623-4624 (November 2, 1994). Congress also authorized the Secretary to consult with various organizations involved in passenger train operations for purposes of prescribing and amending these regulations, as well as issuing orders pursuant to them. See section 215 of the Act (codified at 49 U.S.C. 20133).

On May 4, 1998, pursuant to section 215 of the Act, FRA published the Passenger Train Emergency Preparedness (PTEP) final rule. See 63 FR 24629. The PTEP final rule contained minimum Federal safety standards for the preparation, adoption, and implementation of emergency preparedness plans by railroads connected with the operation of passenger trains, including freight railroads hosting the operations of passenger rail service. The rule also established specific requirements for passenger train emergency systems, and contained specific requirements for participation in debrief and critique sessions following emergency situations and full-scale simulations.

On May 12, 1999, FRA published the Passenger Equipment Safety Standards (PESS) final rule. See 64 FR 25540. The PESS final rule established comprehensive safety standards for railroad passenger equipment, including requirements for carbody structure and emergency systems. FRA subsequently amended the final rule to address petitions seeking FRA's reconsideration of certain requirements contained in the rule; FRA grouped issues together and published three sets of amendments to the final rule. See 65 FR 41284, Jul. 3, 2000; 67 FR 19970, Apr. 23, 2002; and 67 FR 42892, Jun. 25, 2002.

FRA has engaged in a number of rulemakings to amend and enhance its passenger safety requirements. On October 19, 2006, FRA published a final rule addressing various requirements related to the inspection, testing, and operation of passenger equipment, as well as the attachment of safety appliances. See 71 FR 61835. On February 1, 2008, FRA published the Passenger Train Emergency Systems final rule promoting passenger occupant safety by addressing emergency communication, emergency egress, and rescue access requirements. See 73 FR 6370. FRA has also established additional requirements for passenger train emergency systems, including doors used for emergency egress and rescue access, on November 29, 2013, see 78 FR 71785, and revised and clarified its PTEP regulations on March 31, 2014, see 79 FR 18128.

On January 8, 2010, FRA published a final rule enhancing requirements for the structural strength of the front end of cab cars and MU locomotives. See 75 FR 1180. FRA's inclusion of energy-absorption requirements in the 2010 rulemaking was intended to address traditional cab car and MU locomotive designs that have very strong underframes with relatively weaker superstructures, for which it is vitally important to provide protection to crewmembers and passengers in the event that the superstructure is

impacted. FRA applied mature technology and design practice to extend requirements from linear-elastic to elastic-plastic, together with descriptions of allowable deformations without complete failure of the system. Although FRA believed at the time of the rulemaking that the alternative performance requirements would principally be applied to shaped-nose equipment designs or CEM designs, or both, FRA intended that the alternative performance requirements also be applicable to conventional flat-nosed equipment designs. The alternative performance requirements allow in particular for innovative designs that protect the occupied volume for its full height, even without what would be identified as full-height collision and corner posts, and the rule has been applied to such innovative end frame designs along with traditional end frame designs.

On March 13, 2013, FRA issued a final rule (78 FR 16052) to amend the Federal Track Safety Standards to promote the safe interaction of rail vehicles and the track over which they operate at speeds up to 220 mph. That final rule revised the track geometry and safety limits for various track classes, extended the limits for the highest track speeds from 200 to 220 mph (Class 9 track), and affirmed the maximum authorized speed for Class 8 track is 160 mph. This proposed rule would make the maximum authorized operating speed for Tier II passenger equipment consistent with the limits for Class 8 track. Under the proposal, existing Tier II operations, which FRA has approved to operate at speeds up to 150 mph, would be required to provide sufficient testing and vehicle/track interaction performance data required under 49 CFR §§ 213.329 and 238.111 and obtain FRA approval before any operations occur at the new maximum authorized speed of 160 mph.

With this rule, FRA is proposing to amend its regulations for passenger equipment safety standards. This proposed rulemaking would add a new tier of safety standards (Tier III) to facilitate the safe implementation of high-speed rail at speeds up to 220 miles per hour (mph) when operating on rail lines used exclusively by Tier III trains and with no highway rail grade crossings, and at speeds up to 125 mph when operating on rail lines shared freight or conventional passenger trains or with highway-rail grade crossings. The proposal also would establish crashworthiness and occupant protection performance requirements in the alternative to those currently specified for passenger trainsets operated at speeds up to 125 mph (Tier I). In addition, as mentioned above, the proposal would increase from 150 mph to 160 mph the maximum speed allowed by FRA's existing regulations for passenger that complies with FRA's Tier II passenger equipment standards.

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

FRA uses the information collected – and will use the information to be collected from the proposed rule's new requirements – to enforce compliance with Federal safety regulations. In particular, FRA will use the railroad report of test results for Tier II and Tier III passenger equipment and the railroad pre-revenue service acceptance plan for

Tier II and Tier III equipment under revised section 238.111 to ensure that such equipment meets the performance standards of this rule and is safe and suitable to be placed in service before any railroad actually does so.

FRA will use the analysis information collected under section new 238.703 to verify railroad compliance with any of the quasi-static requirements of this section for Tier III trainsets. Compliance may be achieved through testing to the specified load or a combination of elastic testing and plastic analysis. At a minimum, an end compression load of no less than 337,000 pounds-force (lbf) must be applied to the car body structure to validate the plastic analysis.

FRA will use the model validation document collected under new section 238.705 to ascertain that the occupied volume integrity (OVI) of Tier III trainsets in a dynamic collision scenario has been maintained, thus protecting all occupants of the trainset. This document must be submitted to FRA for review and approval. Regardless of the type of analysis employed to demonstrate a trainset's ability to meet the collision scenario requirements, the analytical model must undergo some level of validation for the results to be considered acceptable. The validation to be performed on the model used in the collision scenario would be in addition to any validation required for a model used to demonstrate the quasi-static OVI of the trainset undergoing evaluation. While full-scale destructive testing of a trainset undergoing evaluation is not expected, FRA expects that any designated energy-absorbing components will be tested at the component-level. The results of these component tests would be used to validate a model of the same type to be used to demonstrate the trainset's ability to meet the dynamic collision scenario.

FRA will use the information collected under new section 238.707 and 238.709 to ensure that Tier III trainsets comply with the override protection and fluid entry inhibition requirements stipulated in this regulation. FRA will review the required railroad analysis for section 238.707 to determine that the evaluated Tier III trainset resists vertical climbing or override during a dynamic collision scenario to preserve essential space for the safety of occupants. FRA will review the fluid inhibition analysis information to ensure that the occupied volume of Tier III trainsets is protected in light of the fact that the front end structure of Tier I and Tier III equipment at this location is vulnerable in a highway-grade crossing collision if a fuel tank that is part of or being transported by the highway vehicle ruptures. The information collected in sections 238.721 through 238.751 will be used by FRA to ensure the specific performance requirements in these sections are met for Tier III equipment.

Under the current regulation, FRA reviews plans submitted by railroads under the requirement in § 238.213 to ensure new sub cab cars and MU locomotives, utilizing low-level passenger boarding on the non-operating side of the cab and built with two corner posts on the opposite side (non-operating) side of the cab from the control stand, meet all the enhanced requirements set forth in § 238.213(c)(2) through (c)(4) in lieu of the

requirements of § 238.213(b). Further, FRA reviews the information collected from the requirements relating to passenger equipment to ensure that all new and existing safety appliances directly attached to the equipment by welding are properly identified, inspected, and handled according to § 238.229 and §238.230 so as to reduce the risk of accidents/incidents and corresponding casualties that result from safety appliances failing while in use.

FRA Motive, Power, and Equipment (MP& E) Inspectors and State Equipment Inspectors use Special Notices for Repair and the responses they generate to ensure that railroad passenger equipment is in serviceable condition and fully complies with the safety standards set forth in this Part. Upon receipt of such a notice, railroads are obligated to remove the designated passenger equipment found not to be in serviceable condition and restore this equipment so that it fully complies with all the applicable requirements of Part 238. When the equipment is returned to service, railroads must notify the appropriate FRA Regional Administrator, specifying the repairs which have been completed.

Information regarding commuter or passenger trains in consists with defective equipment – whether power brake or other than power brake defects – found during a Class I or Class IA brake test are used by railroads and by FRA to track defective equipment and to ensure the safe movement of trains and equipment. Such equipment can only be moved if certain conditions are met. For example, such equipment must be tagged or, in lieu of tagging, placed in an FRA approved automated tracking system. For passenger equipment that develops defects en route, the crew member-in-charge and subsequently all crew members must be notified by the qualified maintenance person of the presence of the defective condition(s) and the maximum speed and other restrictions under which it is safe to move the train. This information – tagging, use of automated tracking systems, and notification of crew members – enables railroad employees (train crews, maintenance workers, roadway workers, etc.) to take appropriate safety measures both to reduce the likelihood of accident/incidents (e.g., derailments, collisions) and to protect themselves from serious personal injuries.

FRA reviews waiver petitions to determine whether it is safe and in the public interest to grant exceptions to any of the requirements of this rule. FRA reviews petitions for special approval of alternative standards, and alternative compliance to evaluate railroads' proposals concerning passenger equipment that they believe may be more suitable to the service environment in which they operate. FRA carefully reviews these petitions and accompanying data and analyses, as well as any pertinent comments, and approves them only if safety levels equivalent to agency standards are met. Petitions that are approved provide flexibility to railroads in meeting the requirements set forth in Part 238.

In general, FRA requires railroads to adopt pre-revenue service testing plans to ensure the safety of their passenger equipment before it is placed in passenger service. For passenger equipment that has not been used in revenue service in the United States, railroads must submit these plans to FRA and, in the case of high speed equipment, receive FRA approval prior to placing the equipment in revenue service. The preparation and submission of test plans to FRA serves to ensure and maintain rail safety through the agency's thorough review as well as to minimize railroad costs in the long run by helping to identify potential safety hazards before they lead to personal injury and equipment damage.

FRA diligently analyzes new passenger equipment design information submitted by equipment manufacturers on behalf of railroads to ensure that fire safety considerations and features in the design of this equipment (i.e., locomotives or passenger cars being purchased by railroads) reduce the risk of personal injury to passengers and crew members in the event of fire evacuation and reduce the risk of equipment damage. Refresher training sessions conducted for railroad employees who perform daily mechanical inspections are used by railroads to provide these employees with continual and current information so that they are thoroughly familiar with both old and new equipment, as well as the various tasks they are required to perform as part of their jobs. Refresher training information facilitates better mechanical inspections being performed by railroad employees, resulting in the detection and correction of defective equipment. Thus, equipment conditions requiring maintenance attention are more likely to be found during mechanical inspections while the equipment is still at a maintenance or yard site where repairs can be more easily effected. Better training means troubleshooting will take less time, and also means that more maintenance will be done right the first time. Continual training then translates into greater awareness and improved job performance by railroad workers which, in turn, translates into an overall improved safety record. FRA uses the records that railroads are required to keep to verify that railroad employees and railroad contractors performing safety-related tasks on passenger equipment are currently qualified to do so. FRA examines these records to monitor railroad operations and to ensure that unskilled or unqualified railroad workers do not perform safety-sensitive tasks on passenger equipment. Careful review of the required passenger equipment records serves both the railroads' interests and agency safety objectives.

FRA uses information submitted by railroads regarding welded safety appliances to ensure that passenger equipment equipped with a safety appliance directly attached to it by welding is safe to operate and to ensure that the involved safety appliance(s) on such equipment is inspected and handled according to the requirements contained in this regulation. FRA reviews welded repair records to ensure that necessary and proper remedial action that accords with this proposed rule's specified standards is taken by railroads regarding passenger equipment with a safety appliance bracket or support that has a defect or crack in a weld due to crash damage, improper construction, or inadequate design.

FRA reviews locomotive brake system information to ensure that hand or parking brakes on locomotives, as well as each locomotive's part and appurtenances, are inspected and necessary repairs made on an annual basis (not less frequently than every 368 days). FRA will review required air compressor information on passenger equipment to ensure that these air compressors are in effective and operative condition. Further, FRA will review this information to ensure that railroads demonstrate through verifiable data, analysis, or actual testing that the safety and integrity of a train is not compromised in any manner when MU passenger equipment is found with an inoperative or ineffective air compressor at the time of its exterior calendar day mechanical inspection and the railroad aims to keep this equipment in passenger service until the next exterior calendar day mechanical inspection (where it must be repaired or removed from passenger service).

Finally, FRA also uses – and has used – the collection of information after an incident or accident to assist its investigators in determining the cause(s) of the incident/accident, as well as possible contributing factors to the event. Specifically, FRA personnel carefully review all records kept by the railroad(s) to examine in detail how a railroad has conducted its operations. Under this rule, FRA personnel conduct periodic spot checks to ensure that the railroads are fully complying with the provisions. Railroads are subject to civil penalties if found not to be in compliance. Collecting this information then provides data that enables FRA to accomplish its mission of promoting and ensuring safe rail transportation throughout the United States.

3. Extent of automated information collection.

FRA highly endorses and strongly encourages the railroad industry to avail itself of the latest information technology, wherever feasible, to reduce burden. For years, FRA has encouraged the use of advanced information technology, particularly electronic records. In most circumstances regarding this rule, FRA provides railroads the option of keeping information electronically. However, FRA believes that each railroad is in the best position to determine for itself the most effective and efficient method of maintaining the required information, based on its specific operation. Thus, if a railroad so chooses, it may maintain its records electronically. FRA believes permitting railroads such flexibility will serve to minimize and actually will reduce the burden costs and burden hours associated with this rule.

There are a variety of instances in the rule where FRA provides railroads the opportunity to utilize the latest information technology. Railroads have the choice, if they so desire, to maintain their records by electronic means under the following sections: 238.15(c)(2), 238.17(c)(4), 238.19(b), 238.229(k), 238.231(h)(3), 238.303(e)(17)(vi), 238.303(g)(1), 239.305(f)(1), 238.307(d)(2), 238.307(e)(1), 238.309(f)(1), 238.313(h)(1), and 238.313(j)(3). Thus, if railroads were to keep all these required records electronically, approximately 85 percent of responses would 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.

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 as proposed. For the proposed rule, there is only one type of small entity that would be affected: small passenger railroads.

“Small entity” is defined in 5 U.S.C. 601(3) as having the same meaning as “small business concern” under section 3 of the Small Business Act. This includes any small business concern that is independently owned and operated, and is not dominant in its field of operation. 5 U.S.C. 601(5) defines “small entities” as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations less than 50,000.

The U.S. Small Business Administration (SBA) stipulates “size standards” for small entities. It provides that industry sectors relevant for the proposed rulemaking must not exceed the limits listed below (and still classify as a “small entity”):¹

- 1,000 employees for the railroad rolling stock manufacturing.
- 1,500 employees for line haul operating railroads.
- 500 employees for motor and generator manufacturing.
- 500 employees for switching and terminal establishments.

Federal agencies may adopt their own size standards for small entities in consultation with SBA, and in conjunction with public comment. Under the authority provided to it by the Small Business Administration, (SBA), FRA published a final policy, which formally establishes small entities as railroads that meet the line haulage revenue requirements of a Class III railroad.² Currently, the revenue requirements are \$20 million or less in annual operating revenue, adjusted annually for inflation. The \$20 million limit (adjusted annually for inflation) is based on the Surface Transportation Board’s threshold of a Class III railroad, which is adjusted by applying the railroad revenue deflator adjustment.³ FRA is proposing to use this definition for this NPRM.

¹ U.S. Small Business Administration, “Table of Small Business Standards Matched to North American Industry Classification System Codes,” effective November 5, 2010.

² See 68 FR 24891, May 9, 2003.

³ For further information on the calculation of the specific dollar limit, please see 49 CFR part

For purposes of this analysis, there are only two intercity passenger railroads, Amtrak and the Alaska Railroad. Neither is considered to be a small entity. Amtrak is a Class I railroad and the Alaska Railroad is a Class II railroad. The Alaska Railroad is owned by the State of Alaska, which has a population well in excess of 50,000. There are currently 28 commuter or other short-haul passenger railroad operations in the U.S., most of which are part of larger transportation organizations that receive Federal funds and serve major metropolitan areas with populations greater than 50,000. However, two of these passenger railroads do not fall in this category and are considered small entities: the Hawkeye Express and the Saratoga & North Creek Railway. The Hawkeye Express provides service to Iowa City, Iowa, and is owned by a Class III railroad, a small entity. The Saratoga & North Creek Railway started operations in 2011, serving several stations between North Creek and Saratoga Springs, New York, and meets the criteria to be considered a small entity.

It is important to note that the two railroads being considered in this analysis use passenger rolling stock that is different from the equipment covered by the proposed rulemaking. Furthermore, the Hawkeye Express or the Saratoga & North Creek Railway would be able to find their current trainset types in the market if they decided to acquire new rolling stock over the next 30 years.

This proposal does not increase costs for these small passenger railroads. FRA expects the cost to acquire passenger rail equipment would drop as a result of the proposed rulemaking. These two railroads would have more variety in trainset models available for passenger operations and options in companies supplying equipment in the U.S. market. Additionally, small railroads would enjoy lower prices as the U.S. passenger rail market is enlarged by the proposed rulemaking, enhancing economies of scale and increasing predictability for equipment orders.

The passenger rail equipment manufacturing sector in the United States has a fairly small number of firms with no more than 15 Original Equipment Manufacturers (OEM) and a few hundred component and subcomponent suppliers.⁴ However, for this analysis, FRA is taking a broader approach by assessing the effect of the regulation as proposed on the railroad rolling stock manufacturing sector as defined by the North American Industry Classification System (NAICS), which includes the passenger rail and urban rapid transit equipment manufacturing industry, but goes beyond by also covering freight, and maintenance-of-way vehicles. This approach includes firms that currently do not

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⁴ Lowe, M., Tokuoka, S., Dubay, K., and Gereffi, G., "U.S. Manufacture of Rail Vehicles for Intercity Passenger Rail and Urban Transit: A Value Chain Analysis," Center on Globalization, Governance & Competitiveness, June 24, 2010.

manufacture passenger rail equipment, but can potentially enter the market. Based on data from the U.S. Census Bureau, employment on these industries is as follows:

- NAICS code 336510, Railroad rolling stock manufacturing, 159 firms in the industry, and 137 firms with less than 500 employees.
- NAICS code 335312, Motor and generator manufacturing, 428 firms in the industry, and 384 firms with less than 500 employees,

The main impact affecting these industries from the rule as proposed would be qualification costs for Tier I alternative and Tier III trainsets. As noted in the Regulatory Impact Analysis accompanying this NPRM, companies supplying trainsets covered by the rulemaking would be required to submit test and analysis results to demonstrate compliance with the safety requirements. However, in the case of rolling stock manufacturing, this cost would only be incurred by the OEM when submitting a qualification package, which would include details regarding the performance of the trainset model in the required tests and analyses. Therefore, small and very small firms supplying OEMs are not expected to be required to submit that information. Small firms could be expected to benefit from existing requirements for minimum domestic content as more trainsets are purchased by U.S. railroad operators. Small business would have the opportunity to supply OEMs with domestic inputs and to partner with larger firms to allow small domestic producers to meet the needs of the market being created by the regulatory proposal. This means that FRA expects the proposed rulemaking to have only a positive impact on these small entities as more of them are provided with the opportunity to enter the passenger railroad equipment manufacturing industry.

Previously, FRA sampled small railroads and found that revenue averaged approximately \$4.7 million (not discounted) in 2006. One percent of average annual revenue per small railroad would be \$47,000. FRA realizes that some railroads will have revenue lower than \$4.7 million. However, FRA estimates that small railroads would not have any additional expenses over the next 10 years to comply with the requirements as proposed in this NPRM. Based on this, FRA concludes that the expected burden of this rule as proposed would not have a significant impact on the competitive position of small entities, or on the small entity segment of the railroad industry as a whole.

This final rule would likely burden all small railroads that are not exempt from its scope or application (*See* 49 CFR 238.3). Thus, this proposed rule would impact a substantial number of small railroads.

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 605(b)), FRA certifies that this proposed rule would not have a significant economic impact on a substantial number of small entities. FRA invites all interested parties to submit data and information regarding the potential economic impact that would result from adoption of the proposals in this

NPRM. FRA will consider all comments received in the public comment process when making a final determination for certification of the final rule.

6. Impact of less frequent collection of information.

If this information were not collected or were collected less frequently, rail safety throughout the United States would be seriously jeopardized. Specifically, the number and severity of railroad accidents/incidents and accompanying injuries and fatalities might rise dramatically if FRA were unable collect this information and thus monitor railroad operations and safety practices. Safety programs and safety oversight require timely and accessible information in order to be effective. In an increasingly complex rail operating environment, this is especially true. Passenger train exposure to accidents and the probability of other emergency situations is expected to increase with greater freight and passenger rail volumes, and the growth of the intermodal sector (mixed passenger and freight cars).

The information collected in the current rule's present requirements – and in the rule's amended/additional requirements – is designed to mitigate such exposures and to enhance railroad safety in a number of ways. One way is by ensuring that proper inspections, tests, and maintenance of railroad equipment are performed by appropriately trained personnel at prescribed intervals. Through such inspections tests and maintenance, passenger cars with defective safety appliances or defective power brakes or other defective components can be identified and properly handled or repaired in a safe and effective manner. This increased scrutiny will not only prevent unnecessary rail delays but will also reduce the risks of collisions, derailments, and other accidents/incidents which may cause injury or death to railroad passengers, railroad employees, and the general public. Failure to collect this information, or to do so less frequently, might mean more passenger cars operating with defective equipment that would go undetected, or more unskilled or unqualified individuals performing safety-sensitive tasks that lead to derailments, collisions, and other adverse rail events.

The advent of new technology and high speed trains makes the collection of this information more essential than ever before. Operations at higher speeds afford a smaller margin for error than under normal operating conditions. Injuries are likely to be more severe at these speeds and casualties decidedly higher unless a safe operating environment is established, maintained, and enforced. Not conducting the collection of information or conducting it less frequently would hinder FRA in carrying out its agency mission and overseeing a vital part of its comprehensive safety program.

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

7. Special circumstances.

Under the periodic brake maintenance section (238.309), periodic tests referred to as Clean, Oil, Test, and Stenciling (COT&S) for passenger coaches and cab cars can occur in a timeframe ranging from every 736 days to every 1,476 days. Periodic COTS tests for other unpowered vehicles can occur in a timeframe from every 736 days to every 2,208 days. A record of these tests must be kept in the railroad's files, the cab of the locomotive, or a designated location in the passenger car until the next such periodic test. Consequently, some of these records will be kept up to six years (depending on the next periodic test).

Pursuant to § 238.103(b), fire safety certifications for materials in passenger equipment are kept as long as the equipment is owned by the railroad (about 20 years) and will be transferred with the equipment when sold by one railroad to another railroad.

All other information collection requirements contained in the rule are in compliance with this section.

8. Compliance with 5 CFR 1320.8.

FRA is publishing a Notice of Proposed Rulemaking titled Passenger Equipment Safety Standards; Standards for Alternative Compliance and High-Speed Train Sets on December 6, 2016. See 81 FR 88006. In this proposed rulemaking, FRA is soliciting comment both on the proposed rule and its associated collection of information. FRA will respond to any comments received on the proposed rule or its associated information collection in the final rule. FRA will also respond to comments on the proposed rule's collection of information in the final rule's information collection submission.

Background

FRA established the RSAC in March 1996, and it serves as a forum for developing consensus recommendations on rulemakings and other safety program issues. The RSAC includes representation from all of the agency's major stakeholders, including railroads, labor organizations, suppliers and manufacturers, and other interested parties. A list of member groups follows:

American Association of Private Railroad Car Owners (AAPRCO);
American Association of State Highway and Transportation Officials (AASHTO);
American Chemistry Council;
American Petroleum Institute;
American Public Transportation Association (APTA);
American Short Line and Regional Railroad Association (ASLRRA);
American Train Dispatchers Association (ATDA);
Association of American Railroads (AAR);
Association of Railway Museums;

Association of State Rail Safety Managers (ASRSM);
 Brotherhood of Locomotive Engineers and Trainmen (BLET);
 Brotherhood of Maintenance of Way Employees Division (BMWED);
 Brotherhood of Railroad Signalmen (BRS);
 Chlorine Institute;
 Federal Transit Administration (FTA);*
 Fertilizer Institute;
 High Speed Ground Transportation Association (HSGTA);
 Institute of Makers of Explosives;
 International Association of Machinists and Aerospace Workers;
 International Association of Sheet Metal, Air, Rail and Transportation
 Workers (SMART), including the Sheet Metal Workers' International Association
 (SMWIA) and United Transportation Union (UTU);
 International Brotherhood of Electrical Workers (IBEW);
 Labor Council for Latin American Advancement (LCLAA);*
 League of Railway Industry Women;*
 National Association of Railroad Passengers (NARP);
 National Association of Railway Business Women;*
 National Conference of Firemen & Oilers;
 National Railroad Construction and Maintenance Association (NRCMA);
 National Railroad Passenger Corporation (Amtrak);
 National Transportation Safety Board (NTSB);*
 Railway Supply Institute (RSI);
 Safe Travel America (STA);
 Secretaria de Comunicaciones y Transporte (Mexico);*
 Tourist Railway Association, Inc.;
 Transport Canada;*
 Transport Workers Union of America (TWU);
 Transportation Communications International Union/BRC (TCIU/BRC); and
 Transportation Security Administration (TSA).*
 *Indicates associate membership.

When appropriate, FRA assigns a task to the RSAC, and after consideration and debate, RSAC may accept or reject the task. If the task is accepted, the RSAC establishes a working group that possesses the appropriate expertise and representation of interests to develop recommendations to FRA for action on the task. These recommendations are developed by consensus. A working group may establish one or more task forces to develop facts and options on a particular aspect of a given task. The individual task force then provides that information to the working group for consideration.

When a working group comes to unanimous consensus on recommendations for action, the package is presented to the full RSAC for a vote. If the proposal is accepted by a simple majority of RSAC members, the proposal is formally recommended to the

Administrator of FRA. FRA then determines what action to take on the recommendation. Because FRA staff members play an active role at the working group level in discussing the issues and options and in drafting the language of the consensus proposal, FRA is often favorably inclined toward the RSAC recommendation.

FRA, though, is not bound to follow the recommendation, and the agency exercises its independent judgment on whether a recommended rule achieves the agency's regulatory goal(s), is soundly supported, and is in accordance with policy and legal requirements. Often, FRA varies in some respects from the RSAC recommendation in developing the actual regulatory proposal or final rule. Any such variations would be noted and explained in the rulemaking document issued by FRA. However, to the maximum extent practicable, FRA utilizes RSAC to provide consensus recommendations with respect to both proposed and final agency action. If RSAC is unable to reach consensus on a recommendation for action, the task is withdrawn and FRA determines the best course of action.

On May 20, 2003, FRA presented the RSAC with the task of reviewing existing passenger equipment safety needs and programs and recommending consideration of specific actions that could be useful in advancing the safety of passenger rail service. In turn, the RSAC accepted the task and established the PSWG to handle the task and develop recommendations for the full RSAC to consider. Members of this Working Group, in addition to FRA, include the following:

Association of American Railroads (AAR), including BNSF Railway Company (BNSF), CSX Transportation, Inc. (CSXT), and Union Pacific Railroad Company (UP);
American Association of Private Railroad Car Owners (AAPRCO);
American Association of State Highway and Transportation Officials (AASHTO);
Amtrak;
American Public Transportation Association (APTA, including Bombardier, Inc., Herzog Transit Services, Inc., Interfleet Technology, Inc. (Interfleet), Long Island Rail Road (LIRR), Maryland Transit Administration (MTA), Metro-North Commuter Railroad Company (Metro-North), and Northeast Illinois Regional Commuter Railroad Corporation;
American Short Line and Regional Railroad Association (ASLRRA);
American Train Dispatchers Association (ATDA);
Brotherhood of Locomotive Engineers and Trainmen (BLET);
Brotherhood of Railroad Signalmen (BRS);
International Brotherhood of Electrical Workers (IBEW);
National Association of Railroad Passengers (NARP);
National Railroad Construction and Maintenance Association (NRCMA);
National Transportation Safety Board (NTSB);
Railway Supply Institute (RSI);
SMART, including SMWIA and UTU;

Safe Travel America (STA);
Transportation Communications International Union/BRC (TCIU/BRC);
Transport Canada;
Transportation Security Administration (TSA); and
Transport Workers Union of America (TWU);..

On September 23, 2009, the Working Group established the ETF. The ETF was given the mission of developing technical criteria for the evaluation of passenger rail equipment built to alternative designs. Members of the ETF include representatives from various organizations that are part of the larger Working Group and, in addition to FRA, include the following:

AAR;
AAPRCO;
AASHTO, including California Department of Transportation, and Interfleet;
APTA, including Alstom, Ansaldo Breda, Bombardier, Central Japan Railway Company (JRC), China South Locomotive and Rolling Stock Corporation (CSR), Denver Regional Transportation District (RTD), East Japan Railway Company, Faiveley Transport, GE Transportation, Japan International Transport Institute, Japan's Ministry of Land, Infrastructure, Transport and Tourism, Kawasaki, Keolis, KPS N.A., LIRR, LTK Engineering Services, Marsh, Metro-North, Nippon Sharyo, Parsons Brinckerhoff, PS Consulting, Safetran Systems, SEPTA, Sharma & Associates, Siemens, Southern California Regional Rail Authority (SCRRA), Stadler, STV, Talgo, Texas Central Railway, Veolia, Voith Turbo, and Wabtec;
Amtrak;
ASLRRA;
BLET;
European Railway Agency (ERA);
NTSB;
RSI, including Battelle Memorial Institute, and ENSCO;
SMART, including SMWIA and UTU;
TCIU/BRC; and
Transport Canada.

The ETF developed the Technical Criteria and Procedures Report. After it developed the Report, the task of the ETF was expanded to: (1) develop formal recommendations to the full RSAC to adopt the alternative crashworthiness criteria into FRA's regulations and (2) establish minimum safety requirements for the next generation of high-speed trainsets able to operate at speeds of up to 220 mph, classified as Tier III passenger equipment. While much of the ETF's initial work was leveraged to develop the proposed crashworthiness elements of this NPRM, the ETF found it necessary to create smaller task groups to develop other and related technical criteria and recommendations for the safe operation of high-speed trainsets: the Brake Systems Task Group (BTG);

Engineering, Structures, and Integrity (ESI) Task Group; Tier III Cab Glazing Task Group; and Vehicle-Track Interaction (VTI) Task Group. In addition, as explained below, the ETF established an additional task group to examine various requirements contained in 49 CFR part 229 and determine their applicability to Tier III trainsets. FRA intends to use the work of that part 229/Inspection, Testing and Maintenance Task Group—the “229/ITM Task Group”— in a future rulemaking so it is not specifically included in this proposal. With the exception of the Tier III Cab Glazing Task Group, the task groups consisted primarily of ETF members and participants.

The BTG was established in June 2011, in response to a request from industry representatives, for the purpose of developing technology-neutral requirements that would be applicable to the brake systems and technology commonly found on today’s high-speed trainsets worldwide. The BTG met as a group from November 2011 to December 2012. Group members reviewed and compared current U.S. brake system requirements and international brake system requirements, including current U.S. inspection and maintenance requirements; analyzed common brake system features to determine basic brake system parameters; and identified performance-based requirements to permit operators to develop equipment-specific maintenance, inspection and service plans. The BTG divided itself into two sub-groups, each representing the Asian and European perspectives on high-speed trainset design, respectively. Each sub-group worked independently to evaluate Asian and European best practices against current U.S. brake system regulations. As needed, each sub-group developed proposed amendments to current U.S. regulations to incorporate international best practices. The BTG presented its recommendations to the ETF on December 6, 2012, jointly to the PSWG and the ETF on May 30, 2013, and then to the full RSAC on June 14, 2013.

The ESI Task Group was established in June 2012 to provide additional technical and engineering guidance to standardize (to the extent possible and practical) how compliance with the provisions of the proposed requirements should be demonstrated. Since many of the proposed requirements in the NPRM rely heavily on computer analysis and simulations in order to demonstrate compliance, the ETF sought to separate the criteria (the performance requirements) from the methodology of demonstrating compliance with those requirements. The original Report included both technical criteria and procedures for actually demonstrating that the proposed alternatives to current requirements could provide an equivalent level of safety. The Task Force agreed that the procedures were not appropriate to include in the regulatory language, and recommended that the rule text contain only the criteria and the conditions for which such criteria apply. Instead, the detailed procedures for demonstrating compliance with the criteria would be more appropriate as an accompanying guidance document or industry standard. Therefore, the ESI Task Group was formed to help create companion documentation that would contain the procedures, and agreed best practice, recommended to be used to demonstrate compliance with the regulatory requirements. The ESI Task Group met from July 2012 to March 2013, and developed a draft guidance document of suggested

methods for demonstrating compliance with proposed Tier I alternative and Tier III crashworthiness requirements. This group plans to reconvene to finalize this document, and to develop a more general compliance document to accompany ETF rulemakings.

The Tier III Cab Glazing Task Group was created to resolve particular issues related to proposed cab glazing requirements for Tier III trainsets. The group consists of ETF members, and glazing experts and manufacturers from around the world. The group met four times between March and May 2013. It presented its recommendations for this NPRM to the PSWG on May 30, 2013, which FRA has adopted.

The VTI Task Group evaluated whether high-speed trainsets operate safely under conditions the Federal Track Safety Standards in 49 CFR part 213 establish. The VTI Task Group focused on the conditions presented at lower-speed classes of track, and whether certain conditions presented a challenge to the highly-specialized suspension systems of high-speed trainsets. This group provided intermediate findings to the ETF. However, the ETF decided that the information was not sufficiently conclusive to warrant continued exploration of the topic at the time.

As noted above, the ETF established an additional task group to examine various requirements contained in 49 CFR part 229 and to determine their applicability to Tier III trainsets. This task group more narrowly addresses concerns and discussions originating from the BTG. This ongoing 229/ITM Task Group is developing appropriate language to apply pertinent elements from 49 CFR part 229 and ITM provisions from 49 CFR part 238 to both Tier I and Tier II passenger equipment, and recommending equivalent requirements for Tier III trainsets. The work of the 229/ITM Task Group is continuing, and the ETF intends to incorporate the group's work into future rulemaking recommendations.

Overall, in addition to the work of the various task groups, the full ETF met 18 times over four years in support of the development of this NPRM. Minutes of each of the meetings, listed below, are part of the docket in this proceeding and are available for public inspection. These meetings were held on the following dates and in the following locations:

September 23-24, 2009, Cambridge, Massachusetts;
November 3-4, 2009, Philadelphia, Pennsylvania;
January 7-8, 2010, Atlanta, Georgia;
March 9-10, 2010, Orlando, FL;
October 20-21, 2010, Cambridge, Massachusetts;
January 11-12, 2011, Orlando, Florida;
February 14-15, 2011, Washington, DC;
March 30-31, 2011, Washington, DC;
June 16-17, 2011, Boston, Massachusetts;

October 6-7, 2011, New Orleans, Louisiana;
June 27-28, 2012, Manhattan Beach, California;
September 25-26, 2012, Washington, DC;
December 6, 2012, Arlington, Virginia;
February 13-14, 2013, Washington, DC;
May 30, 2013, Washington, DC; and
September 11-12, 2013, Washington, DC.

To assist the ETF, FRA often drafted proposed regulatory text for discussion purposes at the various task groups' meetings and task group participants would then offer suggested changes and additions to the proposed draft text. In addition, staff from the Volpe Center attended all of the ETF's meetings and made significant contributions to the technical discussions and development of the ETF's work product, especially the Technical Criteria and Procedures Report.

Through the many meetings and discussions, proposed regulatory language was developed and then presented, accepted, and approved at a joint meeting of the ETF and the Working Group on May 30, 2013. The consensus language was then presented before the full RSAC on June 14, 2013, where it was approved by consensus vote, including the recommendations from the Tier III Cab Glazing Task Group (which were in a separate document). The Working Group's recommendations were thereby adopted by the full RSAC as its recommendations to FRA. The ETF did hold an additional meeting on September 11-12, 2013, which concerned these recommendations; the ETF addressed comments from ETF members to add clarification to, but not alter, the agreed-upon recommendations.

This NPRM is a product of the RSAC's consensus recommendations, and FRA believes that this NPRM is consistent with RSAC's recommendations. Please note that the RSAC did not expressly consider FRA's proposal concerning the removal of the requirement for a rule of particular applicability to conduct operations at speeds above 150 mph, as specified in subpart I of part 236 of this chapter. FRA, nonetheless, believes that this proposal concerning the removal of this language from part 236 is consistent with the recommended approach to Tier III operations.

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.

The information contained on various report forms is a matter of public record and,

therefore, confidentially is not promised to any respondent.

11. Justification for any questions of a sensitive nature.

There are no questions of a sensitive or private nature involving this regulation.

12. Estimate of burden hours for information collected.

Note: Based on the latest agency available data, there are 28 commuter and two (2) intercity railroads now operating that will be affected by this proposed rule. Thus, a total of 30 railroads comprise the respondent universe.

§ 216.14 Special notice for repairs--passenger equipment.

When an FRA Motive Power and Equipment Inspector or a State Equipment Inspector determines that railroad passenger equipment is not in conformity with one or more of the requirements of the FRA Passenger Equipment Safety Standards set forth in part 238 of this chapter and that it is unsafe for further service, he or she will issue a written Special Notice to the railroad that the equipment is not in serviceable condition. The Special Notice describes the defect or defects that cause the equipment to be in unserviceable condition. After the receipt of the Special Notice, the railroad must remove the equipment from service until it is restored to serviceable condition. The equipment may not be deemed to be in serviceable condition until it complies with all applicable requirements of part 238 of this chapter. The railroad must notify in writing the FRA Regional Administrator for the FRA region in which the Special Notice was issued when the equipment is returned to service, specifying the repairs completed.

The burden for this requirement is included under OMB No. 2130-0004. Consequently, there is no additional burden associated with this requirement.

§ 229.31 Main reservoir tests

(a)(i) Before it is placed in service, each main reservoir other than an aluminum reservoir shall be subjected to a pneumatic or hydrostatic pressure of at least 25 percent more than the maximum working pressure fixed by the chief mechanical officer. The test date, place, and pressure shall be recorded on Form FRA F 6180.49A, block eighteen.

FRA estimates that zero (0) forms will be filled out under the above requirement. Consequently, there is no burden associated with this provision.

(ii) Except as provided in paragraph (c) of this section, at intervals that do not exceed 736 calendar days, each main reservoir other than an aluminum reservoir shall be subjected to a hydrostatic pressure of at least 25 percent more than the maximum working pressure

fixed by the chief mechanical officer. The test date, place, and pressure shall be recorded on Form FRA F 6180.49A, and the person performing the test and that person's supervisor shall sign the form.

FRA estimates that zero (0) forms will be filled out under the above requirement. Consequently, there is no burden associated with this provision.

(b) Except as provided in paragraph (c) of this section, each main reservoir other than an aluminum reservoir shall be hammer tested over its entire surface while the reservoir is empty at intervals that do not exceed 736 calendar days. The test date, place, and pressure shall be recorded on Form FRA F 6180.49A, and the person performing the test and that person's supervisor shall sign the form.

FRA estimates that zero (0) forms will be filled out under the above requirement. Consequently, there is no burden associated with this provision.

(c) Each aluminum main reservoir before being placed in use and at intervals that do not exceed 736 days thereafter shall be: (1) Cleaned and given a thorough visual inspection of all internal and external surfaces for evidence of defects or deterioration; and (2) Subjected to a hydrostatic pressure fixed by the chief mechanical officer, but not less than 250 p.s.i. The test date, place, and pressure shall be recorded on Form FRA F 6180.49A, and the person conducting the test and that person's supervisor shall sign the form.

FRA estimates that zero (0) forms will be filled out under the above requirement. Consequently, there is no burden associated with this provision.

§ 229.47 Emergency Brake Valve

(a) Except for locomotives with cabs designed for occupancy by only one person, each road locomotive shall be equipped with a brake pipe valve that is accessible to a member of the crew, other than the engineer, from that crew member's position in the cab. On car body type locomotives, a brake valve shall be attached to the wall adjacent to each exit end door. The words "Emergency Brake Valve" must be legibly stenciled or marked near each brake pipe valve or must be shown on an adjacent badge plate.

FRA estimates that approximately 30 locomotives will be equipped with a brake pipe valve that will need to be marked as stipulated under the above requirement. It is estimated that it will take approximately one (1) minute to legibly stencil/mark each brake pipe valve or show these words on an adjacent badge plate. Total annual burden for requirement is .one hour.

Respondent Universe:

30 Railroads

Burden time per response:	1 minute
Frequency of Response:	On occasion
Annual number of Responses:	30 stencilings/markings/badge plates
Annual Burden:	1 hour

Calculation: 30 stencilings/markings/badge plates x 1 min. = 1 hour

(b) DMU, MU, and control cab locomotives operated in road service must be equipped with an emergency brake valve that is accessible to another crew member in the passenger compartment or vestibule. The words “Emergency Brake Valve” must be legibly stenciled or marked near each valve or must be shown on an adjacent badge plate.

FRA estimates that approximately five (5) locomotives will be equipped with a brake pipe valve that will need to be marked as stipulated under the above requirement. It is estimated that it will take approximately one (1) minute to stencil/mark each brake pipe valve or show these words on an adjacent badge plate. Total annual burden for requirement is .08 hour.

Respondent Universe:	30 Railroads
Burden time per response:	1 minute
Frequency of Response:	On occasion
Annual number of Responses:	5 stencilings/markings/badge plates
Annual Burden:	.08 hour

Calculation: 5 stencilings/markings/badge plates x 1 min. = .08 hour

Total annual burden for this entire requirement is one (1) hour (1 + .08).

§ 238.7 Waivers.

A person subject to a requirement of this part may petition the Administrator for a waiver of compliance with such requirement. The filing of such a petition does not affect the person’s responsibility for compliance with that requirement while the petition is being considered. Each petition for waiver under this section must be filed in the manner and contain the information required by part 211 of this chapter.

FRA estimates that approximately five (5) waivers will be received annually under this requirement. It is estimated that it will take approximately two (2) hours for a railroad to

prepare each such waiver and forward it to FRA. Total annual burden for this requirement is 10 hours.

Respondent Universe:	30 Railroads
Burden time per response:	2 hours
Frequency of Response:	On occasion
Annual number of Responses:	5 waivers
Annual Burden:	

10
hours

Calculation: 5 waivers x 2 hrs. = 10 hours

§ 238.11 Penalties

(a) Any person, as defined in § 238.5, who violates any requirement of this part or causes the violation of any such requirement is subject to a civil penalty of at least \$550 and not more than \$11,000 per violation, except that: Penalties may be assessed against individuals only for willful violations, and, where a grossly negligent violation or a pattern of repeated violations has created an imminent hazard of death or injury to persons, or has caused death or injury, a penalty not to exceed \$22,000 per violation may be assessed. Each day a violation continues shall constitute a separate offense.

(b) Any person who knowingly and willfully falsifies a record or report required by this part may be subject to criminal penalties under 49 U.S.C. 21311.

FRA estimates that zero (0) records/reports would be knowingly and willfully falsified under this Part because of the serious criminal penalties attached to such an action. Consequently, there is burden associated with this requirement.

§ 238.15 Movement of passenger equipment with power brake defects.

Beginning on January 1, 2002, the following provisions of this section apply to railroads operating Tier I passenger equipment covered by this part. A railroad may request earlier application of these requirements upon written notification to FRA's Associate Administrator for Safety as provided in § 238.1(c) of this part.

Again, since the rule went into effect on January 1, 2002, there can be no more early applications. The above provision then does not apply. Consequently, there is no

burden associated with this requirement.

(b) Limitations on movement of passenger equipment containing a power brake defect at the time a Class I or IA brake test is performed. Except as provided in paragraph (c) of this section (which addresses brakes that become defective en route after a Class I or IA brake test was performed), a commuter or passenger train that has in its consist passenger equipment containing a power brake defect at the time that a Class I or IA brake test (or, for Tier II trains, the equivalent) is performed may only be moved, without civil penalty liability under this part, (1) if all of the following conditions are met: (i) The train is moved for purposes of repair, without passengers; (ii) The applicable operating restrictions in paragraphs (d) and (e) of this section are observed; and (iii) The passenger equipment is tagged, or information is recorded, as prescribed in paragraph (c)(2) of this section; or (2) If the train is moved for purposes of scrapping or sale of the passenger equipment that has the power brake defect and all of the following conditions are met: (i) The train is moved without passengers; (ii) The movement is at a speed of 15 mph or less; and (iii) The movement conforms with the railroad's air brake or power brake instructions.

FRA estimates approximately 500 cars in consists with defective equipment will have to be tagged/carded annually (or this information can be placed in an automated tracking system) before they can be moved to the nearest repair facility. It is estimated that it will take approximately three (3) minutes per tag/card to record the required information (or place the information in an automated tracking system). Since both sides of the defective equipment must be tagged, 1,000 tags/cards would be completed. Total annual burden for this requirement is 50 hours.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	1,000 tags/cards
Annual Burden:	50 hours

Calculation: 1,000 tags/cards x 3 min. = 50 hours

(C) Limitations on movement of passenger equipment in passenger service that becomes defective en route after Class I or IA brake test. Passenger equipment hauled or used in service in a commuter or passenger train that develops inoperative or ineffective power brakes or any other power brake defect while en route to another location after receiving a Class I or IA brake test (or, for Tier II trains, the equivalent) may be hauled or used by a railroad for repair, without civil penalty liability under this part, if the applicable operating restrictions set forth in paragraphs (d) and (e) of this section are complied with and all of the following requisites are satisfied:

(1) *En route defect.* At the time of the train's Class I or IA brake test, the passenger equipment in the train was properly equipped with power brakes that comply with this part. The power brakes on the passenger equipment become defective while it is en route to another location.

(2) *Record.* A tag or card is placed on both sides of the defective passenger equipment, or an automated tracking system is provided, with the following information about the defective passenger equipment:

- (i) The reporting mark and car or locomotive number;
- (ii) The name of the inspecting railroad;
- (iii) The name of the inspector;
- (iv) The inspection location and date;
- (v) The nature of each defect;
- (vi) The destination of the equipment where it will be repaired; and
- (vii) The signature, if possible, and job title of the person reporting the defective condition.

(3) *Automated tracking system.* Automated tracking systems used to meet the tagging requirements contained in paragraph (c)(2) of this section may be reviewed and monitored by FRA at any time to ensure the integrity of the system. FRA's Associate Administrator for Safety may prohibit or revoke a railroad's ability to utilize an automated tracking system in lieu of tagging if FRA finds that the automated tracking system is not properly secure, is inaccessible to FRA or a railroad's employees, or fails to adequately track or monitor the movement of defective equipment. Such a determination will be made in writing and will state the basis for such action.

FRA estimates approximately 144 cars developing power brake defects en route will have to be tagged/carded annually (or this information will be placed in an automated tracking system) before they can be moved to the nearest repair facility. It is estimated that it will take approximately six (6) minutes – 3 minutes per card – to record the required information on the tags or cards (or to enter it into an automated tracking system). Since both sides of the defective equipment receive the tags/cards, a total of 288 tags/cards would be completed. Total annual burden for this requirement is 14 hours.

Respondent Universe:

30 Railroads

Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	288 cards/tags
Annual Burden:	14 hours

Calculation: 288 tags/cards x 3 min. = 14 hours

- (4) *Conditional requirement.* In addition, if an en route failure causes power brakes to be cut out or renders the brake inoperative on passenger equipment, the railroad must:
- (i) Determine the percentage of operative power brakes in the train based on the number of brakes known to be cut out or otherwise inoperative, using the formula specified in paragraph (d)(1) of this section;
 - (ii) Notify the person responsible for the movement of the train of the percent of operative brakes and movement restrictions on the train imposed by paragraph (d) of this section;
 - (iii) Notify the mechanical department of the failure; and
 - (iv) Confirm the percentage of operative brakes by a walking inspection at the next location where the railroad reasonably judges that it is safe to do so.

Regarding the conditional requirement, FRA estimates that this type of event will occur approximately 144 times annually. It is estimated that it will take approximately three (3) minutes to make the required notifications. Total annual burden for this requirement is seven (7) hours.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	144 notifications
Annual Burden:	

7 hours

Calculation:

144
notific

ations
x 3
min. =
7 hours

Total annual burden for this requirement is 71 hours (50 + 14 + 7).

§ 238.17 Movement of passenger equipment with other than power brake defects.

Beginning on January 1, 2002, the following provisions of this section apply to railroads operating Tier I passenger equipment covered by this part. A railroad may request earlier application of these requirements upon written notification to FRA's Associate Administrator for Safety as provided in § 238.1(c) of this part.

Again, since the rule went into effect on January 1, 2002, there can be no more early applications. The above provision then does not apply. Consequently, there is no burden associated with this requirement.

(b) Limitations on movement of passenger equipment containing defects found at time of calendar day inspection. Except as provided in §§ 238.303(e)(15) and (e)(17), 238.305(c) and (d), and 238.307(c)(1), passenger equipment containing a condition not in conformity with this part at the time of its calendar day mechanical inspection may be moved from that location for repair if all of the following conditions are satisfied: (1) If the condition involves a running gear defect, the defective equipment is not used in passenger service and is moved in a non-revenue train; (2) If the condition involves a non-running gear defect, the defective equipment may be used in passenger service in a revenue train provided that a qualified maintenance person determines that it is safe to do so, and if so, the car is locked out and empty, and all movement restrictions are observed except that the car may be occupied by a member of the train crew or a railroad employee to the extent necessary to safely operate the train; (3) The requirements of paragraphs (c)(3) and (c)(4) of this section are met; and the (4) The special requirements of paragraph (e) of this section, if applicable, are met.

(c) Limitations on movement of passenger equipment that develops defects en route. Except as provided in §§ 238.303(e)(15), 238.307(c)(1), and 238.503(f), passenger equipment that develops en route to its destination, after its calendar day inspection is performed and before its next calendar day mechanical inspection is performed, any condition not in compliance with this part, other than a power brake defect, may be moved only if the railroad complies with all of the following requirements or, if applicable, the special requirements in paragraph (e) of this section:

(1) Prior to movement of equipment with a potential running gear defect, a qualified maintenance person must determine if it is safe to move the equipment in passenger service and, if so, the maximum speed and other restrictions necessary for safely conducting the movement. If appropriate, these determinations may be made based on a description of the defective condition by a crewmember. If the determinations required by this paragraph are made by an off-site qualified maintenance person based on a description of the defective equipment by on-site personnel, then a qualified maintenance person must perform a physical inspection of the defective equipment, at the first location possible, to verify the description of the defect provided by the on-site personnel.

(2) Prior to movement of equipment with a non-running gear defect, a qualified person or a qualified maintenance person must determine if it is safe to move the equipment in passenger service and, if so, the maximum speed and other restrictions necessary for safely conducting the movement. If appropriate, these determinations may be made based upon a description of the defective condition provided by the on-site personnel.

(3) Prior to movement of any defective equipment, the qualified person or qualified maintenance person must notify the crewmember in charge of the movement of the defective equipment, who in turn must inform all other crew members of the presence of the defective condition(s) and the maximum speed and other restrictions determined under paragraph (c)(1) or (c)(2) of this section. The movement must be made in conformance with such restrictions.

(4) The railroad must maintain a record of all defects reported and their subsequent repair in the defect tracking system required in § 238.19. In addition, prior to movement of the defective equipment, a tag or card placed on both sides of the defective equipment, or an automated tracking system, must record the following information about the defective equipment:

- (i) The reporting mark and car or locomotive number;
- (ii) The name of the inspecting railroad;
- (iii) The name of the inspector, inspection location, and date;
- (iv) The nature of each defect;
- (v) Movement restrictions and safety restrictions, if any;
- (vi) The destination of the equipment where it will be repaired; and

- (vii) The signature, if possible, as well as the job title and location of the person making the determination required by this section.

(5) *Automated tracking system.* Automated tracking systems used to meet the tagging requirements contained in paragraph (c)(4) of this section may be reviewed and monitored by FRA at anytime to ensure the integrity of the system. FRA's Associate Administrator for Safety may prohibit or revoke a railroad's ability to utilize an automated tracking system in lieu of tagging if FRA finds that the automated tracking system is not properly secure; is inaccessible to FRA or a railroad's employees, or fails to adequately track or monitor the movement of defective equipment. Such a determination will be made in writing and will state the basis for such action.

FRA estimates approximately 100 cars developing non-power brake defects en route will have to be tagged/carded annually (or this information will be placed in an automated tracking system) before they can be moved to the nearest repair facility. It is estimated that it will take approximately six (6) minutes – 3 minutes per card – to record the required information on the tags or cards (or to enter it into an automated tracking system). Since tags/cards need to be placed on both sides of the defective equipment, 200 tags/cards would be completed. Total annual burden for the above requirements is 10 hours.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	200 tags/cards
Annual Burden:	10 hours

Calculation: 200 tags/cards x 3 min. = 10 hours

(d) Special requisites for movement of passenger equipment with safety appliance defects. Consistent with 49 U.S.C. 20303, passenger equipment with a safety appliance not in compliance with this part or with part 231 of this chapter, if applicable, may be moved – (1) If necessary to effect the repair of the safety appliance; (2) From the point where the safety appliance defect was first discovered by the railroad to the nearest available location on the railroad where the necessary repairs required to bring the passenger equipment into compliance can be made or, at the option of the receiving railroad, the equipment may be received and hauled for repair to a point on the receiving railroad's line that is no farther than the point on the delivering railroad's line where the repair of the defect could have been made; (3) If a tag placed on both sides of the passenger equipment or an automated tracking system contains the information required under paragraph (c)(4) of this section; and (4) After notification of the crewmember in

charge of the movement of the defective equipment, who in turn must inform all other crew members of the presence of the defective condition(s).

FRA estimates approximately 38 cars will have to be tagged annually (or this information will be placed in an automated tracking system) before they can be moved under the above requirement. It is estimated that it will take approximately six (6) minutes – 3 minutes per tag – to record the required information on the tag (or to enter it into an automated tracking system). Since tags need to be placed on both sides of the defective equipment, 76 tags would be completed. Total annual burden for this requirement is four (4) hours.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	76 tags
Annual Burden:	4 hours

Calculation: 76 tags x 3 min. = 4 hours

Furthermore, the tag will usually suffice to notify the crewmember-in-charge. For each of the 38 affected cars, the crewmember-in-charge will then notify all other crewmembers (usually by radio). FRA estimates that it will take approximately 30 seconds for this radio notification. Total annual burden for this requirement is 19 minutes.

Respondent Universe:	30 Railroads
Burden time per response:	30 seconds
Frequency of Response:	On occasion
Annual number of Responses:	38 radio notifications
Annual Burden:	.32 hour (19 minutes)

Calculation: 38 notifications x 30 sec. = .32 hour (19 minutes)

Total annual burden for this requirement is 14 hours (10 + 4 + .32).

§ 238.19 **Reporting and tracking defective passenger equipment.**

- (a) **General.** Beginning on January 1, 2002, each railroad must have in place a reporting and tracking system for passenger equipment with a defect not in conformance with this part. A railroad may request earlier application of these requirements upon written notification to FRA's Associate Administrator for Safety as provided in § 238.1 (c) of this part.

Since the rule went into effect on January 1, 2002, there can be no more early applications. The above provision then does not apply, and so there is no burden associated with the first part of this requirement.

The reporting and tracking system must record the following information:

- (1) The identification number of the defective equipment;
 - (2) The date the defect was discovered;
 - (3) The nature of the defect;
 - (4) The determination made by a qualified person or qualified maintenance person on whether the equipment is safe to run;
 - (5) The name of the qualified person or qualified maintenance person making such a determination;
 - (6) Any operating restrictions placed on the equipment; and
 - (7) Repairs made and the date that they were made.
- (b) Retention of records. At a minimum, each railroad must keep the records described in paragraph (a) of this section for one periodic maintenance interval for each specific type of equipment as described in the railroad's inspection, testing, and maintenance plan required by § 238.107. FRA strongly encourages railroads to keep these records for longer periods of time because they form the basis for future reliability-driven decisions concerning test and maintenance intervals that may be developed pursuant to § 238.307(b).
- (c) Availability of Records. Railroads must make defect reporting and tracking records available to FRA upon request.

Intercity and commuter railroads have had defect reporting and tracking systems which are tailored to meet the needs of their particular operations. FRA is not aware of any railroads that do not record and maintain all the information required. Since this information collection requirement was being performed by all railroads as part of their normal operations (a usual and customary practice/procedure), FRA has determined that it would not impose any additional paperwork burden.

- (d) List of power brake repair points. Railroads operating long-haul intercity and long-haul Tier II passenger equipment must designate locations, in writing, where

repairs to passenger equipment with a power brake defect will be made and must provide the list to FRA's Associate Administrator for Safety and make it available to FRA for inspection and copying upon request. Railroads operating these trains must designate a sufficient number of repair locations to ensure the safe and timely repair of passenger equipment. These designations must not be changed without at least 30 days advance written notice to FRA's Associate Administrator for Safety.

This information collection requirement only affects Amtrak, which has submitted the necessary list of power brake repair points. FRA does not anticipate any changes or updates to this list over the next few years. Consequently, there is no burden associated with this requirement.

§ 238.21 Special approval procedure.

(a) The following procedures govern consideration and action upon request for special approval of alternative standards under §§ 238.103, 238.223, 238.229, 238.309, 238.311, 238.405, or 238.427.

(b) Petitions for special approval of alternative standard.

Each petition for special approval of an alternative standard must contain--

- (1) The name, title, address, and telephone number of the primary person to be contacted with regard to review of the petition;
- (2) The alternative proposed, in detail, to be substituted for the particular requirements of this part;
- (3) Appropriate data or analysis, or both, establishing that the alternative will provide an equivalent level of safety; and
- (4) A statement affirming that the railroad has served a copy of the petition on designated representatives of its employees, together with a list of the names and addresses of the persons served.

FRA estimates that it will receive approximately one (1) petition annually under this information collection requirement. It is estimated that it will take approximately 16 hours to prepare the petition and forward copies of it to FRA and to the designated

representatives of railroad employees. Total annual burden for this requirement is 16 hours.

Respondent Universe:	30 Railroads
Burden time per response:	16 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 petition
Annual Burden:	16 hours

Calculation: 1 petition x 16 hrs. = 16 hours

The following procedures govern consideration and action upon requests for special approval of alternative compliance for §§ 238.201, 238.229, or 238.230:

(c) Petitions for special approval of alternative compliance. Each petition for special approval of alternative compliance must contain—

- (1) The name, title, address, and telephone number of the primary person to be contacted with regard to the petition;
- (2) The elements prescribed in §§ 238.201(b)(1), 238.229(j)(2), and 238.203(d); and
- (3) A statement affirming that the railroad has served a copy of the petition on designated representatives of its employees, together with a list of the names and addresses of the persons served.

As specified under § 238.201(b), passenger equipment of special design shall be deemed to comply with this subpart (other than § 238.203) for the service environment in which the petitioner proposes to operate the equipment if the FRA Associate Administrator for Safety determines under the paragraph below (paragraph (c) of this section) that the equipment provides an equivalent level of safety in such environment with respect to the protection of its occupants from serious injury in the case of a derailment or collision. In making a determination under paragraph (c), the Associate Administrator shall consider, as a whole, all of those elements of casualty prevention or mitigation relevant to the integrity of the equipment that are addressed by the requirements of this subpart.

The Associate Administrator may only make a finding of equivalent safety and compliance with this subpart (other than § 238.203) based upon submission of data and analysis sufficient to support that determination. Each petition must also include:

- (i) The information required by § 238.21(c).
- (ii) Information, including detailed drawings and materials specifications, sufficient to describe the actual construction of the equipment of special design;

- (iii) Engineering analysis sufficient to describe the likely performance of the equipment in derailment and collision scenarios pertinent to the safety requirements for which compliance is required and for which the equipment does not conform to the specific requirements of this subpart; and
- (iv) A quantitative risk assessment, incorporating the design information and engineering analysis described in this paragraph, demonstrating that the equipment, as utilized in the service environment for which recognition is sought, presents no greater hazard of serious personal injury than equipment that conforms to the specific requirements of this subpart. Any petition made under this paragraph is subject to the procedures set forth in § 238.21, and will be disposed of in accordance with § 238.21(g).

FRA estimates that it will receive approximately one (1) petition annually for alternative compliance under this information collection requirement. It is estimated that it will take approximately 120 hours to prepare the petition (including the required engineering analysis and quantitative risk assessment) and forward copies of it to FRA and to the designated representatives of railroad employees. Total annual burden for this requirement is 120 hours.

Respondent Universe:	30 Railroads
Burden time per response:	120 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 petition
Annual Burden:	120 hours

Calculation: 1
 petition x 120
 hrs. =
 120
 hours

The following procedures govern consideration and action upon request for special approval of pre-revenue service acceptance testing plan for § 238.111:

- (d) Petitions for special approval of pre-revenue service acceptance testing plan.

Each petition for special approval of a pre-revenue service acceptance testing plan must contain –

- (1) The name, title, address, and telephone number of the primary person to be contacted with regard to review of the petition; and
- (2) Each petition for special approval of the pre-revenue service acceptance testing plan shall be submitted to the Associate Administrator, Federal Railroad Administration, 1200 New Jersey Ave., SE, Mail Stop 25, Washington, D.C. 20590.

FRA estimates that it will receive approximately 10 petitions annually under this information collection requirement. It is estimated that it will take approximately 40 hours to prepare the petition and forward copies to FRA. Total annual burden for this requirement is 400 hours.

Respondent Universe:	30 Railroads
Burden time per response:	40 hours
Frequency of Response:	

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Annual number of Responses:	10 petitions
Annual Burden:	400 hours

Calculation: 10 petitions x 40 hrs. = 400 hours

- (e) Comment. Not later than 30 days from the date of publication of a notice in the Federal Register concerning a petition under paragraphs (b) and (c) of this section, any person may comment on the petition.
 - (1) Each comment must set forth specifically the basis upon which it is made, and contain a concise statement of the interest of the commenter in the proceeding. Each comment must be submitted to the DOT Central Docket Management System, 1200 New Jersey Ave., S.E., Washington, D.C. 20590, and must contain the assigned docket number for that proceeding. The form of such submission may be in written or electronic form consistent with the standards and requirements established by the Central Docket Management System and posted on its web site at <http://dms.dot.gov>

FRA estimates that it will receive approximately four (4) comments annually on

petitions filed with FRA. It is estimated that it will take approximately one (1) hour to prepare the comments and forward copies to the DOT central docket facility. Total annual burden for this requirement is four (4) hours.

Respondent Universe:	Public/Railroad
	Industry
Burden time per response:	1 hour
Frequency of Response:	On occasion
Annual number of Responses:	4 comments
Annual Burden:	4 hours

Calculation: 4 comments x 1 hr. = 4 hours

Total annual burden for these seven requirements is 540 hours (16 + 120 + 400 + 4).

Subpart B – Safety Planning and General Requirements

§ 238.103 Fire Safety

(a) **Materials.** (1) Materials used in constructing a passenger car or a cab of a locomotive ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, must meet the test performance criteria for flammability and smoke emission characteristics as specified in Appendix B to this part, or alternative standards issued or recognized by an expert consensus organization after special approval of FRA under § 238.21. (2) On or after November 8, 1999, materials introduced in a passenger car or a locomotive cab, as part of any kind of rebuild, refurbishment, or overhaul of the car or cab, must meet the test performance criteria for flammability and smoke emission characteristics as specified in Appendix B to this part, or alternative standards issued or recognized by an expert consensus organization after special approval of FRA under § 238.21. (3) For purposes of complying with the requirements of this paragraph, a railroad may rely on the results of tests of material conducted in accordance with the standards and performance of criteria for flammability and smoke emission characteristics as specified in Appendix B to this part in effect on July 12, 1999, if prior to June 25, 2002, the material is (i) installed in a passenger car or locomotive; (ii) held in inventory by the railroad; or (iii) ordered by the railroad.

The burden for special approval of alternative standards is included under section 238.21. The burden for the requirements of Appendix B is included in that section.

(b) **Certification.** A railroad must require certification that a representative sample of combustible materials to be (i) used in constructing a passenger car or a locomotive cab, or (ii) introduced in a passenger car or a locomotive cab, as part of any kind of rebuild,

refurbishment, or overhaul of the car or cab, has been tested by a recognized independent testing laboratory and that the results show the representative samples comply with the requirement of paragraph (a) of this section at the time they were tested.

(c) Procuring new passenger equipment. (1) In procuring new passenger cars and locomotives, each railroad must ensure that fire safety considerations and features in the design of this equipment reduce the risk of personal injury caused by fire to an acceptable level in its operating environment using a formal safety methodology such as MIL-STD-882. To this end, each railroad must complete a written fire safety analysis of the passenger equipment being procured. In conducting the analysis, the railroad must:

- (i) Identify, analyze, and prioritize the fire hazards inherent in the design of the equipment.
- (ii) Take effective steps to design the equipment and select materials which help provide sufficient fire resistance to reasonably ensure adequate time to detect a fire and safely evacuate the passengers and crewmembers, if a fire can not be prevented. Factors to consider include potential ignition sources; the type, quantity, and location of materials; and availability of rapid and safe egress to the exterior of the equipment under conditions secure from fire, smoke, and other hazards.
- (iii) Reasonably ensure that a ventilation system in the equipment does not contribute to the lethality of a fire.
- (iv) Identify in writing any train component that is a risk of initiating fire and which requires overheat protection. An overheat detector must be installed in any component when the analysis determines that an overheat detector is necessary.
- (v) Identify in writing any unoccupied train compartment that contains equipment or material that poses a fire hazard, and analyze the benefit provided by including a fire or smoke detection system in each compartment so identified. A fire or smoke detector must be installed in any unoccupied compartments when the analysis determines that such equipment is necessary to ensure sufficient time for the safe evacuation of passengers and crew members from the train. For purposes of this section, an unoccupied train compartment means any part of the equipment structure that is not normally occupied during the operation of the train, including a closet, baggage compartment, food pantry, etc.
- (vi) Determine whether any occupied or unoccupied space requires a portable fire extinguisher, and, if so, the proper type and size of the fire extinguisher for each location. As required by § 239.101 of this chapter, each passenger car is required to have a minimum of one portable fire extinguisher. If the analysis performed indicates that one or more additional portable fire extinguishers are needed, such must be installed.

- (vii) On a case-by-case basis, analyze the benefit provided by including a fixed, automatic fire-suppression system in any unoccupied train compartment that contains equipment or material that poses a fire hazard, and determine the proper type and size of the automatic fire-suppression system for each such location. A fixed, automatic fire suppression system must be installed in any unoccupied compartment when the analysis determines that such equipment is practical and necessary to ensure sufficient time for the safe evacuation of passenger and crewmembers from the train.
- (viii) Explain how safety issues are resolved in the design of the equipment and selection materials to reduce the risk of each fire hazard.
- (ix) Describe the analysis and testing necessary to (A) demonstrate that the fire protection approach taken in the design of the equipment and selection of materials meets the fire protection requirements of this part.

The above requirement has already been fulfilled by existing railroads. There is no additional or further burden for them. However, new railroads must also fulfill this requirement. FRA estimates that approximately two railroads will commence operations each year and will have the necessary written fire safety analysis completed for them. It is estimated that it will take approximately 150 hours to complete the required written fire safety analysis. Total annual burden for this requirement is 300 hours.

Respondent Universe:	2 New Railroads
Burden time per response:	150 hours
Frequency of Response:	One-time
Annual number of Responses:	2 written fire safety analyses
Annual Burden:	300 hours

Calculation: 2 written fire safety analyses x 150 hrs. = 300 hours

II. Fire Protection - Existing Equipment

FRA assumes that railroads will have contractors perform the fire protection analyses. Fire engineers (\$120 per labor hour) will perform most of the work.

Costs associated with performing a fire safety analysis of existing equipment will vary from railroad to railroad. Larger railroads that operate several different types of equipment, older equipment, and/or operate in environments other than at-grade would have to expend significantly more effort performing the analyses. Thus, FRA is grouping intercity and commuter railroads into three distinct groups (Group I - III) based on the amount of effort that would likely be required to comply with the fire safety analysis

requirements. *Group I* is comprised of eight (8) relatively new and small commuter railroads that have no more than 4 models of passenger cars each and no equipment built before 1982. *Group II* is comprised of five (5) commuter railroads, all with no more than 13 models of cars operating on one type of source of power -- electric or diesel fuel. *Group III* includes eight (8) commuter railroads that have between 25 - 60 variations of models of cars -- many built as early as the 1950's -- and Amtrak which covers many distinct operating environments.

(d) The following analyses are also required:

- (1) Not later than January 10, 2001, each passenger railroad must complete a preliminary fire safety analysis for each category of existing passenger cars and locomotives and rail service.

This effort would constitute an overview of the fleet and service environments (tunnels, bridges, other elevated structures, at grade, and open cuts) together with known elements of risk. Category of rail equipment and current rail service would be determined by the railroad based on relevant fire safety risks, including:

- (i) available ignition sources (e.g. vandalism, electrical fire -- catenary, third rail, fuel tank rupture, smoking, etc.),
- (ii) presence or absence of heat/smoke detection/suppression systems (e.g. overheat detectors, sprinklers, smoke detectors, etc.),
- (iii) known variations from standards for materials, and
- (iv) availability of rapid and safe egress to the exterior of the vehicle under conditions secure from fire, smoke, and other hazards.

The mandated analyses here are one-time, and have already been fulfilled. Consequently, there is no burden associated with this requirement.

- (2) No later than July 10, 2001, each such railroad must complete a final fire safety analysis for any category of existing passenger cars and locomotives and rail service evaluated during the preliminary fire safety analysis as likely presenting an unacceptable risk of personal injury. In conducting the analysis, the railroad must consider the extent to which materials comply with the test performance criteria for flammability and smoke emission characteristics as specified in Appendix B to this part or alternative standards approved by FRA under this part.

For any category of equipment and service identified as possibly presenting unacceptable

risk, a full analysis and any necessary remedial action(s) would be required within the following year.

The mandated analysis here is one-time, and has already been fulfilled. Consequently, there is no burden associated with this requirement.

- (3) Not later than July 10, 2003, each railroad must complete a final fire safety analysis for all categories of existing passenger cars and locomotives and rail service. In completing this analysis, the railroad must, *as far as practicable*, determine the extent to which remaining materials comply with the test performance criteria for flammability and smoke emission characteristics as specified in Appendix B to this part or alternative standards approved by FRA under this part.

FRA estimates that approximately one (1) fire safety analysis will be completed under the above requirement. It is estimated that it will take approximately 40 hours to complete the required fire safety analysis. Total annual burden for this requirement is 40 hours.

Respondent Universe:	30 Railroads
Burden time per response:	40 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 analysis
Annual Burden:	40 hours

Calculation: 1 analysis x 40 hrs. = 40 hours

- (4) Where possible prior to transferring existing passenger cars and locomotives to a new category of rail service, but in no case more than 90 days following such a transfer, the passenger railroad must complete a new fire safety analysis taking into consideration the change in railroad operations and must effect prompt action to reduce any identified risk to an acceptable level.

Railroads would have to complete a new fire safety analysis taking into consideration the change in railroad operations when equipment is transferred to new service. Railroads would also be required to take prompt action to reduce any identified risk to an acceptable level. In an effort to keep spare car ratios to a minimum, equipment is usually built and maintained to be fully transferable among the different routes of a railroad.

Thus, equipment transfers to new service will occur when equipment is transferred to another railroad. FRA estimates that approximately three (3) fire safety analyses will be completed under the above requirement and that it will take approximately 20 *engineering labor hours* to perform the necessary analysis. Total annual burden for this

requirement then is 60 hours.

Respondent Universe:	30 railroads/AAR
Burden time per response:	20 hours
Frequency of Response:	On occasion
Annual number of Responses:	3 analyses
Annual Burden:	60 hours

Calculation: 3
analyses x 20
hrs. =
60
hours

(e) Each railroad must develop and adopt written procedures for the inspection, testing, and maintenance of all fire safety systems and fire safety equipment on the passenger equipment it operates. The railroad must comply with those procedures that it designates as mandatory for the safety of the equipment and its occupants.

The mandated written procedures here are one-time, and have already been fulfilled. Consequently, there is no burden associated with this requirement.

Total annual burden for these requirements is 400 hours (300 + 40 + 60).

§ 238.105 Train hardware and software safety.

The requirements of this section apply to hardware and software used to control or monitor safety functions in passenger equipment ordered on or after September 8, 2000, and such components implemented or materially modified in new or existing passenger equipment on or after September 9, 2002.

(a) The railroad must develop and maintain a written hardware and software safety program to guide the design, development, testing, integration, and verification of computer software and hardware that controls or monitors equipment safety functions.

(b) The hardware and software safety program must be based on a formal safety methodology that includes a Failures Modes, Effects, Criticality Analysis (FMECA); verification and validation testing for all hardware and software components and their interfaces; and comprehensive hardware and software integration testing to ensure that the software functions as intended.

(c) The hardware and software safety program must include a description of how the following will be accomplished, achieved, carried out, or implemented to ensure safety and reliability:

- (1) The hardware and software design process;
- (2) The hardware and software design documentation;
- (3) The hardware and software hazard analysis;
- (4) Hardware and software safety reviews;
- (5) Hardware and software hazard monitoring and tracking;
- (6) Hardware and software integration safety testing; and
- (7) Demonstration of overall hardware and software system safety as part of the pre-revenue service testing of the equipment.

Information available to FRA indicates that railroads or their suppliers currently have hardware and software programs which meet the required information collection requirements. Therefore, these information collection requirements impose no additional paperwork burden on the railroad industry.

§ 238.107 Inspection, testing, and maintenance plan.

- (a) Beginning January 1, 2002, the following provisions of this section apply to railroads operating Tier I passenger equipment covered by this part. A railroad may request earlier application of these requirements upon written notification to FRA's Associate Administrator for Safety as provided in § 238.1(c) of this part.

Since this rule went into effect January 1, 2002, there can be no more early applications. The above provision then does not apply. Consequently, there is no burden associated with this requirement.

- (b) Each railroad must develop, and provide to FRA, upon request, a detailed inspection, testing, and maintenance plan consistent with the requirements of this part. This plan must include a detailed description of the following:
 - (1) Inspection procedures, intervals, and criteria;
 - (2) Test procedures and intervals;

- (3) Scheduled preventive maintenance intervals;
- (4) Maintenance procedures; and
- (5) Special testing equipment or measuring devices required to perform inspections and tests.

All passenger railroads are already in compliance with this information collection requirement. This plan is a usual and customary procedure as part of each railroad's operations. Thus, there is no new paperwork burden associated with this provision.

- (c) The inspection, testing, and maintenance plan required by this section must be reviewed by the railroad annually.

FRA estimates that approximately 30 reviews will take place under the above requirement. It is estimated that it will take approximately 60 hours for each railroad to review its inspection, testing, and maintenance plan. Total annual burden for this requirement is 1,800 hours.

Respondent Universe:	30 railroads
Burden time per response:	60 hours
Frequency of Response:	Annually

Annual number of Responses:	30 reviews
Annual Burden:	1,800 hours

Calculation: 30 reviews x 60 hrs. = 1,800 hours

Total annual burden for this entire requirement is 720 hours.

§ 238.109 Training, qualification, and designation program.

Beginning on January 1, 2002, each railroad must have adopted a training, qualification,

and designation program for employees and contractors that perform any of the inspections, tests, or maintenance required by this part, and must have trained such employees and contractors in accordance with the program. A railroad may request earlier application of these requirements upon written notification to FRA's Associate Administrator for Safety as provided in § 238.1(c).

This provision is no longer applicable, since the timeframe stated above has already expired. Consequently, there is no further or additional burden associated with it.

For purposes of this section, a "contractor" is defined as a person under contract with the railroad or an employee of a person under contract with the railroad to perform any of the tasks required by this part.

As part of this program, the railroad must, at a minimum:

- (1) Identify the tasks related to the inspection, testing, and maintenance required by this part that must be performed on each type of equipment that the railroad operates;
- (2) Develop written procedures for the performance of the tasks identified in paragraph (b)(1) of this section;
- (3) Identify the skills and knowledge necessary to perform each task identified in paragraph (b)(1) of this section;
- (4) Adopt a training curriculum that includes classroom and "hands-on" lessons designed to impart the skills and knowledge identified as necessary to perform each task identified in paragraph (b)(1) of this section. The training curriculum shall specifically address the Federal regulatory requirements contained in this part that are related to the performance of the tasks identified;
- (5) Require all employees and contractors to successfully complete the training course that covers the equipment and tasks for which they are responsible that are required by this part as well as the specific Federal regulatory requirements contained in this part related to equipment and tasks for which they are responsible;
- (6) Require all employees and contractors to pass a written or an oral examination covering the equipment and tasks for which they are responsible that are required by this part as well as the specific Federal regulatory requirements contained in this part related to the equipment and tasks for which they are responsible;
- (7) Require all employees and contractors to individually demonstrate "hands-on" capability to successfully perform the tasks required by this part that must be

performed as part of their duties on the type equipment to which they are assigned;

- (8) Require supervisors to complete the program that covers the employees whom they supervise, including refresher training;
- (9) Require supervisors to exercise oversight to ensure that all the identified tasks are performed in accordance with the railroad's written procedures;
- (10) Designate in writing that each employee and contractor has the knowledge and skills necessary to perform the safety-related tasks that are part of his or her job;
- (11) Require periodic refresher training, at an interval not to exceed three years, that includes classroom and "hands-on" training, as well as testing; except, employees and contractors who have completed their initial training under this part prior to January 1, 2002, shall not be required to complete their first periodic refresher training until four years after the completion of their initial training, and every three years thereafter;
- (12) Add new equipment to the qualification and designation program prior to its introduction to revenue service; and
- (13) Maintain records adequate to demonstrate that each employee and contractor performing safety-related tasks on passenger equipment is currently qualified to do so. These records must be adequate to distinguish the qualifications of the employee or contractor as a qualified person or as a qualified maintenance person.

Training employees to perform brake-related inspections, tests, or maintenance

Amtrak has about 2,600 air brake certified employees--including contractors and first line supervisors-- who inspect, test, and maintain intercity and commuter trains operated under contract by Amtrak. These employees receive initial air brake training and eight (8) hours of refresher training every two years. Information available to FRA indicates that there are approximately 5,900 non-Amtrak mechanical employees--including supervisors involved in commuter rail operations. These employees are involved in air brake inspection, testing, and maintenance. They receive training that would comply with this requirement. Information available to FRA also indicates that train crews who are involved in performing brake tests also currently receive training that would comply with the training requirements for brake inspection, testing, and maintenance.

Since current railroad training programs meet or exceed the required training for employees who perform brake-related inspections, tests, or maintenance, this information collection requirement would not impose any additional paperwork burden on the railroad industry.

Training employees to perform daily mechanical inspections

Railroad employees who perform daily mechanical inspections receive some form of formal or informal training either on the job or through an apprenticeship. However, they may not have received refresher training as often as the regulation requires. Further, training may be limited to new equipment. Amtrak employees did not receive refresher training on how to perform exterior or interior mechanical inspections. Commuter railroad employees who perform these inspections probably did not receive refresher training in these areas either. The crafts which perform interior inspections vary by railroad and sometimes by location within railroads. Mechanical personnel, train crews, and coach cleaners could all perform interior inspections. Many of these employees probably did not receive formal training on how to perform interior inspections.

FRA estimates that approximately 7,500 employees will receive training every three (3) years under this information collection requirement. In other words, approximately 2,500 employees will receive training annually. FRA assumes each training class will hold about 25 employees. Therefore, the annual number of instructors to perform the training is 100. It is estimated that it will take a total of four (4) hours (1 hour interior/3 hours exterior) to provide the required training. If this training were spread uniformly over three years, the average annual training class would amount to approximately 1.33 hours per employee. Total annual burden for this requirement then is 3,458 hours.

Respondent Universe:	7,500 employees/100 trainers
Burden time per response:	1.33 hours
Frequency of Response:	Annually
Annual number of Responses:	2,500 trained employees /100 instructors
Annual Burden:	3,458 hours

Calculation: 2,500 trained employees x 1.33 hrs. + 100 trainers x 1.33 hrs. = 3,458 hours

Development of Training Program

FRA developed a central training program in conjunction with the railroads. This is a one-time requirement which has already been fulfilled. Consequently, there is no burden associated with this information collection requirement.

Recordkeeping

Railroads are required to maintain records to demonstrate that each employee and contractor performing safety-related tasks on passenger equipment is currently qualified to do so. These records must be adequate to distinguish the qualifications of the

employee or contractor as a qualified person or as a qualified maintenance person.

FRA estimates approximately 7,500 employee records will have to be maintained under this requirement. Certification records are usually updated every three (3) years. Thus, approximately 1/3 of the total or 2,500 records will be updated/maintained annually. It is estimated that it will take approximately three (3) minutes to keep each record. Total annual burden for this information collection requirement is 125 hours.

Respondent Universe:	30 railroads
Burden time per response:	3 minutes
Frequency of Response:	Annually
First year number of Responses:	2,500 records
First year Burden:	125 hours

Calculation: 2,500 records x 3 min. = 125 hours

Total annual burden for this entire requirement is 3,583 hours (3,458 + 125).

§ 238.111 Pre-revenue service acceptance testing plan.

- A. Passenger equipment that has previously been used in revenue service in the United States. For passenger equipment that has previously been used in revenue service in the United States, each railroad must test the equipment on its system prior to placing such equipment in revenue service for the first time on its railroad to ensure the compatibility of the equipment with the railroad's operating system (including the track, and signal system). A description of such testing must be retained by the railroad and made available to FRA for inspection and copying upon request. For purposes of this paragraph, passenger equipment that has previously been used in revenue service in the United States means: (1) the actual equipment used in such service; (2) equipment manufactured identically to that actual equipment; and (3) equipment manufactured similarly to that actual equipment with no material differences in safety-critical components or systems.
- B. Passenger equipment that has not been used in revenue service in the United States. Before using passenger equipment for the first time on its system that has not been in revenue service in the United States, each railroad must:
- (1) Prepare a pre-revenue service acceptance testing plan for the equipment which contains the following elements:
 - (i) An identification of any waivers of FRA or other Federal safety regulations required for the testing or for revenue service operation of the equipment;

- (ii) A clear statement of the test objectives. One of the principal test objectives must be to demonstrate that the equipment meets the safety requirements specified in this part when operated in the environment in which it is to be used;
- (iii) A planned schedule for conducting the testing;
- (iv) A description of the railroad property or facilities to be used to conduct the testing;
- (v) A detailed description of how the testing is to be conducted, including a description of the criteria to be used to evaluate the equipment's performance;
- (vi) A description of how the test results are to be recorded;
- (vii) A description of any special instrumentation to be used during the tests;
- (viii) A description of the information or data to be obtained.
 - (ix) A description of how the information or data obtained is to be analyzed or used.
- (x) A description of any criteria to be used as safety limits during the testing;
- (xi) A description of the criteria to be used to measure or determine the success or failure of the tests. If acceptance is to be based on extrapolation of less than full-level testing results, the analysis to be done to justify the validity of the extrapolation must be described;
- (xii) Quality control procedures to ensure that the inspection, testing, and maintenance procedures are followed;
- (xiii) Criteria to be used for the revenue service operation of the equipment;
 - (xiv) A description of any testing of the equipment that has previously been performed.
- (2) Submit a copy of the plan to FRA at least 30 days before testing the equipment and include with that submission notification of the times and places of the pre-revenue service tests to permit FRA observation of such tests. For Tier II and Tier III passenger equipment, the railroad must

obtain FRA approval of the plan under the procedures specified in § 238.21. **(Revised requirement)**

- (3) Comply with the plan, including fully executing the tests required by the plan.
 - (4) Document in writing the results of the tests. For Tier II and Tier III passenger equipment, the railroad must report the results of the tests to the Associate Administrator at least 90 days prior to its intended operation of the equipment in revenue service. **(Revised requirement)**
 - (5) Correct any safety deficiencies identified in the design of the equipment or in the ITM procedures uncovered during the testing. If safety deficiencies cannot be corrected by design changes, the railroad must impose operational limitations on the revenue service operation of the equipment designed to ensure that the equipment can operate safely. For Tier II and Tier III passenger equipment, the railroad must comply with any operational limitations the Associate Administrator imposes on the revenue service operation of the equipment for cause stated following FRA review of the results of the test program. This section does not restrict a railroad from petitioning FRA for a waiver of a safety regulation under the procedures specified in part 211 of this chapter. **(Revised requirement)**
 - (6) Make the plan and documentation kept pursuant to that plan available for inspection and copying by FRA upon request.
 - (7) For Tier II and Tier III passenger equipment, obtain approval from the Associate Administrator before placing the equipment in revenue service. The Associate Administrator will grant such approval if the railroad demonstrates compliance with the applicable requirements of this part. **(Revised requirement)**
- C. If a railroad plans a major upgrade or introduction of new technology to Tier II or Tier III passenger equipment that has been used in revenue in the United States and that affects a safety system on such equipment, the railroad must follow the procedures in paragraph (b) of this section before placing the equipment in revenue service with the major upgrade or introduction of new technology. *[Note: FRA believes that there will be no major upgrades on Tier II or Tier III passenger equipment that has been used in revenue in the United States. Consequently, no additional pre-revenue service acceptance testing plans will need to be developed and no burden is involved with this requirement.]*

- A. See text above. According to industry sources, equipment transfers from one railroad to another occur an average of about once yearly. FRA assumes that railroad expenditures for documenting and planning such tests for equipment that has previously been used in revenue service will total approximately 10 % of the costs of such documentation and planning for tests for equipment that has not previously been used (*see B below*). In other words, an average cost per equipment transfer will total approximately 16 hours (8 engineering hours + 8 labor hours). Total burden then per plan is 16 hours.

FRA estimates that approximately five (5) pre-revenue plans will be developed under this requirement (for a total burden of 80 hours). These designs will probably be developed over a 2.5 year period. Assuming the designs are spread uniformly throughout that 2.5 year period, the total annual burden would average approximately 32 hours.

Respondent Universe:	9 equipment manufacturers
Burden time per response:	16 hours
Frequency of Response:	On occasion
Annual number of Responses:	2 plans (2.5 yr. average)
Annual Burden:	32 hours (2.5 yr. average)

<u>Calculation:</u>	2 plans x 16 hrs. = 32 hours
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- B. See text above. Information available to FRA indicates that the required information collection requirements currently represent industry standards in place. However, the requirements would place a stringent planning and documentation burden on railroads. FRA assumes that the railroads will assign the responsibility for compliance with this information collection requirement to equipment builders. It is estimated that each builder will spend an average of about 160 engineering labor hours (\$100/hour) per type of equipment. FRA also estimates that it would take approximately 32 labor hours to document the results of the tests performed pursuant to the plan and submit a copy of the plan to FRA for its review. Total burden per plan then is 192 hours. Again, FRA estimates that approximately five (5) pre-revenue plans will be developed under this requirement (for a total of 960 hours). Again, these designs will probably be developed within the next 2.5 years. Assuming that the design development is spread uniformly

throughout the next 2.5 years, the total annual average burden would be approximately 384 hours.

Respondent Universe:	9 equipment manufacturers
Burden time per response:	192 hours
Frequency of Response:	On occasion
Annual number of Responses:	2 plans (2.5 yr. average)
Annual Burden:	384 hours (2.5 yr. average)

Calculation: 2 plans x 192 hrs. = 384 hours

Subsequent equipment orders will likely not vary much, so the burden needed to meet these requirements would be minimal. It will take approximately 40 engineering labor hours to meet the requirements for subsequent equipment modifications. In addition, FRA estimates it will take a railroad approximately 20 hours to record the results of the tests and submit a copy of the plan to FRA for its review. Total burden per plan is 60 hours. For five (5) equipment designs, this would be a total burden of 300 hours. Assuming again that new designs are developed an average of every 2.5 years, the total average annual burden would be 120 hours.

Respondent Universe:	9 equipment manufacturers
Burden time per response:	60 hours
Frequency of Response:	On occasion
Annual number of Responses:	2 plans (2.5 yr. average)
Annual Burden:	120 hours (2.5 yr. average)

Calculation: 2 plans x 60 hrs. = 120 hours

Regarding railroad reports of the results of the test to the FRA Associate Administrator for Safety for Tier II and Tier III passenger equipment under (B)(4) above, FRA estimates that approximately one (1) report will be submitted to the agency under the above requirement. It is estimated that it will take approximately 60 hours to complete the necessary test and required report. Total annual burden for this requirement is 60 hours.

Respondent Universe:	30 railroads
Burden time per response:	60 hours
Frequency of Response:	

Annually

Annual number of Responses: 1 report
Annual Burden:

60
hours

Calculation: 1 report x 60 hrs. = 60 hours

Further, FRA estimates that there will be zero (0) requests for a waiver of operational limitations imposed by the FRA Associate Administrator for Safety on the revenue service operation for Tier II and Tier III passenger equipment. Consequently, there is no burden associated with this requirement.

Moreover, under (B)(7) above, FRA estimates that approximately one (1) plan/document will be submitted to FRA to obtain agency approval for Tier II or Tier III passenger equipment prior to placing the equipment in revenue service. It is estimated that it will take approximately 20 hours to complete each plan/document. Total annual burden for this requirement is XXX hours.

Respondent Universe: 30 railroads
Burden time per response: 20 hours
Frequency of Response:

Annually

Annual number of Responses: 1 plan/document
Annual Burden:

20
hours

Calculation: 1 plan/document x 20 hrs. = 20 hours

Total annual burden for this entire requirement is 616 hours (32 + 384 + 120 + 60 + 20).

§ 238.131 Exterior Side Door Safety Systems – New Passenger Cars and Locomotives Used in Passenger Service.

- (a) Safety systems for powered exterior side doors. All powered exterior side door safety systems in passenger cars, and connected door safety systems in locomotives used in passenger service, that ordered on or after **[INSERT DATE 120 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, or placed in service for the first time on or after **[INSERT DATE 790 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, shall:
- (1) Be built in accordance with APTA Standard PR-M-S-18-10, “Standard for Powered Exterior Side Door System Design for New Passenger Cars,” approved February 11, 2011. In particular, locomotives used in passenger service must be connected or interlocked with the door summary circuit to prohibit the train from developing tractive power if an exterior side door in a passenger car is not closed, unless the door is under the direct physical control of a crewmember for his or her exclusive use,;
- (2) Be designed based on a Failure Modes, Effects, Criticality Analysis (FMECA);

Thus, all new passenger cars with exterior side doors must be equipped with a door safety system are subject to a Failure Modes, Effects, Criticality Analysis (FMECA). FRA is requiring door safety systems in new passenger cars to be designed based on a FMECA to ensure that door system manufacturers consider the failure modes of exterior side doors. FRA believes that subjecting door safety systems to a FMECA will ensure that passenger equipment manufacturers consider how powered exterior side doors on new passenger equipment fail and make educated decisions on the safest approach to designing exterior side door safety systems.

FRA estimates that approximately three (3) FMECA’s will be performed and made available to FRA under the above requirement. It is estimated that it will take approximately four (4) hours to develop each functional test plan. Total annual burden for this requirement is 12 hours.

Respondent Universe:	6 Passenger Car builders
Burden time per response:	4 hours

Frequency of Response:	On occasion
Annual number of Responses:	3 FMECA's
Annual Burden:	12 hours

Calculation: 3 FMECA's x 4 hrs. = 12 hours

§ 238.133 Exterior Side Door Safety Systems – All Passenger Cars and Locomotives Used in Passenger Service.

(a) By-pass verification.

(1) Visual inspection. Except as provided in paragraphs (a)(2) and (a)(3) of this section, a member of the crew of each passenger train must verify by observation that all door by-pass devices that can affect the safe operation of the train are sealed in the normal (non-by-pass) position when taking control of the train.

(2) Functional test. Instead of a visual inspection of the door by-pass devices, the railroad may develop a plan to perform a functional test to determine that the door summary status indicator is functioning as intended. The functional test plan shall be made available for inspection by FRA.

FRA estimates that approximately 30 functional test plans will be developed and made available to FRA under the above requirement. It is estimated that it will take approximately four (4) hours to develop each functional test plan. Total annual burden for this requirement is 120 hours.

Respondent Universe:	30 railroads
Burden time per response:	4 hours
Frequency of Response:	One-time
Annual number of Responses:	30 functional test plans
Annual Burden:	120 hours

Calculation: 30 functional test plans x 4 hrs. = 120 hours

(3) Face-to-face relief. Crewmembers taking control of a train do not need to perform either a visual inspection or a functional test of the door by-pass devices in cases of face-to-face relief of another train crew and notification by that crew as to the functioning of the door by-pass devices.

The burden for this requirement is included under that of § 238.133(b) below. Consequently, there is no additional burden associated with this requirement.

(b) Unsealed door by-pass device. A crewmember must notify the railroad’s designated authority pursuant to the railroad’s defect reporting system if a door by-pass device that could affect the safe operation of the train is found unsealed during the train’s daily operation. If the train crew can test the door safety system and determine that the door summary status indicator is functioning as intended, the train can travel in service until the next forward repair point where a seal can be applied by a qualified maintenance person (QMP) or until its next calendar day inspection, whichever occurs first; if not, the train crew must follow the procedures outlined in paragraph (c) of this section.

Unsealed bypass devices occur infrequently. FRA estimates that approximately one percent of the 2,738 trains operating daily will have an unsealed safety device that will need to be resealed. Thus, FRA estimates that approximately 9,994 notifications (2,738 daily trains x .01 x 365 days p/yr.) will be made by crewmembers to the railroad’s designated authority under the above requirement. It is estimated that it will take approximately 30 seconds to complete each notification by crewmembers over the radio to the dispatcher or designated authority. Total annual burden for this requirement is 84 hours.

Respondent Universe:	30 railroads
Burden time per response:	30 seconds
Frequency of Response:	On occasion
Annual number of Responses:	9,994 notifications
Annual Burden:	84 hours

Calculation: 9,994 notifications x 30 sec. = 84 hours

(c) En-route failure. If it becomes necessary to activate a door by-pass device, the train may continue to its destination terminal, provided that the train crew conducts a safety briefing that includes a description of the location(s) where crewmembers will position themselves on the train in order to observe the boarding and alighting of passengers, notifies the railroad’s designated authorities that the train door’s by-pass device has been activated, and adheres to the operating rules required by § 238.135. After the train has reached its destination terminal, the train may continue in passenger service until its arrival at the next forward repair point or its next calendar day inspection, whichever occurs first, provided that prior to movement of equipment with a door by-pass device activated:

FRA estimates that approximately 300 safety briefings will be conducted by train crewmembers under the above requirement. It is estimated that it will take approximately two (2) minutes to conduct each safety briefing. Total annual burden for this requirement is 10 hours.

Respondent Universe:	30 railroads
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Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	300 safety briefings
Annual Burden:	10 hours

Calculation: 300 safety briefings x 2 min. = 10 hours

Additionally, FRA estimates that approximately 300 notifications will be made by train crewmembers to the designated authority under the above requirement. It is estimated that it will take approximately 30 seconds to complete each notification. Total annual burden for this requirement is three (3) hours.

Respondent Universe:	30 railroads
Burden time per response:	30 seconds
Frequency of Response:	On occasion
Annual number of Responses:	300 notifications
Annual Burden:	3 hours

Calculation: 300 notifications x 30 sec. = 3 hours

(1) An on-site qualified maintenance person (QMP) shall determine that repairs cannot be made at the time and it is safe to move the equipment in passenger service. If a QMP is not available on site, these determinations may be made based upon a description of the condition provided by an on-site qualified person (QP) to a QMP off-site.

FRA believes that the need to use the bypass switch en route is a rare occurrence. Thus, FRA estimates that approximately 300 en route bypass activations will occur each year and thus approximately 300 determinations/descriptions by on-site qualified persons (QPs) to a qualified maintenance person (QMP) off-site will be made by under the above requirement. It is estimated that it will take approximately five (5) minutes to complete each determination/description. Total annual burden for this requirement is 25 hours.

Respondent Universe:	30 railroads
Burden time per response:	5 minutes
Frequency of Response:	On occasion
Annual number of Responses:	300 determinations/descriptions
Annual Burden:	25 hours

Calculation: 300 determinations/descriptions x 5 min. = 25 hours

(2) And the QP or QMP shall notify the crewmember in charge of the movement of the train that the door by-pass device has been activated. The train crew must then hold a safety briefing that includes information such as the locations where each crewmember will position himself or herself on the train to ensure that passengers board and alight from the train safely.

FRA estimates that approximately 300 notifications will be made by the QP/QMP to the crewmember in charge of the movement of the train under the above requirement. It is estimated that it will take approximately 30 seconds to complete each notification. Total annual burden for this requirement is three (3) hours.

Respondent Universe:	30 railroads
Burden time per response:	30 seconds
Frequency of Response:	On occasion
Annual number of Responses:	300 notifications
Annual Burden:	3 hours

Calculation: 300 notifications x 30 sec. = 3 hours

FRA estimates that approximately 300 safety briefings will be conducted by train crewmembers and the QP/QMP under the above requirement. It is estimated that it will take approximately 10 minutes to conduct each safety briefing (five minutes for each of the two crew members – engineer and conductor). Total annual burden for this requirement is 50 hours.

Respondent Universe:	30 railroads
Burden time per response:	10 minutes
Frequency of Response:	On occasion
Annual number of Responses:	300 safety briefings
Annual Burden:	50 hours

Calculation: 300 safety briefings x 10 min. = 50 hours

(d) Records. The railroad shall maintain a record of each door by-pass activation and each unintended opening of a powered exterior side door, including any repair(s) made, in the defect tracking system as required by § 238.19.

FRA estimates that approximately 300 records of door by-pass activations and the subsequent repair in the defect tracking system will be made by under the above requirement. It is estimated that it will take approximately two (2) minutes to complete each record. Total annual burden for this requirement is 10 hours.

Respondent Universe:	30 railroads
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Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	300 records
Annual Burden:	10 hours

Calculation: 300 records x 2 min. = 10 hours

Further, unintended door openings are rare, but can be very serious occurrences that can result in grave injuries to passengers and crewmembers. Consequently, FRA estimates that approximately 20 unintended door openings will occur each year and thus approximately 20 records of unintended powered side door openings and the subsequent repair in the defect tracking system will be made under the above requirement. It is estimated that it will take approximately two (2) hours to complete each record of the unintended side door opening and make the subsequent repair. Total annual burden for this requirement is 40 hours.

Respondent Universe:	30 railroads
Burden time per response:	2 hours
Frequency of Response:	On occasion
Annual number of Responses:	20 records
Annual Burden:	40 hours

Calculation: 20 records x 2 hrs. = 40 hours

(g)(2) Calendar day inspection. As part of the equipment’s calendar day inspection, all exterior side door safety system override devices must be inactive and sealed in all passenger cars and all locomotives in the train consist, including cab cars and MU locomotives, if they are so equipped.

FRA estimates that there will be approximately 20 instances where there will be by pass device activations discovered found unsealed as part of the exterior calendar day inspection and thus approximately 20 records of these occurrences will be made each year under the above requirement. It is estimated that it will take approximately four (4) hours to do the necessary troubleshooting, reapply the seal to the door by pass devices, and complete each record. Total annual burden for this requirement is 80 hours.

Respondent Universe:	30 railroads
Burden time per response:	4 hours
Frequency of Response:	On occasion
Annual number of Responses:	20 records
Annual Burden:	80 hours

Calculation: 20 records x 4 hrs. = 80 hours

Total annual burden for this entire requirement is 425 hours (120 + 84 + 10 + 3 + 25 + 3 + 50 + 10 + 40 + 80).

§ 238.135 Operating Practices Relating to Exterior Side Door Safety Systems

(a)(1) At the beginning of his or her duty assignment prior to a train's departure, each crewmember must participate in a safety briefing that identifies each crewmember's responsibilities relating to the safe operation of the train's exterior side doors, including responsibilities for the safe operation of the exterior side doors when arriving at or departing a station.

Railroad train and engine employees participate in a daily job briefing before their duty assignment that discusses the tasks to be done that day and the personnel assigned to those tasks as part of their railroad's standard operating procedure. Thus, it is a usual and customary procedure and, as such, there is no burden then associated with the above requirement.

(c)(1) Except as provided in paragraph (b) of this section, passenger railroads must receive special approval from FRA's Associate Administrator for Railroad Safety/Chief Safety Officer to operate passenger trains with exterior side doors or trap doors, or both, open between stations.

(2) Any request for special approval must include:

(i) A written justification explaining the need to operate a passenger train with its exterior side doors or trap doors, or both, open between stations; and

(ii) A detailed hazard analysis, including a description of specific measures to mitigate any added risk.

(3) The request must be signed by the Chief Executive Officer (CEO), or equivalent, of the organization(s) making the request.

FRA estimates that approximately two (2) railroad requests for special consideration will be sent to FRA under the above requirement. The accompanying hazard analysis would usually start with a goal statement, identify primary elements and contributing attributes, and develop a hazard assessment. FRA estimates that it would take several sessions of four to five hours each to prepare the hazard analysis, plus time for the official's review and signature. Specifically, FRA estimates 25 hours to prepare the written request and hazard analysis, and one hour for the official's review and signature. Total annual burden for this requirement is 50 hours.

Respondent Universe:

30 railroads

Burden time per response:	25 hours
Frequency of Response:	On occasion
Annual number of Responses:	2 requests for special consideration
Annual Burden:	50 hours

Calculation: 2 special consideration requests x 25 hrs. = 50 hours

(8) FRA may request the passenger railroad to submit additional information to support its request before FRA approves the request.

FRA estimates that it will make one (1) request for additional information from passenger railroads to support their special approval petition/request under the above requirement. It is estimated that it will take approximately 12 hours for the passenger railroad to gather the additional information, complete that document, and send it to FRA. Total annual burden for this requirement is 12 hours.

Respondent Universe:	30 railroads
Burden time per response:	12 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 additional information document
Annual Burden:	12 hours

Calculation: 1 additional information document x 12 hrs. = 12 hours

(d) No later than **[INSERT DATE 1,095 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, each railroad shall adopt and comply with operating rules on how to safely override a door summary circuit or no-motion system, or both, in the event of an en route exterior side door failure or malfunction on a passenger train. Railroads shall provide these written rules to their crewmembers and control center personnel and make them available for inspection by FRA. These written rules shall include:

(i) Instructions to crewmembers and control center personnel, describing what conditions must be present in order to override the door summary circuit or no-motion system, or both; and

(ii) Steps crewmembers and control center personnel must take after the door summary circuit or no-motion system, or both, have been overridden to help provide for continued passenger safety.

Since the implementation period will take place over three years, FRA estimates that approximately one-third of the 30 railroads will develop operating rules each year. Further, FRA estimates that 25 percent of the estimated 30 railroads will only need to review and update their existing operating rules. These are the larger volume passenger railroads. The remaining 75 percent will require additional time to develop and implement their operating rules that conform to the above requirements. It is estimated that it will take the larger railroads will take approximately 24 hours to update their operating rules and the smaller railroads approximately 48 hours develop each such operating rules. The weighted average time burden is 42 hours $((.25 \times 24 \text{ hours}) + (.75 \times 48 \text{ hours}) = 42 \text{ hours})$. Total annual burden for this requirement then is 420 hours.

Respondent Universe:	30 railroads
Burden time per response:	42 hours
Frequency of Response:	On occasion
Annual number of Responses:	10 operating rules
Annual Burden:	420 hours

Calculation: 10 operating rules x 42 hours = 420 hours

Additionally, FRA estimates that approximately 10,000 copies operating rules on how to safely override a door summary circuit and/or no-motion system in the event of an en route door failure or malfunction will be provided to crewmembers and control center personnel under the above requirement. It is estimated that it will take approximately one (1) minute to make each operating rule copy. Total annual burden for this requirement is 167 hours.

Respondent Universe:	30 railroads
Burden time per response:	1 minute
Frequency of Response:	On occasion
Annual number of Responses:	10,000 operating rules copies
Annual Burden:	167 hours

Calculation: 10,000 operating rules copies x 1 min. = 167 hours

(e) No later than **[INSERT DATE 1,095 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, each passenger train crewmember must be trained on:

- (1) The requirements of this section; and
- (2) How to identify and isolate equipment with a malfunctioning exterior powered or

manual side door.

FRA estimates that approximately 10,000 operating and control center employees will need to be trained on the requirements of this section. FRA estimates that a little more than a third of these employees or 3,383 employees will be trained each year. It is estimated that it will take approximately 30 minutes to train each employee. Total annual burden for this requirement is 1,692 hours.

Respondent Universe:	30 railroads
Burden time per response:	30 minutes
Frequency of Response:	On occasion
Annual number of Responses:	3,383 trained employees
Annual Burden:	1,692 hours

Calculation: 3,383 trained employees x 30 min. = 1,692 hours

Additionally, FRA estimates that approximately 150 new employees will need to be trained each year on the requirements of this section. It is estimated that it will take approximately 30 minutes to train each employee. Total annual burden for this requirement is 75 hours.

Respondent Universe:	30 railroads
Burden time per response:	30 minutes
Frequency of Response:	On occasion
Annual number of Responses:	150 new employees
Annual Burden:	75 hours

Calculation: 150 new employees x 30 min. = 75 hours

(f) No later than **[INSERT DATE 1,095 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, each railroad shall adopt and comply with operating rules requiring train crewmembers to determine the status of their train's exterior side doors so that their train may safely depart a station. These rules shall require crewmembers to determine that there are no obstructions in their train's exterior side doors before the train departs.

The burden for developing operational rules is included above under § 238.135(d) above. Consequently, there is no additional burden associated with this requirement.

(g) Beginning **[INSERT DATE 1,095 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, each railroad must periodically conduct operational (efficiency) tests and observations of its operating crewmembers and control center

personnel as appropriate to their roles, to determine each individual's knowledge of the railroad's powered and manual exterior side door safety procedures for its passenger trains.

FRA estimates that approximately 3,383 operational (efficiency) tests/observations of its operating crewmembers and control center employees will be conducted by railroads to determine their knowledge of the railroad's exterior powered side door safety procedures under the above requirement. It is estimated that it will take approximately two (2) minutes to conduct train each operational (efficiency) tests/observations. Total annual burden for this requirement is 113 hours.

Respondent Universe:	30 railroads
Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	3,383 operational (efficiency) tests/observations
Annual Burden:	113 hours
Calculation:	$3,383 \text{ operational (efficiency) tests/observations} \times 2 \text{ min.} = 113 \text{ hours}$

Total annual burden for this requirement is 2,529 hours (50 + 12 + 420 + 167 + 1,692 + 75 + 113).

§ 238.137 Mixed Consist (Operating Equipment with Incompatible Exterior Side Door Systems)

No later than **[INSERT DATE 1,095 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, each railroad shall adopt and comply with operating rules to provide for the safe use of equipment with incompatible exterior side door systems when utilized in a mixed consist.

The burden for developing operational rules is included above under § 238.135(4) above. Consequently, there is no additional burden associated with this requirement.

Subpart C - Specific Requirements for Tier I Passenger Equipment

§ 238.201 Alternative Compliance.

(b)(1) Alternative compliance. Passenger equipment of special design shall be deemed to comply with this subpart, other than § 238.203, for the service environment the petitioner proposes to operate the equipment in if the Associate Administrator determines under paragraph (c) of this section that the equipment provides at least an equivalent level of safety in such environment for the protection of its occupants from serious injury in the

case of a derailment or collision. In making a determination under paragraph (c), the Associate Administrator must consider, as a whole, all of those elements of casualty prevention or mitigation relevant to the integrity of the equipment that are addressed by the requirements of this subpart.

(2)(i) Tier I passenger trainsets may comply with the alternative crashworthiness and occupant protection requirements in appendix G to this part instead of the requirements of §§ 238.203, 238.205, 238.207, 238.209(a), 238.211, 238.213, and 238.219. (**New provisions/requirements**)

(ii) To assess compliance with the alternative requirements, the railroad shall submit the following documents to the Associate Administrator, for review:

(A) Test plans, and supporting documentation for all tests intended to demonstrate compliance with the alternative requirements and to validate any computer modeling and analysis used, including notice of such tests, 30 days prior to the commencement of the tests; and

FRA estimates approximately one (1) test plan and supporting documentation for Tier I passenger trainsets complying with alternative crashworthiness and occupant protection requirements will be submitted to FRA under the above requirement. It is estimated that it will take approximately 40 hours to develop and submit each test plan and supporting documentation. Total annual burden for this information collection requirement is 40 hours.

Respondent Universe:	30 railroads
Burden time per response:	40 hours
Frequency of Response:	On occasion
First year number of Responses:	1 test plan/supporting documentation
First year Burden:	40 hours

Calculation: 1 test plan/supporting documentation x 40 hrs. = 40 hours

Additionally, FRA estimates approximately one (1) notice of tests will be sent to FRA 30 days prior to the commencement of tests under the above requirement. It is estimated that it will take approximately 30 minutes to complete each notice and send it to FRA. Total annual burden for this information collection requirement is one (1) hour.

Respondent Universe:	30 railroads
Burden time per response:	30 minutes
Frequency of Response:	On occasion
First year number of Responses:	1 notice of tests
First year Burden:	1 hour

Calculation: 1 notice of tests x 30 min. = 1 hour

(B) A car body crashworthiness and occupant protection compliance report based on the analysis, calculations, and test data necessary to demonstrate compliance.

The burden for this requirement is already included under that of § 238.201(b)(2)(ii)(A) above. Consequently, there is no additional burden associated with this requirement.

(iii) The car body crashworthiness and occupant protection compliance report shall be deemed acceptable unless the Associate Administrator stays action by written notice to the railroad within 60 days after receipt of those submissions.

FRA estimates that there will be zero (0) revised compliance reports completed under the above requirement. Consequently, there is no burden associated with it.

(A) If the Associate Administrator stays action, the railroad shall correct any deficiencies FRA identified and notify FRA it has corrected the deficiencies before placing the subject equipment into service.

(B) FRA may also impose written conditions necessary for safely operating the equipment, for cause stated.

(c)(1) The Associate Administrator may only make a finding of equivalent safety and compliance with this subpart, other than § 238.203, based upon a submission of data and analysis sufficient to support that determination. The petition must include:

- (i) The information required by § 238.21(c);
- (ii) Information, including detailed drawings and materials specifications, sufficient to describe the actual construction of the equipment of special design;
 - (iii) Engineering analysis sufficient to describe the likely performance of the equipment in derailment and collision scenarios pertinent to the safety requirements for which compliance is required and for which the equipment does not conform to the specific requirements of this subpart; and
- (iv) A quantitative risk assessment, incorporating the design information and engineering analysis described in this paragraph, demonstrating that the equipment, as utilized in the service environment for which recognition is sought, presents no greater hazard of serious personal injury than equipment that conforms to the specific requirements of this subpart.

(2) Any petition made under this part is subject to the procedures set forth in

§ 238.21, and will be disposed of in accordance with § 238.21(g).

The paperwork burden for these requirements is included under section 238.21. Consequently, there is no additional burden associated with this requirement.

Total annual burden for this information collection requirement is 41 hours (40 + 1).

§ 238.203 Static end strength

Grandfathering of non-compliant equipment for use on a specified rail line or lines.

(1) Grandfathering approval is equipment and line specific. Grandfathering approval of non-compliant equipment under this paragraph is limited to usage of the equipment on a particular rail line or lines. Before grandfathered equipment can be used on another rail line, a railroad must file and secure approval of a grandfathering petition under paragraph (d)(3) of this section.

(2) Temporary usage of non-compliant equipment. Any unit of passenger equipment placed in service on a rail line or lines before November 8, 1999, that does not comply with the requirements of paragraph (a)(1) of this section may continue to be operated on that particular line or (those particular lines) if the operator of the equipment files a petition seeking grandfathering approval under paragraph (d)(3) before November 8, 1999. Such usage may continue while the petition is being processed, but in no event longer than May 8, 2000, unless the petition is approved.

(3) Petitions for grandfathering. Petitions for grandfathering must include:

- (i) The name, title, address, and telephone number of the primary person to be contacted with respect to the petition;
- (ii) Information, including detailed drawings and material specifications, sufficient to describe the actual construction of the equipment;
- (iii) Engineering analysis sufficient to describe the likely performance of the static end strength of the equipment and the likely performance of the equipment in derailment and collision scenarios pertinent to the equipment's static end strength;
- (iv) A description of risk mitigation measures that will be employed in connection with the usage of the equipment on a specified rail line or lines to decrease the likelihood of accidents involving the use of the equipment; and
- (v) A quantitative risk assessment, incorporating the design information, engineering analysis, and risk mitigation measures described in this paragraph, demonstrating that the use of the equipment, as utilized in the service environment for which

recognition is sought, is in the public interest and is consistent with railroad safety.

Three copies of each petition must be submitted to the Associate Administrator for Safety, Federal Railroad Administration, 1200 New Jersey Ave., S.E., Mail Stop 25, Washington, DC 20590.

FRA estimates that it will receive zero (0) grandfathering petitions under the above requirement over the next few years. Consequently, there is no burden associated with this provision.

Comment. Not later than 30 days from the date of publication of the notice in the Federal Register concerning a petition under paragraphs (d) of this section, any person may comment on the petition. Each comment must set forth specifically the basis upon which it is made, and contain a concise statement of the interest of the commenter in the proceeding.

Each comment must be submitted to the DOT Central Docket Management System, 1200 New Jersey Ave., S.E., Washington, D.C. 20590, and must contain the assigned docket number for that proceeding. The form of such submission may be in written or electronic form consistent with the standards and requirements established by the Central Docket Management System and posted on its web site at <http://dms.dot.gov>.

Since FRA estimates that it will receive zero (0) grandfathering petitions under paragraph (d) of this section, it is clear that there would be no cause or need for comment. Consequently, there is no burden associated with this provision.

§ 238.211 Collision posts.

The end structure requirements of this section apply only to the ends of a semi-permanently coupled consist of articulated units, provided that: (1) The railroad submits to FRA under the procedures specified in §238.21 a documented engineering analysis establishing that the articulated connection is capable of preventing disengagement and telescoping to the same extent as equipment satisfying the anti-climbing and collision post requirements contained in this subpart; and (2) FRA finds the analysis persuasive.

The paperwork burden for these requirements is included under section 238.21. Consequently, there is no additional burden associated with this requirement.

§ 238.213 Corner Posts.

Each cab car and MU locomotive ordered on or after May 10, 2010, or placed in service for the first time on or after March 8, 2012, utilizing low-level passenger boarding

on the non-operating side of the cab end shall meet the corner post requirements of paragraph (b) of this section for the corner post on the side of the cab containing the control stand. In lieu of the requirements of paragraph (b) of this section, and after FRA review and approval of a plan, including acceptance criteria, to evaluate compliance with this paragraph (c), each such cab car and MU locomotive may have two corner posts on the opposite (non-operating) side of the cab from the control stand meeting all of the requirements set forth in paragraphs (c)(2) through (c)(4) of this section:

FRA estimates it approximately 10 plans will be developed under the above requirement. It is estimated that it will take approximately 40 hours to develop each plan. Total annual burden for this requirement is 400 hours.

Respondent Universe:	30 railroads
Burden time per response:	40 hours
Frequency of Response:	On occasion
Annual number of Responses:	10 plans
Annual Burden:	
	400 hours

Calculation: 10 plans x 40 hrs. = 400 hours

§ 238.223 Locomotive Fuel tanks.

External fuel tanks. External locomotive fuel tanks must comply with the requirements contained in Appendix D to this part, or an industry standard providing at least an equivalent level of safety if approved by FRA under § 238.21.

The paperwork burden for these requirements is included under section 238.21. Consequently, there is no additional burden associated with this requirement.

§ 238.229 Safety Appliances

A. (1) Welded Safety Appliances. Passenger equipment place in service prior to January 1, 2007, that is equipped with a safety appliance, required by the “manner of application” provisions in part 231 of this chapter to be attached by a mechanical fastener (i.e., bolts, rivets, or screws), and the safety appliance is mechanically fastened to a bracket or support that is attached to the equipment by welding may continue to be used in service

provided all the requirements in paragraphs (e) through (k) of this section are met. The welded safety appliance bracket or support only needs to receive the initial visual inspection required under paragraph (g)(1) of this section if all of the following conditions are met: (i) The welded safety appliance bracket or support meets all of the conditions contained in § 238.230(b)(1) for being considered part of the car body; (ii) The weld on the safety appliance bracket or support does not contain any defect or crack as defined in paragraph (d) of this section; and (iii) The railroad submits a written list to FRA identifying each piece of passenger equipment equipped with a welded safety appliance bracket or support as described in paragraph (b)(1)(i) and (b)(1)(ii) of this section and provides a description of the specific safety appliance bracket or support.

FRA estimates that approximately 30 lists (one for each of the affected railroads) will be submitted to FRA under the above requirement. It is estimated that it will take approximately 60 minutes to complete each list with the necessary descriptions. Total annual burden for this requirement is 30 hours.

		Respondent Universe:	
		30 railroads	
Burden time per response:	60 minutes		
Frequency of Response:	On occasion		
Annual number of Responses:	30 lists		
Annual Burden:		30 hours	
<u>Calculation:</u>			30 lists
			x 60
			min. =
			30
			hours

(2) Passenger equipment placed in service prior to January 1, 2007, that is equipped with a safety appliance that is directly attached to the equipment by welding (i.e., no mechanical fastening of any kind) shall be considered defective and immediately handled for repair pursuant to the requirements contained in § 238.17(e) unless the railroad meets the following: (i) The railroad submits a written list to FRA that identifies each piece of passenger equipment equipped with a welded safety appliance as described in paragraph (c)(2) of this section and provides a description of the specific safety appliance; and (ii) The involved safety appliance(s) on such equipment is inspected and handled pursuant to the requirements contained in paragraphs (g) through (k) of this section.

FRA estimates that approximately 30 lists (with the required information stipulated in

§238.229(e)) will be submitted to FRA under the above requirement. It is estimated that it will take approximately 60 minutes to complete each list with the necessary descriptions. Total annual burden for this requirement is 30 hours.

		Respondent Universe: 30 railroads
Burden time per response:		60 minutes
Frequency of Response:		On occasion
Annual number of Responses:	30 lists	
Annual Burden:		30 hours

Calculation: 30 lists x 60 min. = 30 hours

- B. Defective welded safety appliance or welded safety appliance bracket or support.
 Passenger equipment with a welded safety appliance or a welded safety appliance bracket or support will be considered defective and shall be handled in accordance with § 238.17(e) if any part or portion of the weld contains a defect. Any repairs made to such equipment shall be in accordance with the inspection plan required in paragraph (g) of this section and the remedial actions identified in paragraph (j) of this section. A defect for the purposes of this section means a crack or fracture of any visibly discernible length. When appropriate, civil penalties for improperly using or hauling a piece of equipment with a defective welded safety appliance or safety appliance bracket or support addressed in this section will be assessed as an improperly applied safety appliance pursuant to the penalty schedule contained in Appendix A to part 231 of this chapter under the appropriate code contained therein.

§ 238.17(e) stipulates that equipment not in compliance with this part or part 231 of this chapter, if applicable, may be moved if a tag is placed on both sides of the passenger equipment or an automated tracking system contains the information required under (c) (4) of this section. Consequently, FRA estimates that approximately four (4) tags will be completed regarding a defective welded safety appliance or a defective welded safety appliance bracket or support. It is estimated that it will take approximately three (3) minutes to complete each tag with the required information. Total annual burden for this requirement is .20 hour.

		Respondent Universe: 30 railroads
Burden time per response:		3 minutes
Frequency of Response:		On occasion
Annual number of Responses:	4 tags	
Annual Burden:		.20 hour

Calculation: 4 tags x 3 min. = .20 hour

Also, § 238.17(e) stipulates that equipment not in compliance with this part or part 231 of this chapter, if applicable, may be moved after the notification of the crewmember in charge of the movement of the defective equipment who, in turn, must inform all other crewmembers of the presence of the defective condition.

FRA estimates that approximately two (2) notifications will be made regarding the movement of a defective welded safety appliance or a defective welded safety appliance bracket or support. It is estimated that it will take approximately one (1) minute to complete notification. Total annual burden for this requirement is .0333 hour.

Respondent Universe:	30 railroads
Burden time per response:	1 minute
Frequency of Response:	On occasion
Annual number of Responses:	2 notifications
Annual Burden:	.0333 hour

Calculation: 2 notifications x 1 min. = .0333 hour

- C. Identification of equipment. The railroad must submit a written list to FRA that identifies each piece of passenger equipment equipped with a welded safety appliance bracket or support by January 1, 2007. Passenger equipment placed in service prior to January 1, 2007, but not discovered until after January 1, 2007, must be immediately added to the railroad's written list and must be immediately inspected in accordance with paragraphs (g) through (k) of this section. The written list submitted by the railroad must contain the following: (1) The equipment number; (2) The equipment type; (3) The safety appliance bracket(s) or support(s) affected; (4) Any equipment and any specific safety appliance bracket(s) or supports(s) on the equipment that will not be subject to the inspection plan required in paragraph (g) of this section; (5) A detailed explanation for any such exclusion recommended in paragraph (e)(4) of this section.

The burden for this provision is already included under that of § 238.229A above. Consequently, there is no additional burden associated with this requirement.

- D. Inspection Plans. The railroad shall adopt and comply with and submit to FRA upon request a written safety appliance inspection plan. At a minimum, the plan must include the following: (1) Except as provided in paragraph (c)(1) of this section, an initial visual inspection (within one (1) year of date of publication) and periodic re-inspections (at intervals not to exceed six (6) years) of each welded safety appliance bracket or support identified in paragraph (e) of this section. If significant disassembly of a car is necessary to visually inspect the involved safety appliance bracket or support, the initial visual inspection may be conducted at the equipment's first periodic brake equipment

maintenance interval pursuant to § 238.309 occurring after January 1, 2007; (2) Identify the personnel who will conduct the initial and periodic inspections and any training those individuals are required to receive in accordance with the criteria contained in paragraph (h) of this section; (3) Identify the specific procedures and criteria for conducting the initial and periodic safety appliance inspections in accordance with the requirements and criteria contained in paragraph (i) of this section. This shall identify the types of anomalies the inspection is to address that are likely to cause a failure of or a crack in the weld. This may include the adoption and compliance with any date specific industry accepted and developed procedure and criteria; (4) Identify when and what type of potential repairs or potential remedial action will be required for any defective welded safety appliance bracket or support discovered during the initial or periodic safety appliance inspection in accordance with paragraph (j) of this section; (5) Identify the records that will be maintained that are related to the initial and periodic safety appliance inspections in accordance with the requirements contained in paragraph (k) of this section.

FRA estimates that approximately 30 safety appliance inspection plans will be submitted to FRA annually under the above requirement. It is estimated that it will take approximately 16 hours to develop each plan, and send it to FRA. Total annual burden for this requirement is 480 hours.

		Respondent Universe: 30 railroads
Burden time per response:	16 hours	
Frequency of Response:	On occasion	
Annual number of Responses:	30 plans	
Annual Burden:	480 hours	
<u>Calculation:</u>		30 plans x 16 hrs. = 480 hours

- E. Inspection Personnel. The initial and periodic safety appliance inspections must be performed by individuals properly trained and qualified to identify defective weld conditions. At a minimum, these personnel include the following: (1) A qualified maintenance person (QMP) with at least four (4) hours of training specific to the identification of weld defects and the railroad's weld inspection procedures; (2) A current certified welding inspector (CWI) pursuant to American Welding Society Standard - AWS QC-1, Standard for AWS Certification of Welding Inspectors (1996) or its current

revised equivalent; (3) A person possessing a current Canadian Welding Bureau (CWB) certification pursuant to the Canadian Standards Association Standard W59 (2003) or its current revised equivalent; (4) A person possessing a current level II or level III visual inspector certification from the American Society for Non-destructive Testing pursuant to Recommended Practice SNT-TC-1A - Personnel Qualification and Certification in Nondestructive Testing (2001) or its current revised equivalent; or (5) A person possessing a current certification under any other nationally or internationally recognized welding qualification standard that is equivalent to those identified in paragraphs (h)(2) through (h)(4) of this section.

FRA estimates that approximately two (2) individuals will be trained from each of the 30 affected railroads to meet the above requirements/standards. Thus, approximately 60 employees will be trained under the above requirement. It is estimated that each training session will take approximately four (4) hours to train each individual. Total annual burden for this requirement is 240 hours.

	Respondent Universe: 30 railroads
Burden time per response:	4 hours
Frequency of Response:	On occasion
Annual number of Responses:	60 trained employees
Annual Burden:	240 hours

Calculation: 60 trained employees x 4 hrs. = 240 hours

- F. Inspection Procedures. A weld finally determined to contain a defect or crack shall be handled for repair in accordance with § 238.17(e) and repaired in accordance with the remedial action criteria contained in paragraph (j) of this section.

The burden for this requirement is already included under that of § 238.229B above. Consequently, there is no additional burden associated with this requirement.

- G. Remedial Action.

(1) Unless a defect or crack in a weld is known to have been caused by crash damage, the railroad must conduct a failure and engineering analysis of any weld identified in paragraph (e) of this section determined to have a break or crack either during the initial or periodic safety appliance inspection or while otherwise in service to determine if the break or crack is the result of crash damage, improper construction, or inadequate design. Based on the results of the analysis, the repair of the involved safety appliance bracket or support must be handled as follows: (1) A defect in a weld due to crash damage (i.e., impact of the safety appliance by an outside force during service or an accident) or improper construction (i.e., the weld did not conform to the engineered design) shall be

reattached by either mechanically fastening the safety appliance or the safety appliance bracket or support to the equipment or welding the safety appliance bracket or support to the equipment in a manner that is at least as strong as the original design or at least twice the strength of a bolted mechanical attachment, whichever is greater. If welding is used to repair the damaged appliance, bracket, or support, the following requirements must be met: (i) The repair must be conducted in accordance with the welding procedures contained in APTA standard SS-C&S-020-03 - Standard for Passenger Rail Vehicle Structural Repair (September 2003); or an alternative procedure approved by FRA pursuant to § 238.231; (ii) A qualified individual under paragraph (h) of this section must inspect the weld to ensure it is free of any cracks or fractures prior to the equipment being placed in-service; (iii) The welded safety appliance bracket or support must receive a periodic safety appliance inspection pursuant to the requirements contained in paragraphs (g) through (i) of this section; and (iv) A record of the welded repair pursuant to the requirements of paragraph (k) of this section must be maintained by the railroad.

FRA estimates that there might be one (1) accident a year where the above provision applies and a record of welded repairs will be kept. It is estimated that it will take approximately 2.25 hours to complete the necessary repair and corresponding record. Total annual burden for this requirement is two (2) hours.

Respondent Universe:	30 railroads
Burden time per response:	2.25 hours
Frequency of Response:	Annually
Annual number of Responses:	1 record
Annual Burden:	2 hours
<u>Calculation:</u>	1 record x 2.25 hrs. = 2 hours

(2) A defect in the weld that is due to inadequate design (i.e., unanticipated stresses or loads during service) must be handled in accordance with the following: (i) The railroad must immediately notify FRA’s Associate Administrator for Safety in writing of its discovery of a cracked or defective weld that is due to inadequate design; (ii) The involved safety appliance or the safety appliance bracket or support must be reattached to the equipment by mechanically fastening the safety appliance or the safety appliance bracket or support to the equipment unless such mechanical fastening is impractical due to the design of the equipment.

Based on information provided by APTA in this rulemaking’s RSAC meetings, FRA estimates that there will not be any problems relating to inadequate design and thus zero(0) notifications will be completed by railroads. Consequently, there is no burden associated with this requirement.

(iii) The railroad must develop and comply with a written plan submitted to and approved

by FRA's Associate Administrator for Safety detailing a schedule for all passenger equipment in that series of cars with a similar welded safety appliance bracket or support to have the involved safety appliance or the safety appliance bracket or support mechanically fastened to the equipment.

The burden for this provision is already included under that of inspection plans in § 238.229C above. Consequently, there is no additional burden associated with this requirement.

(iv) If a railroad determines that the design of the equipment makes it impractical to mechanically fasten the safety appliance or the safety appliance bracket or support to the equipment, then the railroad must submit a request to FRA for special approval of alternative compliance pursuant to § 238.21. Such a request must explain the necessity for any relief sought and must contain appropriate data and analysis supporting its determination that any alternative method of attachment provides at least an equivalent level of safety.

This provision relates to new equipment. FRA estimates that it will receive approximately 15 requests/petitions for special approval of alternative compliance under the above requirement. It is estimated that it will take approximately four (4) hours to complete each request (solely involving engineering analysis) and send it to FRA. Total annual burden for this requirement is four (4) hours.

	Respondent Universe:
	30 railroads
Burden time per response:	4 hours
Frequency of Response:	On occasion
Annual number of Responses:	15 requests/petitions
Annual Burden:	60 hours

Calculation: 15 requests/petitions x 4 hrs. = 60 hours

- H. Records. Railroads must maintain written or electronic records of the inspection and repair of the welded safety appliance brackets or supports on any equipment identified in paragraph (e) of this section. The records must be made available to FRA upon request. At a minimum, these records must include all of the following: (1) Training or certification records for any person performing any of the inspections or repairs required in this section. (2) The date, time, location, and identification of the person performing the initial and periodic safety appliance inspections for each piece of equipment identified in paragraph (e) of this section. This includes the identification of the person making any final determination as to the existence of a defect under paragraph (i)(5) of this section. (3) A record of all passenger equipment found with a safety appliance weldment that is defective either during the initial or periodic safety appliance inspection or while the

equipment is in-service. This record must also identify the cause of the crack or fracture.

(4) The date, time, location, identification of the person making the repair, and the nature of the repair to any welded safety appliance bracket or support identified in paragraph (e) of this section.

As noted above under § 238.229E, FRA estimates that approximately two (2) individuals for each railroad will need to be trained to perform inspections or repairs required by this section. Thus, 60 records will be kept by railroads for the first part of the above requirement. Additionally, FRA estimates 3,000 pieces of equipment will undergo the required initial inspection, and that it will take a total of 12 minutes to conduct the inspection and complete the corresponding record. (Periodic inspections need to be done once every six (6) years, and FRA does not anticipate any periodic inspections after the initial inspection in the next three years). Total annual burden then for this requirement is 612 hours.

	Respondent Universe:
	30 railroads
Burden time per response:	12 minutes
Frequency of Response:	On occasion
Annual number of Responses:	3,060 records
Annual Burden:	612 hours

Calculation: 3,060 records x 12 min. = 612 hours

Total annual burden for this entire requirement is 1,454 hours (30 + 30 + .20 + .0333 + 480 + 240 + 2 + 60 + 612).

§ 238.230 Safety Appliances - new equipment.

A. Welded Safety Appliances. Except as provided in this section, all passenger equipment placed into service on or after January 1, 2007, that is equipped with a safety appliance, required by the “manner of applications” provisions in part 231 of this chapter to be attached by a mechanical fastener (i.e., bolts, rivets, or screws), must have the safety appliance and any bracket or support necessary to attach the safety appliance to the piece of equipment mechanically fastened to the piece of equipment.

(1) Safety appliance brackets or supports considered part of the body. Safety appliance brackets or supports will be considered part of the car body and will not be required to be mechanically fastened to the piece of passenger equipment if all of the following are met: (i) The bracket or support is welded to a surface of the equipment’s body that is at a minimum 3/16-inch sheet steel or structurally reinforced to provide the equivalent strength and rigidity of 3/16-inch sheet steel; (ii) The area of the weld is sufficient to

ensure a minimum weld strength, based on yield, of three times the strength of the number of SAE grade 2, ½ inch diameter bolts that would be required for each attachment; (iii) Except for any access required for attachment of the safety appliance, the weld is continuous around the perimeter of the surface of the bracket or support; (iv) The attachment is made with fillet welds at least 3/16-inch in size; (v) The weld is designed for infinite fatigue life in the application that it will be placed; (vi) The weld is performed in accordance with the welding process and the quality control procedures contained in the current American Welding Society (AWS) Standard, the Canadian Welding Bureau (CWB) Standard, or an equivalent nationally or internationally recognized welding standard; (vii) The weld is performed by an individual possessing the qualifications to be certified under the current AWS Standard, CWB Standard, or any equivalent nationally or internationally recognized welding qualification standard; (viii) The weld is inspected by an individual qualified to determine that all of the conditions identified in paragraph (b)(1)(i) through (b)(1)(vii) of this section are met prior to the equipment being placed in service; and (ix) A written or electronic record of the inspection required in paragraph (b)(1)(viii) of this section shall be retained by the railroad operating the equipment and shall be provided to FRA upon request. At a minimum, this record shall include the date, time, location, identification of the person performing the inspection, and the qualifications of the person performing the inspection.

FRA estimates that approximately 100 inspections will be conducted and thus 100 written/electronic records will be kept under the above requirement. It is estimated that it will take approximately a total of six (6) minutes to perform each inspection and complete the required record. Total annual burden for this requirement is 10 hours.

Respondent Universe:
30 railroads

Burden time per response:	6 minutes
Frequency of Response:	On occasion
Annual number of Responses:	100 inspection records
Annual Burden:	10 hours

Calculation: 100 inspection records x 6 min. = 10 hours

(2) Directly welded safety appliances. Passenger equipment that is equipped with a safety appliance that is directly attached to the equipment by welding (i.e., no mechanical fastening of any kind) may be placed in service only if the railroad meets the following: (i) The railroad submits a written list to FRA that identifies each piece of new passenger equipment equipped with a welded safety appliance as described in paragraph (b)(2) of this section and provides a description of the specific safety appliance; (ii) The railroad provides a detailed basis as to why the design of the vehicle or placement of the safety appliance requires that the safety appliance be directly welded to the equipment; and (iii) The involved safety appliance(s) on such equipment is inspected and handled

pursuant to the requirements contained in § 238.229(g) through (k).

FRA estimates that zero (0) written lists will be completed for new passenger safety equipment equipped with a welded safety appliance as described in paragraph (b)(2) of this section. Consequently, there is no burden associated with this requirement.

(9)Other welded safety appliances and safety appliance brackets and supports. Except for safety appliance brackets and supports identified in paragraph (b)(1) of this section, safety appliance brackets and supports on passenger equipment shall not be welded to the car body unless the design of the equipment makes it impractical to mechanically fasten the safety appliance and it is impossible to meet the conditions for considering the bracket or support part of the car body contained in paragraph (b)(1) of this section. Prior to placing a piece of equipment in service with a welded safety appliance bracket or support as described in this paragraph, the railroad must submit documentation to FRA, for FRA's review and approval, containing the following information: (i) Identification of the equipment by number, type, series, operating railroad, and other pertinent data; (ii) Identification of the safety appliance bracket(s) or support(s) not mechanically fastened to the equipment and not considered part of the car body under paragraph (b)(1) of this section; (iii) A detailed analysis describing the necessity to attach the safety appliance bracket or support to the equipment by means other than mechanical fastening; and (iv) A detailed analysis describing the inability to make the bracket or support part of the car body as provided for in paragraph (b)(1) of this section; and (v) A copy and description of the consensus or other appropriate industry standard used to ensure the effectiveness and strength of the attachment.

FRA estimates that approximately 15 documents containing the above required information will be submitted for FRA review and approval. It is estimated that it will take approximately four (4) hours to complete each set of documents. Total annual burden for this requirement is 60 hours.

Respondent Universe:	30 railroads
Burden time per response:	4 hours
Frequency of Response:	On occasion
Annual number of Responses:	15 documents
Annual Burden:	60 hours

Calculation: 15 documents x 4 hrs. = 60 hours

- B. Inspection and repair. Passenger equipment with a welded safety appliance or a welded safety appliance bracket or support will be considered defective and shall be handled in accordance with § 238.17(e) if any part or portion of the weld is defective or contains a crack as defined in § 238.229(d).

The burden for this requirement is included under that of § 238.229B above. Consequently, there is no additional burden associated with this provision.

Any safety appliance bracket or support approved by FRA pursuant to paragraph (b)(3) of this section shall be inspected and handled in accordance with the requirements contained in § 238.229(g) through (k).

The burden for the first part of this requirement is included under that of § 238.230A(3) above. The burden for the second part of this requirement is included under that of § 238.229 above. Consequently, there is no additional burden associated with this provision.

- C. Passenger Cars of Special Construction. A railroad or a railroad's recognized representative may submit a request for special approval of alternative compliance pursuant to § 238.21 relating to the safety appliance arrangements on any passenger car considered a car of special construction under § 238.18 of this chapter. Any such petition shall be in the form of an industry-wide standard and, at a minimum, must: (1) Identify the type(s) of car to which the standard would be applicable; (2) As nearly as possible, based upon the design of the equipment, ensure that the standard provides for the same complement of handholds, sill steps, ladders, hand or parking brakes, running boards, and other safety appliances as are required for a piece of equipment of the nearest approximate type already identified in part 231 of this chapter; (3) Comply with all statutory requirements relating to safety appliances contained at 49 U.S.C. §§ 20301 and 20302; (4) Specifically address the number, dimension, location, and manner of application of each safety appliance contained in the standard; (5) Provide specific analysis regarding why and how the standard was developed and specifically discuss the need or benefit of the safety appliance arrangement contained in the standard; and (6) Include drawings, sketches, or other visual aids that provide detailed information relating to the design, location, placement, and attachment of the safety appliances; and (7) Demonstrate the ergonomic suitability of the proposed arrangements in normal use. *The burden for this provision is already included under that § 238.230A above. Consequently, there is no additional burden associated with this requirement.*

Total annual burden for this entire requirement is 70 hours (10 + 60).

§ 238.231 Brake system.

- A. Passenger cars must be equipped with a means to apply the emergency brake that is accessible to passengers and located in the vestibule or passenger compartment. The emergency brake must be clearly identified and marked.

Emergency brakes are currently identified and marked from the factory. This information collection requirement would not impose any new paperwork burden.

B. Where practicable, the design of passenger equipment ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, shall not require an inspector to place himself or herself on, under, or between components of the equipment to observe brake actuation or release. Passenger equipment not designed in this manner shall be equipped and handled in accordance with one of the following:

(1) Equipped with piston travel indicators as defined in § 238.5 or devices of similar design and inspected pursuant to the requirements contained in § 238.313 (j); or

(2) Equipped with brake indicators as defined in § 238.5, designed so that the pressure sensor is placed in a location so that nothing may interfere with the air flow to brake cylinder and the equipment is inspected pursuant to the requirements contained in § 238.313(j).

The burden for inspections relating to the requirements of § 238.313(j) are included under that of § 238.313C below. Consequently, there is no additional burden associated with the above provision.

C. Except for MU locomotives, on locomotives so equipped, the hand or parking brake, as well as its parts and connections, must be inspected and necessary repairs made, as often as service requires, but not less frequently than every 368 days. The date of the last inspection must be either entered on Form FRA F 6180.49A, suitably stenciled or tagged on the equipment, or maintained electronically, provided FRA has access to the record upon request.

FRA estimates that approximately 2,500 forms/stencils/tags/electronic records regarding the date of the last inspection of the hand/parking brake (and its parts and connections) will be completed under the above requirement. It is estimated that it will take approximately 21 minutes to complete the inspection and corresponding form/stencil/tag/electronic record. Total annual burden for this requirement is 875 hours.

Respondent Universe:
30 railroads

Burden time per response:	21 minutes
Frequency of Response:	On occasion
Annual number of Responses:	2,500 forms/stencils/tags/records
Annual Burden:	875 hours

Calculation: 2,500 forms/tags/stencils/records x 21 min. = 875 hours

D. A train's air brake shall not be depended upon to hold unattended equipment (including a locomotive, a car, or a train whether or not locomotive is attached). For purposes of this section, "unattended equipment" means equipment left standing and unmanned in such a

manner that the brake system of the equipment cannot be readily controlled by a qualified person. Unattended equipment shall be secured in accordance with the following requirements: (i) A sufficient number of hand or parking brakes shall be applied to hold the equipment. Railroads shall develop and implement a process or procedure to verify that the applied hand or parking brakes will sufficiently hold the equipment with the air brakes released; (ii) Except for equipment connected to a source of compressed air (e.g., locomotive or ground air source), prior to leaving equipment unattended, the brake pipe shall be reduced to zero at a rate that is no less than a service rate reduction; (iii) At a minimum, the hand or parking brake shall be fully applied on at least one locomotive or vehicle in an unattended locomotive consist or train; (iv) A railroad shall develop, adopt, and comply with procedures for securing any unattended locomotive required to have a hand or parking brake applied when the locomotive is not equipped with an operative hand or parking brake; (v) A railroad shall adopt and comply with instructions to address throttle position, status of the reverser lever, position of the generator field switch, status of the independent brakes, position of the isolation switch, and position of the automatic brake valve, or the functional equivalent of these items, on all unattended locomotives. The procedures and instruction shall take into account weather conditions as they relate to throttle position and reverser handle; and (vi) Any hand or parking brakes applied to hold unattended equipment shall not be released until it is known that the air brake system is properly charged.

FRA estimates that approximately 30 procedures will be developed, adopted, and complied with under the above requirement. It is estimated that it will take approximately two (2) hours to develop the necessary procedures. Total annual burden for this requirement is 60 hours.

	Respondent Universe:
	30 railroads
Burden time per response:	2 hours
Frequency of Response:	On occasion
Annual number of Responses:	30 procedures
Annual Burden:	60 hours

Calculation: 30 procedures x 2 hrs. = 60 hours

Total annual burden for this entire requirement is 935 hours (875 + 60).

§ 238.237 Automated monitoring.

Except as further specified in this paragraph, on or after November 8, 1999, a working alerter or deadman control must be provided in the controlling locomotive of each passenger train operating in other than cab signal, automatic train control, or automatic train stop territory. If the controlling locomotive is ordered on or after September 8,

2000, or placed into service for the first time on or after September 9, 2002, a working alerter must be provided.

Alerter or deadman control timing must be set by the operating railroad taking into consideration maximum train speed and capabilities of the signal system. The railroad must document the basis for setting alerter or deadman control timing and make this documentation available to FRA upon request.

FRA estimates that approximately three (3) railroads will have to prepare documentation under this information collection requirement. FRA estimates that it will take approximately two (2) hours to prepare the required documentation. Total annual burden for this requirement is six (6) hours.

Respondent Universe:	30 Railroads
Burden time per response:	2 hours
Frequency of Response:	One-time
One time number of Responses:	3 documents
One time Burden:	6 hours

Calculation: 3 documents x 2 hrs. = 6 hours

The following procedures apply if the alerter or deadman control fails en route and causes the locomotive to be in non-compliance with paragraph (a)(of this section):

(1)(i) A second person qualified on the signal system and brake application procedures must be stationed in the locomotive cab; or

(1)(ii) The engineer must be in constant communication with a second crewmember until the train reaches the next terminal.

The above communication requirement is a usual and customary procedure, and is part of the operating rules of American railroads. Therefore, there is no additional paperwork burden.

(2) A tag must be prominently displayed in the locomotive cab to indicate that the alerter or deadman control is defective, until such device is repaired; and when the train reaches its next terminal or the locomotive undergoes its next calendar day inspection, whichever occurs first, the alerter or deadman control must be repaired or the locomotive must be removed as the controlling locomotive in the train.

FRA estimates that approximately 25 tags annually will be displayed in locomotive cabs under this requirement. It is estimated that each tag will take approximately three (3) minutes to complete and place in the locomotive cabs. Total annual burden for this

requirement is one (1) hour.

		Respondent Universe:
		30 railroads
Burden time per response:	3 minutes	
Frequency of Response:	Annually	
Annual number of Responses:	25 tags	
Annual Burden:	1 hour	

Calculation: 25 tags
x 3
min. =
1 hour

Total annual burden for this entire requirement is seven (7) hours (6 +1).

Subpart D - Inspection, Testing, and Maintenance Requirements for Tier I Passenger Equipment

§ 238.301 Scope

Beginning on January 1, 2002, the requirements contained in this subpart shall apply to railroads operating Tier I passenger equipment covered by this part. A railroad may request earlier application of the requirements contained in this subpart upon written notification to FRA’s Associate Administrator for Safety as provided in § 238.1(c) of this part.

The timeframe for this requirement regarding early applications has passed. Consequently, there is no additional burden associated with this requirement.

§ 238.303 Exterior calendar day mechanical inspection of passenger equipment.

A. Each passenger car and each unpowered vehicle added to a passenger train shall receive an exterior calendar day mechanical inspection in accordance with the following:

- (1) Except as provided in paragraph (b)(2) of this section, each passenger car and each unpowered vehicle added to a passenger train shall receive an exterior calendar day mechanical day inspection at the time it is added to the train unless notice is provided to the train crew that an exterior mechanical inspection was performed on the car or vehicle

on the last day it was used in passenger service. The notice required by this section must contain the date, time, and location of the last exterior mechanical inspection.

FRA estimates that approximately 30 notices will be provided to train crews annually under the above requirement. This notice can be written or electronic. It is estimated that each notice will take approximately one (1) minute to complete. Total annual burden for this requirement is one (1) hour (rounded off).

	Respondent Universe:
	30 railroads
Burden time per response:	1 minute
Frequency of Response:	Annually
Annual number of Responses:	30 notices
Annual Burden:	1 hour

Calculation: 30 notices x 1 min. = 1 hour

(2) Each express car, freight car, and each unit of intermodal equipment (for example, RoadRailers) added to a passenger train shall receive an exterior calendar day mechanical inspection at the time it is added to the train, unless notice is provided to the train crew that an exterior mechanical inspection was performed on the car within the previous calendar day. The notice required by section must contain the date, time, and location of the last exterior mechanical inspection.

Since this provision applies to Amtrak only and since Amtrak does the required exterior calendar day mechanical inspection before adding cars to its passenger trains, FRA estimates that there will be zero (0) notices issued under the above requirement. Consequently, there is no burden associated with this requirement.

B. As part of the exterior calendar day mechanical inspection, the railroad must verify conformity with the following conditions, and non-conformity with any such condition renders the passenger car or unpowered vehicle used in a passenger train defective whenever discovered in service:

(I.) Each door and cover plate guarding high voltage equipment is marked "Danger--High Voltage" or with the word "Danger" and the normal voltage carried by the parts so protected.

Such marking is the usual and customary procedure. Consequently, there is no additional paperwork burden.

(II.) Each secondary braking system is in operating mode and does not have any known defective condition which prevents its proper operation. If the dynamic brakes on a

locomotive are found not to be in operating mode or are known to have a defective condition which prevents their proper operation at the time that the exterior mechanical inspection is performed or at any other time while the locomotive is in service, the following requirements must be met in order to continue the locomotive in service:

(i)MU locomotives equipped with dynamic brakes found not to be in operating mode or containing a defective condition which prevents the proper operation of the dynamic brakes shall be handled in accordance with the following requirements:

(A) A tag bearing the words “inoperative dynamic brakes” must be securely displayed in a conspicuous location in the cab of the locomotive and contain the locomotive number, the date and location where the condition was discovered, and the signature of the individual who discovered the condition.

FRA estimates approximately 25 MU locomotives equipped with dynamic brakes found not to be in operating mode or containing a defective condition preventing the operation of the dynamic brakes will have to be tagged/carded annually (or this information will be placed in an automated tracking system) before they can be moved to the nearest repair facility. It is estimated that it will take approximately three (3) minutes per tag/card to record the required information (or to enter into an automated tracking system). Since tags/cards must be placed on both sides of the defective equipment, a total of 50 tags/cards will be completed. Total annual burden for this requirement is three (3) hours.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	50 tags/cards
Annual Burden:	3 hours

Calculation: 50 tags/cards x 3 min. = 3 hours

(B) The locomotive engineer must be informed in writing that the dynamic brakes on the locomotive are inoperative at the location where the locomotive engineer first takes charge of the train; and

The burden for this requirement is already included under the burden for the tagging requirement above. Because the tag is sufficient to notify the locomotive engineer that the dynamic brakes on the locomotive are inoperative, there is no additional burden associated with this requirement.

(C) The inoperative or defective dynamic brakes must be repaired or removed

from service by or at the locomotive's next exterior calendar mechanical inspection.

(ii) Conventional locomotives equipped with dynamic brakes found not to be in operating mode or containing a defective condition which prevents the proper operation of the dynamic brakes must be handled in accordance with the following:

(A) A tag bearing the words "inoperative dynamic brakes" must be securely displayed in a conspicuous location in the cab of the locomotive and contain the locomotive number, the date and location where the condition was discovered, and the signature of the person discovering the condition;

FRA estimates approximately 25 conventional locomotives equipped with dynamic brakes found not to be in operating mode or containing a defective condition preventing the operation of the dynamic brakes will have to be tagged annually. It is estimated that it will take approximately three (3) minutes per tag/card to record the required information (or to enter into an automated tracking system). Since both sides of the defective equipment must be tagged/carded, a total then of 50 tags/cards will be completed. Total annual burden for this requirement is three (3) hours.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	50 tags/cards
Annual Burden:	3 hours

Calculation: 50 tags/cards x 3 min. = 3 hours

(B) The locomotive engineer must be informed in writing that the dynamic brakes on the locomotive are inoperative at the location where the locomotive engineer first takes charge of the train; and

(C) The inoperative or defective dynamic brakes must be repaired within three (3) calendar days of being found in defective condition or at the locomotive's next periodic inspection pursuant to § 229.23 of this chapter, whichever occurs first.

The burden for this requirement is already included under the burden for the tagging requirement above. Because the tag is sufficient to notify the locomotive engineer that the dynamic brakes on the locomotive are inoperative, there is no additional burden associated with this requirement.

C. (e)(17) Each air compressor, on passenger equipment so equipped, must be in effective

and operative condition. MU passenger equipment found with an inoperative or ineffective air compressor at the time of its exterior calendar day mechanical inspection may remain in passenger service until the equipment's next exterior calendar day mechanical inspection where it must be repaired or removed from passenger service, provided all of the following requirements are met: (i) The equipment has an inherent redundancy of air compressors, due to either the make-up of the train consist or the design of the equipment; (ii) The railroad demonstrates through verifiable data, analysis, or actual testing that the safety and integrity of a train is not compromised in any manner by the inoperative or ineffective air compressor. The data, analysis, or test must establish the maximum number of air compressors that may be inoperative based on size of the train consist, type of passenger equipment in the train, and the number of service and emergency brake applications typically expected in the run profile for the involved train.

FRA estimates that approximately four (4) railroads will provide the required data, analysis, or testing under the above requirement. It is estimated that it will take approximately two (2) hours to complete each document containing the verifiable data and analysis or actual test. Total annual burden for this requirement is eight (8) hours.

	Respondent Universe:
	30 railroads
Burden time per response:	2 hours
Frequency of Response:	On occasion
Annual number of Responses:	4 documents
Annual Burden:	8 hours

Calculation: 4 documents x 2 hrs. = 8 hours

(iii) The involved train does not exceed the maximum number of inoperative or ineffective air compressors established in accordance with paragraph (e)(17)(ii) of this section; (iv) A qualified maintenance person determines and verifies that the inoperative or ineffective air compressor does not compromise the safety or integrity of the train and that it is safe to move the equipment in passenger service; (v) The train crew is informed in writing of the number of units in the train consist with inoperative or ineffective air compressors at the location where the train crew first takes charge of the train.

FRA estimates that approximately 100 train crews will be informed in writing about

inoperative or ineffective air compressors under the above requirement. It is estimated that it will take approximately three (3) minutes to complete each written message. Total annual burden for this requirement is five (5) hours.

	Respondent Universe:
	30 railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	100 written messages
Annual Burden:	5 hours

Calculation: 100 written messages x 3 min. = 5 hours

(vi) A record is maintained of the inoperative or ineffective air compressor pursuant to the requirements contained in § 238.17(c)(4).

FRA estimates that approximately 100 records will be completed under the above requirement. It is estimated that it will take approximately two (2) minutes to complete each record. Total annual burden for this requirement is three (3) hours.

	Respondent Universe:
	30 railroads
Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	100 records
Annual Burden:	3 hours

Calculation: 100 records x 2 min. = 3 hours

and (vii) Prior to operating equipment under the provisions contained in this paragraph, the railroad must provide in writing to FRA's Associate Administrator for Safety the maximum number of inoperative or ineffective air compressors identified in accordance with paragraph (e)(17)(ii) of this section. (viii) The data, analysis, or testing developed and conducted under paragraph (e)(17)(ii) of this section must be made available to FRA upon request. FRA's Associate Administrator for Safety may revoke a railroad's ability to utilize the flexibility provided in this paragraph if the railroad fails to comply with the maximum limits established under paragraph (e)(17)(ii) or if such maximum limits are not supported by credible data or do not provide adequate safety assurances.

The burden for this new requirement is included under that of (e)(17)(ii) above. Consequently, there is no additional burden associated with this requirement.

D. Records. A record must be maintained of each exterior calendar day mechanical

inspection performed. This record may be maintained in writing or electronically, provided FRA has access to the records upon request.

The written or electronic record must contain the following information: (a) The identification number of the unit; (b) The place, date, and time of the inspection; (c) Any non-complying conditions found; and (d) The signature or electronic identification of the inspector. This record may be part of a single master report covering an entire group of cars and equipment. This record must be maintained at the place where the inspection is conducted or at one central location, and must be retained for at least 92 days.

FRA estimates that approximately 37,685 cars will be inspected per week (7,537 cars daily), or an annual total of 1,959,620 cars. A record must be kept of each of these inspections. It is estimated that it takes approximately 10 minutes to complete each car inspection and approximately one (1) minute to complete each record. Total annual burden for this requirement is 359,264 hours.

Respondent Universe:	30 railroads
Burden time per response:	10 minutes + 1 minute
Frequency of Response:	On occasion
Annual number of Responses:	1,959,620 records
Annual Burden:	359,264 hours

Calculation: 1,959,620 records x 11 min. = 359,264 hours

Total annual burden for this entire requirement is 359,287 hours (1 + 3 + 3 + 8 + 5 + 3 + 359,264).

§ 238.305 Interior calendar day mechanical inspection of passenger cars.

(A) As part of the interior calendar day mechanical inspection, the railroad must verify conformity with the following conditions, and non-conformity with any such condition renders the car defective whenever discovered in service, except as provided in paragraph (c)(5) through (c)(10), and paragraph (d) of this section:

(i) The words "Emergency Brake Valve" are legibly stenciled or marked near each brake pipe valve or shown on an adjacent badge plate.

(ii) All doors and cover plates guarding high voltage equipment are marked "Danger--High Voltage" or with the word "Danger" and the normal voltage carried by the parts so protected.

These are the usual and customary procedures. Consequently, there is no additional

paperwork burden associated with this requirement.

(iii) All safety-related signage is in place and legible.

This is the usual and customary practice/procedure. Consequently, there is no additional burden.

(iv) Tagging requirement. All end doors and side doors must operate safely and as intended. A non-complying car may continue in passenger service pursuant to paragraph (d) of this section, if at least one operative and accessible door is available on each side of the car; and a notice is prominently displayed on the defective door indicating that the door is defective.

FRA estimates that approximately 13 of the railroads already tag their defective doors. It is estimated that the remaining nine (9) railroads will each have approximately 60 defective doors annually that will have to be tagged. It is also estimated that it will take approximately one (1) minute to place the required tag on a defective door. Total annual burden for this information collection requirement is nine (9) hours.

Respondent Universe:	30 Railroads
Burden time per response:	1 minute
Frequency of Response:	On occasion
Annual number of Responses:	540 tags
Annual Burden:	9 hours

Calculation: 540 tags x 1 min. = 9 hours

(vi) Any passenger car found not to be in compliance with the requirements contained in paragraphs (c)(5) through (c)(10) of this section at the time of its interior calendar day mechanical inspection may remain in passenger service until the car's next interior calendar day mechanical day inspection where it must be repaired or removed from passenger service, provided all of the specific conditions contained in paragraphs (c)(8) through (c)(10) of this section are met and all of the following requirements are met:

(1) A qualified person or a qualified maintenance person determines that the repairs necessary to bring the car into compliance cannot be performed at the time

that the current day's mechanical inspection is conducted;

(2) A qualified person or a qualified maintenance person determines that it is safe to move the equipment in passenger service; and

(3) A record is maintained of the non-complying condition with the date and time the condition was first diagnosed.

The burden for this requirement is included in that of (B) below under the burden for interior calendar mechanical inspection records. Consequently, there is no additional burden associated with this requirement.

(B) Records. A record must be maintained of each interior calendar day mechanical inspection performed. This record may be maintained in writing or electronically, provided FRA has access to the records upon request.

The written or electronic record must contain the following information: (a) The identification number of the unit; (b) The place, date, and time of the inspection; (c) Any non-complying conditions found; and (d) The signature or electronic identification of the inspector.

This record may be part of a single master report covering an entire group of cars and equipment. This record must be maintained at the place where the inspection is conducted or at one central location, and must be retained for at least 92 days.

FRA estimates that approximately 37,685 cars will be inspected weekly, for an annual total of 1,959,620. A record will be maintained for each car under this requirement, and thus a total of 1,959,620 records will be maintained each year. It is estimated that it will take approximately 10 minutes to complete each car inspection and approximately one (1) minute to complete each record. Total annual burden for this requirement is 359,264 hours.

Respondent Universe:	30 railroads	
Burden time per response:	10 minutes + 1 minute	
Frequency of Response:	On occasion	
Annual number of Responses:	1,959,620 records	
Annual Burden:		359,264 hours

Calculation: 1,959,620 records x 11 min. = 359,264 hours

Total annual burden for this requirement is 359,273 hours (9 + 359,264).

§ 238.307 Periodic mechanical inspection of passenger cars and unpowered vehicles used in passenger trains.

(A.) A railroad may, upon written notification to FRA’s Associate Administrator for Safety, adopt and comply with alternative periodic mechanical inspection intervals for specific components or equipment in lieu of the requirements of this section. Any alternative interval must be based upon a documented reliability assessment conducted under a system safety plan subject to periodic peer audit. The periodic inspection intervals provided in this section may be changed only when justified by accumulated, verifiable data that provides a high level of confidence that the component(s) will not fail in a manner resulting in harm to persons. FRA may monitor and review a railroad’s implementation and compliance with any alternative interval adopted. FRA’s Associate Administrator for Safety may prohibit or revoke a railroad’s ability to utilize an alternative inspection interval if FRA determines that the adopted interval is not supported by credible data or does not provide adequate safety assurances. Such a determination will be made in writing and will state the basis for such action.

FRA estimates that it will receive approximately two (2) notifications annually under this requirement. It is estimated that it will take approximately (5) hours to complete each written notification. Total annual burden for this requirement is 10 hours.

Respondent Universe:	30 railroads
Burden time per response:	5 hours
Frequency of Response:	On occasion
Annual number of Responses:	2 notifications
Annual Burden:	10 hours

Calculation: 2 notifications x 5 hrs. = 10 hours

(B.) Each periodic mechanical inspection required by this section must be performed by a qualified maintenance person. The periodic mechanical inspection must specifically include the following interior and exterior mechanical components, which shall be inspected not less frequently than every 184 days. At a minimum, this inspection shall determine that:

(1) Seats and seat attachments are not broken or loose. If a car is found with a seat that is not in compliance with this requirement while being used between periodic mechanical inspections, the equipment may continue to be used in passenger service until the performance of an interior calendar mechanical inspection pursuant to § 238.305 on the day following the discovery of the defective condition provided the seat is rendered un-useable, a notice is prominently displayed on the seat, and a record is maintained with the date and time that the non-complying condition was discovered.

FRA estimates that approximately 200 notices will be completed annually and

prominently displayed on seats as stipulated under the above requirement. It is estimated that each notice will take approximately two (2) minutes to complete. Total annual burden for this requirement is seven (7) hours.

Respondent Universe:	30 railroads
Burden time per response:	2 minutes
Frequency of Response:	Annually
Annual number of Responses:	200 notices
Annual Burden:	7 hours

Calculation: 200 notices x 2 min. = 7 hours

The burden for the record required above is included under that of item C below. Consequently, there is no additional burden associated with this requirement.

(2) Luggage racks are not broken or loose; (3) All beds and bunks are not broken or loose, and all restraints or safety latches and straps are in place and function as intended; (4) A representative sample of emergency window exits on the railroad's passenger cars properly operate, in accordance with the requirements of § 239.107 of this chapter; (5) Emergency lighting systems are operational; (6) With regard to switches: (i) All hand-operated switches carrying currents with a potential of more than 150 volts that may be operated while under load are covered and are operative from the outside of the cover; (ii) A means is provided to display whether the switches are open or closed; and (iii) Switches not designed to be operated safely while under load are legibly marked with the voltage and the words "must not be operated under load".

Legibly marking switches is the usual and customary practice/procedure. Consequently, there is no additional paperwork burden associated with this requirement.

(7) Each coupler is in the following condition: (i) The distance between the guard arm and the knuckle nose is not more than 5 1/8 inches on standard type couplers (MCB contour 1904), or not more 5 5/16 inches on D&E couplers; (ii) The free slack in the coupler or drawbar not absorbed by friction devices or draft gears is not more than 1/2 inch; and (iii) The draft gear is not broken, to the extent possible without dropping cover plates; (8) All trucks are equipped with a device or securing arrangement to prevent the truck and car body from separating in case of derailment; (9) All center castings on trucks are not cracked or broken, to the extent possible without jacking the car and rolling out the trucks. However, an extensive inspection of all center castings shall be conducted by jacking the equipment and rolling out trucks at each COT&S cycle provided in § 238.309 for the equipment: (10) All mechanical systems and components of the equipment are free of all the following general conditions that endanger the safety of the crew, passengers, or equipment: (i) A continuous accumulation of oil or grease; (ii) Improper functioning of a component; (iii) A crack, break, excessive wear, structural defect, or

weakness of a component; (iv) A leak; (v) Use of a component or system under a condition that exceeds that for which the component or system is designed to operate; and (vi) Insecure attachment of a component; (11) All of the items identified in the exterior calendar day mechanical inspection contained at § 238.303 are in conformity with the conditions prescribed in that section; (12) All of the items identified in the interior calendar day mechanical inspection contained at § 238.305 are in conformity with the conditions prescribed in that section. The periodic mechanical inspection shall specifically include the manual door releases, which shall be inspected not less frequently than every 368 days. At a minimum, this inspection shall determine that all manual door releases operate as intended.

(C.)(1) Records. A record must be maintained of each periodic mechanical inspection required to be performed by this section. This record may be maintained in writing or electronically, provided FRA has access to the record upon request. The record must be maintained in the railroad’s files, the cab of the locomotive, or a designated location in the passenger car. The record must be retained until the next periodic mechanical inspection of the same type is performed and must contain the following information: (i) The date of the inspection; (ii) The location where the inspection was performed; (iii) The signature or electronic identification of the inspector; and (iv) The signature or electronic identification of the inspector’s supervisor. Data documenting inspections, tests, component replacement and renewals, and failures must be retained for not less than three (3) inspection intervals. Non-conformity with any of the conditions set forth in this section renders the car or vehicle defective whenever discovered in service.

FRA estimates that approximately 9,642 passenger cars will undergo an inspection every six months, or an annual total of 19,284 periodic inspections. Records of these inspections must be kept. It is estimated that it will take approximately 200 hours per car to complete each inspection and approximately two (2) minutes to complete each record. Total annual burden under this requirement is 3,857,443 hours.

Respondent Universe:	30 Railroads
Burden time per response:	200 hrs. + 2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	19,284 inspections/records
Annual Burden:	3,857,443 hours

Calculation: 19,284 inspections x 200 hrs. + 19,284 records x 2 min. =
3,857,443 hours

(C.)(2) Detailed documentation of any reliability assessments depended upon for implementing an alternative inspection interval under paragraph (a)(2) of this section, including underlying data, must be retained during the period that the alternative

inspection interval is in effect.

FRA estimates that approximately five (5) documents concerning reliability assessments will be kept under this requirement. It is estimated that each document will take approximately 100 hours to complete. Total annual burden for this requirement is 500 hours.

Respondent Universe:	30 Railroads
Burden time per response:	100 hours
Frequency of Response:	On occasion
Annual number of Responses:	5 documents
Annual Burden:	500 hours

Calculation: 5 documents x 100 hrs. = 500 hours

- D. At intervals not to exceed 368 days, the periodic mechanical inspection shall specifically include the following: (1) Inspection of the manual door releases to determine that all manual door releases operate as intended; and (2) Inspection of the hand or parking brake as well as its parts and connections to determine that they are in proper condition and operate as intended. The date of the last inspection shall be either entered on Form FRA F 6180.49A, suitably stenciled or tagged on the equipment, or maintained electronically provided FRA has access to the record upon request.

The burden for this requirement is included above. Consequently, there is no additional burden associated with this requirement.

Total annual burden for this entire requirement is 3,857,960 hours (10 + 7 + 3,857,443 + 500).

§ 238.309 Periodic brake equipment maintenance.

A railroad may petition FRA's Associate Administrator for Safety to approve alternative maintenance procedures providing equivalent safety, in lieu of the requirements of this section. The petition must be filed as provided in § 238.21.

These requirements are included under § 238.21. Consequently, there is no additional burden associated with these requirements.

Records of periodic maintenance. The date and place of the cleaning, repairing, and testing required by this section must be recorded on Form FRA 6180-49A or a similar form developed by the railroad containing the same information, and the person performing the work and that person's supervisor must sign the form, if possible. Alternatively, the railroad may stencil the vehicle with the date and place of the cleaning, repairing, and testing and maintain an electronic record of the person performing the

work and that person’s supervisor. A record of the parts of the air brake system that are cleaned, repaired, and tested must be kept in the railroad’s files, the cab of the locomotive, or a designated location in the passenger car until the next such periodic test is performed.

Railroads currently keep these records as a usual and customary practice. Therefore, there is no additional paperwork burden.

§ 238.311 Single car test.

Except for self-propelled passenger cars, single car tests of all passenger cars and all unpowered vehicles used in passenger trains must be performed in accordance with APTA Standard SS—005-98, “Code of Tests for Passenger Car Equipment Using Single Car Testing Device,” published March 1998; or an alternative procedure approved by FRA pursuant to § 238.21.

These requirements are included under § 238.21. Consequently, there is no additional burden associated with these requirements.

If the single car test cannot be made at the point where repairs are made, the car may be moved in passenger service to the next forward location where the test can be made. A railroad may move a car in this fashion only after visually verifying an application and release of the brakes on both sides of the car that was repaired and provided that the car is appropriately tagged to indicate the need to perform a single car test. The single car test must be completed prior to, or as a part of, the car’s next calendar day mechanical inspection.

FRA estimates that approximately 25 cars will be tagged under this requirement. Tags will need to be placed on both sides of the car (50 tags total), and it is estimated that it will take approximately three (3) minutes to complete each tag on each side of the car.

Respondent Universe:	30 Railroads
Burden time per response:	3 minutes
Frequency of Response:	On occasion
Annual number of Responses:	50 tags
Annual Burden:	3 hours

Calculation: 50 tags x 3 min. = 3 hours

Total annual burden for this requirement is three (3) hours.

§ 238.313 Class I brake test.

- A. Each passenger car and each unpowered vehicle added to a passenger train must receive a Class I or Class IA brake test at the time it is added to the train unless notice is provided to the train crew that a Class I brake test was performed on the car within the previous calendar day and the car has not been disconnected from a source of compressed air for more than four hours prior to being added to the train. The notice required by this section must contain the date, time, and location of the last Class I brake test.

Railroads currently keep this information as part of their usual and customary procedure. Consequently, there is no additional paperwork burden.

- B. A record must be maintained of each Class I brake test performed. This record may be maintained in writing or electronically, provided FRA has access to the record upon request. The written or electronic record must contain the following information: (1) The date and time the Class I brake test was performed; (2) The location where the test was performed; (3) The identification number of the controlling locomotive of the train; (4) The total number of cars inspected during the test; and (5) The signature or electronic identification of the inspector. This record must be maintained at the place where the inspection is conducted or at one central location and must be maintained for 92 days.

Railroads currently keep this information as part of their usual and customary procedure. Consequently, there is no additional paperwork burden.

- C. In addition to complying with all the Class I brake test requirements performed by a qualified maintenance person as contained in paragraphs (a) through (i) of this section, railroads operating passenger equipment that is not designed to permit the visual observation of the brake actuation and release without the inspector going on, under, or between the equipment in accordance with § 238.231(b)(1) must perform an additional inspection. At a minimum, the additional inspection requirement for equipment so designed must include all of the following: (1) An additional inspection by a qualified maintenance person of all items and components contained in paragraphs (g)(1) through (g)(15) of this section; (2) The additional inspection must be conducted at an interval not to exceed five (5) in-service days and must be conducted while the equipment is over an inspection pit or on a raised inspection track; and (3) A record of the additional inspection must be maintained pursuant to the requirements contained in paragraph (h) of this section. This record can be combined with the Class I brake test record.

FRA estimates that approximately 15,600 records (300 records x 52 weeks) of additional inspections will be kept by railroads under the above requirement. It is estimated that it will take approximately 30 minutes to complete each inspection and corresponding record. Total annual burden for this requirement is 7,800 hours.

Respondent Universe:

		30 railroads
Burden time per response:	30 minutes	
Frequency of Response:	Annually	
Annual number of Responses:	15,600 records	
Annual Burden:	7,800 hours	

Calculation: 15,600 records x 30 min. = 7,800 hours

§ 238.315 Class IA brake test.

- A. A Class IA brake test may be performed at a shop site and is not required to be repeated at the first passenger terminal if the train remains on a source of compressed air and (1) the train remains in the custody of the train crew, or (2) the train crew receives notice that the Class IA brake test has been performed. The Class IA brake test must be performed by either a qualified person or a qualified maintenance person.

FRA estimates that approximately 18,250 notices will be received by train crews under the above requirement. It is estimated that will take approximately five (5) seconds to (verbally) communicate the information to the train crew. Total annual burden for this requirement is 25 hours.

Respondent Universe:	30 railroads
Burden time per response:	5 seconds
Frequency of Response:	On occasion
Annual number of Responses:	18,250 verbal notices
Annual Burden:	25 hours

Calculation: 18,250 verbal notices x 5 sec. = 25 hours

- B. A Class IA brake test shall be performed at the air pressure at which the train's air brakes will be operated and shall determine and ensure that the communication of brake pipe pressure changes at the rear of the train is verified, which may be accomplished by observation of an application and release of the brakes on the last car in the train. *This is a regulatory and not a paperwork requirement. Consequently, there is no burden associated with it.*

In performing a Class IA brake test, it shall be determined that the communicating signal system is tested and known to be operating as intended; a tested and operating two-way radio system meets this requirement.

The signal system can be either electric or pneumatic. FRA estimates that approximately 1,000 trains per day will be affected under this requirement, and will undergo a test for operational sufficiency (365,000 signal system tests annually) and that each test will take

approximately 15 seconds. Total annual burden for this requirement is 1,521 hours.

Respondent Universe:	30 railroads	
Burden time per response:	15 seconds	
Frequency of Response:	On occasion	
Annual number of Responses:	365,000 tests/communications	
Annual Burden:		1,521 hours

Calculation: 365,000 tests/communications x 15 seconds
= 1,521 hours

Total annual burden for this entire requirement is 1,546 hours (25 + 1,521).

§ 238.317 Class II brake test.

In performing a Class II brake test on a train, a railroad must determine that the brakes on the rear unit of the train apply and release in response to a signal from the engineer's brake valve or controller of the leading or controlling unit, or a gauge or similar device located at the rear of the train or in the cab of the rear unit indicates that brake pipe pressure changes are properly communicated at the rear of the train.

This is a signal requirement and not a paperwork requirement. Consequently, there is no burden it.

In performing a Class II brake test on a train, a railroad must determine that the communicating signal system is tested and known to be operating as intended; a tested and operating two-way radio system meets this requirement.

The signal system can be either electric or pneumatic. FRA estimates that approximately 1,000 trains per day will be affected under this requirement, and will undergo a test for operational sufficiency (365,000 signal system tests annually) and that each test will take approximately 15 seconds. Total annual burden for this requirement is 1,521 hours

Respondent Universe:	30 railroads	
Burden time per response:	15 seconds	
Frequency of Response:	On occasion	
Annual number of Responses:	365,000 tests/communications	
Annual Burden:		1,521 hours

Calculation: 365,000 tests/communications x 15 seconds = 1,521 hours

Total annual burden for this requirement is 1,521 hours.

§ 238.321 Out-of-service credit.

When a passenger car is out of service for 30 or more consecutive days or is out of service when it is due for any test or inspection required by § 238.307 or § 238.309, an out-of-use notation showing the number out of service days must be made in the records required under § 238.307(e) and § 238.309(f). If the passenger car is out of service for one or more periods of at least 30 consecutive days, the interval prescribed for any test or inspection required by § 238.307 and § 238.309 may be extended by the number of days in each period the passenger car is out of service since the last test or inspection in question. A movement made in accordance with § 2229.9 of this chapter or § 238.17 is not considered service for the purposes of determining the out-of-service credit.

FRA estimates that approximately 1,250 out-of-use notations will be made under the above requirement. It is estimated that each notation will take approximately two (2) minutes to complete each notation. Total annual burden for this requirement is 42 hours.

Respondent Universe:	30 railroads
Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	1,250 notations
Annual Burden:	42 hours

Calculation: 1,250 notations x 2 min. = 42 hours

Subpart E - Specific Requirements for Tier II Passenger Equipment

§ 238.403 Crash energy management requirements.

Compliance with paragraphs (a) through (d) of this section must be demonstrated by analysis using a dynamic collision computer model. For the purpose of demonstrating compliance, the following assumptions must be made:

- (1) The train remains upright, in-line, and with all wheels on the track throughout the collision; and
- (2) Resistance to structural crushing follows the force-versus-displacement relationship determined during the structural analysis required as part of the design of the train.

The analysis necessitated by this section has already been fulfilled by Amtrak for its high-speed train sets. Amtrak is the only foreseeable operator of Tier II passenger equipment. Consequently, there is no burden associated with this requirement.

§ 238.405 Longitudinal static compressive strength.

To form an effective crash refuge for crew members occupying the cab of a power car, the underframe of the cab of a power car must resist a minimum longitudinal compressive force of 2,100,000 pounds without permanent deformation to the cab, unless equivalent protection to crew members is provided under an alternate design approach, validated through analysis and testing, approved by FRA under the provisions of § 238.21.

These requirements are included under § 238.21. Consequently, there is no additional burden associated with these requirements.

§ 238.421 Glazing.

(a) Except as provided in paragraphs (b) and (c) of this section, each exterior window on a passenger car and a power car cab must comply with the requirements contained in part 223 of this chapter.

The burden for these requirements is included under OMB No. 2130-0525. Consequently, there is no additional burden associated with these requirements.

(b) Each end-facing exterior window on a passenger car and a power car must also, in the orientation in which it is installed in the car, be permanently marked, prior to installation, in such a manner that the marking is clearly visible after the material has been installed.

The marking must include:

- (1) The words “FRA TYPE IHP ”to indicate that the material has successfully passed the testing requirements specified in this paragraph;
- (2) The name of the manufacturer; and
- (3) The type or brand identification of the material.

This is a usual and customary procedure. Information required is currently applied by the manufacturer. Consequently, there is no burden associated with this requirement.

(c) All exterior windows must be permanently marked, prior to installation, in such a manner that the marking is clearly visible after the material has been installed.

The marking must include:

- (1) The words “FRA TYPE IH ” for end-facing glazing or “FRA TYPE IIH” for side-facing glazing, to indicate that the material has successfully passed the testing

requirements of this section;

- (2) The name of the manufacturer; and
- (3) The type or brand identification of the material.

This is a usual and customary procedure. Information required is currently applied by the manufacturer. Consequently, there is no burden associated with this requirement.

(d) Each car that is fully equipped with glazing materials that meet the requirements of this section must be stenciled on an interior wall as follows: “Fully Equipped with FRA Part 238 Glazing” or similar words conveying that meaning, in letters at least 3/8 of an inch high.

This is a usual and customary procedure. Information required is currently applied by the manufacturer. Consequently, there is no burden associated with this requirement.

§ 238.423 Fuel tanks.

Each type of external fuel tank must be approved by FRA’s Associate Administrator for Safety upon a showing that the fuel tank provides a level of safety at least equivalent to a fuel tank that complies with the external fuel tank requirements in § 223(a) of this part.

The burden for this requirement is included under section 238.21. Consequently, there is no additional burden associated with it.

§ 238.427 Suspension system.

Passenger equipment must meet the safety performance standards for suspension systems contained in Appendix C to this part or alternative standards providing equivalent safety if approved by FRA under the provisions of § 238.21.

The burden for this requirement is included under section 238.21. Consequently, there is no additional burden associated with it.

Each truck must be equipped with a permanently installed lateral accelerometer mounted on the truck frame. The accelerometer output signals shall be processed through a filter having a band pass of .5 to 10 Hz to determine if hunting oscillations of the truck are occurring. If hunting oscillations are detected, the train monitoring system must provide an alarm to the operator, and the train must be slowed to a speed at least 5 mph less than the speed at which the hunting oscillations stopped.

This burden for requirement is included as part of automated monitoring under § 238.445. Consequently, there is no additional burden associated with it.

§ 238.431 Brake system.

The brake system shall be designed to prevent thermal damage to wheels and brake discs. The operating railroad must demonstrate through analysis and testing that no thermal damage results to the wheels or brake discs under conditions resulting in maximum braking effort being exerted on the wheels or discs.

The analysis and testing has already been done, and was accounted for in the previous submission. Consequently, there is no burden associated with this requirement.

An independent failure-detection system shall compare brake commands with brake system output to determine if a failure has occurred. The failure detection system must report brake system failures to the automated train monitoring system.

This burden for provision is included as part of automated monitoring under § 238.445. Consequently, there is no additional burden associated with this requirement.

Passenger equipment must be equipped with an adhesion control system designed automatically to adjust the braking force on each wheel to prevent sliding during braking. In the event of a failure of this system to prevent wheel slide within preset parameters, a wheel slide alarm that is visual or audible, or both, must alert the train operator in the cab of the controlling power car to wheel-slide conditions on any axle of the train.

This burden for provision is included as part of automated monitoring under § 238.445. Consequently, there is no additional burden associated with this requirement.

238.437 Emergency communication.

A means of emergency communication throughout a train must be provided and must include the following: (a) Except as further specified, transmission locations at each end of each passenger car, adjacent to the car's end doors, and accessible to both passengers and crew members without requiring the use of a tool or other implement. If the passenger car does not exceed 45 feet in length or if the passenger car was ordered prior to May 12, 1999, only one transmission location is required; (b) Transmission locations that are clearly marked with luminescent material; (c) Clear and understandable operating instructions at or near each emergency transmission location; and (d) Back-up power for a minimum time period of 90 minutes.

The marking and instructions mandated by this requirement have already been fulfilled and were accounted for in the previous submission. Moreover, FRA expects that no Tier II equipment will be purchased in the next five years. Consequently, there is no burden

associated with this requirement.

§ 238.441 Emergency roof entrance location.

Each passenger car and power car cab must have a minimum of one roof hatch emergency entrance location with a minimum opening of 18 inches by 24 inches, or at least one clearly marked structural weak point in the roof having a minimum opening of the same dimensions to provide quick access for properly equipped emergency personnel.

The marking mandated by this requirement has already been fulfilled and was accounted for in the previous submission. Moreover, FRA expects that no Tier II equipment will be purchased in the next five years. Consequently, there is no burden associated with this requirement.

§ 238.445 Automated Monitoring.

(A) Each passenger train must be equipped to monitor the performance of the following systems or components: (1) Reception of cab signals and train control signals; (2) Truck hunting; (3) Dynamic brake status; (4) Friction brake status; (5) Fire detection systems; (6) Head end power status; (7) Alerter or deadman control; (8) Horn and bell; (9) Wheel slide; (10) Tilt system, if so equipped; and (11) on-board bearing-temperature sensors, if so equipped. When any such system or component is operating outside of its predetermined safety parameters, the train operator must be alerted; and (2) immediate corrective action must be taken, if the system or component defect impairs the train operator's ability to safely operate the train. Immediate corrective action includes limiting the speed of the train.

This requirement pertains to Amtrak, and involves approximately 20 Acela train sets. FRA estimates that approximately 500 alarms (visual or audible) will be communicated annually per train set, or a total of 10,000 alarms/alerts to the train operators under this requirement. It is estimated that it will take approximately 10 seconds for each alert/alarm to reach the train operator that a component is functioning outside its preset safety parameters and for that operator to get through the various screens, and take the immediate necessary corrective action. Total annual burden for this requirement is 28 hours.

Respondent Universe:	1 railroad (Amtrak)
Burden time per response:	10 seconds
Frequency of Response:	On occasion
Annual number of Responses:	10,000 alerts/alarms
Annual Burden:	28 hours

Calculation: 10,000 alerts x 10 sec. = 28 hours

(B) The monitoring system must be designed with an automatic self-test feature that notifies the train operator that the monitoring capability is functioning correctly and alerts the train operator when a system failure occurs.

This requirement also pertains to Amtrak, and again involves approximately 20 Acela train sets. FRA estimates that the self-test feature will take place approximately three (3) times a day for each train set every day of the year. FRA estimates then that approximately 21,900 notifications (visual or audible) will be communicated to train operators under this requirement. It is estimated that it will take approximately 20 seconds for each notification. Total annual burden for this requirement is 122 hours.

Respondent Universe:	1 railroad (Amtrak)
Burden time per response:	20 seconds
Frequency of Response:	On occasion
Annual number of Responses:	21,900 notifications
Annual Burden:	122 hours

Calculation: 21,900 notifications x 20 sec. = 122 hours

Total annual burden for this entire requirement is 150 hours (28 +122).

§ 238.447 Train operator’s controls and power car cab layout

Power car cab information displays must be designed with the following characteristics: (1) Simplicity and standardization must be the driving criteria for design of formats for the display of information in the cab; (2) Essential, safety-critical information must be displayed as a default condition; (3) Operator selection shall be required to display other than default information; (4) Cab or train control signals must be displayed for the operator; and (5) Displays must be readable from the operators's normal position under all lighting conditions.

This is done by the car manufacturer during the construction process. This is the usual and customary procedure. Consequently, there is no additional paperwork burden associated with this requirement.

Subpart F - Inspection, Testing, and Maintenance Requirements for Tier II Passenger Equipment.

§ 238.503 Inspection, testing, and maintenance requirements.

§ 238.505 Program Approval Procedures.

(a) General. Under the procedures provided in § 238.505, each railroad must obtain FRA approval of a written inspection, testing, and maintenance program for Tier II passenger equipment prior to implementation of that program and prior to commencing passenger operations using that equipment. As further specified in this section, the program must describe in detail the procedures, equipment, and other means necessary for the safe operation of the passenger equipment, including:

- (1) Safety inspection procedures, intervals, and criteria;
- (2) Testing procedures and intervals;
- (3) Scheduled preventive-maintenance intervals;
- (4) Maintenance procedures;
- (5) Special testing equipment or measuring devices required to perform safety inspections, tests and maintenance; and
- (6) The training, qualification, and designation of employees and contractors to perform safety inspections, tests, and maintenance.

(b) Compliance. After the railroad's inspection, testing, and maintenance program is approved by FRA under § 238.505, the railroad must adopt the program and must perform--

- (1) The inspections and tests of power brakes and other primary brakes as described in the program;
- (2) The other inspections and tests described in the program in accordance with the procedures and criteria that the railroad identified as safety-critical; and
- (3) The maintenance tasks described in the program in accordance with the procedures and intervals that the railroad identified as safety-critical.

(c) General safety inspection, testing, and maintenance procedures. The inspection, testing, and maintenance program under paragraph (a) of this section must contain the railroad's written procedures to ensure that all systems and components of in service equipment are free of any general condition that endangers the safety of the crew, passengers, or equipment. These procedures must protect against:

- (1) A continuous accumulation of oil or grease;
- (2) Improper functioning of a component;
- (3) A crack, break, excessive wear, structural defect, or weakness of a component;
- (4) A leak;
- (5) Use of a component or system under a condition that exceeds that for which the component or system is designed to operate; and
- (6) Insecure attachment of a component.

(d) Specific inspections. The program under paragraph (a) of this section must specify that all Tier II passenger equipment must receive thorough safety inspections in accordance with the following standards:

(1) Except as provided in paragraph (d)(3) of this section, the equivalent of a Class I brake test contained in § 238.313 must be conducted prior to a train's departure from an originating terminal and every 1,500 miles or once each calendar day, whichever comes first, that the train remains in continuous service.

(i) Class I equivalent brake tests must be performed by qualified maintenance persons.

(ii) Except as provided in § 238.15(b), a railroad must not use or haul a Tier II passenger train in passenger service from a location where a Class I equivalent brake test has been performed, or was required by this part to have been performed, with less than 100 percent operative brakes.

(2) Except as provided in paragraph (d)(3) of this section, a complete safety exterior and interior mechanical inspection, in accordance with the railroad's inspection program, must be conducted by a qualified maintenance person at least once during each calendar day the equipment is used in service.

(3) Trains that miss a scheduled Class I brake test or mechanical inspection due to a delay en route may proceed to the point where the Class I brake test or mechanical inspection was scheduled to be performed.

(g) Maintenance intervals. The program under paragraph (a) of this section must include the railroad's initial scheduled maintenance intervals for Tier II equipment based on an analysis completed pursuant to the railroad's safety plan. The maintenance interval of a safety-critical component shall be changed only when justified by accumulated, verifiable

operating data and approved by FRA under § 238.505 before the change takes effect.

(h) Training, qualification, and designation program. The program under paragraph (a) of this section must describe the training, qualification, and designation program, as defined in the training program plan under § 238.109, established by the railroad to qualify individuals to inspect, test, and maintain the equipment.

(1) If the railroad deems it safety-critical, then only qualified individuals shall inspect, test, and maintain the equipment.

(2) Knowledge of the procedures described in paragraph (a) of this section shall be required to qualify an employee or contractor to perform an inspection, testing, or maintenance task under this part.

(i) Standard procedures. The program under paragraph (a) of this section shall include the railroad's written standard procedures for performing all safety-critical equipment inspection, testing, maintenance, and repair tasks necessary to ensure the safe and proper operation of the equipment. The inspection, testing, and maintenance program required by this section is not intended to address and should not include procedures to address employee working conditions that arise in the course of conducting the inspections, tests, and maintenance set forth in the program. When reviewing the railroad's program, FRA does not intend to review any portion of the plan that relates to employee working conditions.

(j) Annual Review. The inspection, testing, and maintenance program required by this section must be reviewed by the railroad annually.

(k) Quality control program. Each railroad must establish an inspection, testing, and maintenance quality control program enforced by railroad or contractor supervisors to reasonably ensure that inspections, tests, and maintenance are performed in accordance with Federal safety standards and the procedures established by the railroad.

(l) Identification of safety-critical items. In the program under paragraph (a) of this section, the railroad must identify all inspection and testing procedures and criteria as well as all maintenance intervals that the railroad deems to be safety-critical.

Submission.

Not less than 90 days prior to commencing passenger operations using Tier II passenger equipment, each railroad to which this subpart applies must submit for approval an inspection, testing, and maintenance program for that equipment meeting the requirements of this subpart to the Associate Administrator for Safety, Federal Railroad Administration, 1200 New Jersey Ave., S.E., Mail Stop 25, Washington, D.C. 20590.

This requirement pertains to Amtrak. FRA estimates that Amtrak will have to re-submit an updated plan under this requirement. It is estimated that it will take approximately 1,200 hours to develop and submit the required program/plan. Total annual burden for this requirement is 1,200 hours.

Respondent Universe:	1 railroad (Amtrak)
Burden time per response:	1,200 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 program/plan
Annual Burden:	1,200 hours

Calculation: 1 program/plan x 1,200 hrs. = 1,200 hours

Amendments.

If a railroad seeks to amend an approved program, the railroad must file with FRA's Associate Administrator for Safety a petition for approval of such amendment not less than 60 days prior to the proposed effective date of the amendment. A program responsive to the requirements of this subpart or any amendment to the program must not be implemented prior to FRA approval.

- (1) Each program or amendment under § 238.503 must contain:
 - (i) The information prescribed in § 238.503 for such program or amendment;
 - (ii) The name, title, address, and telephone number of the primary person to be contacted with regard to review of the program or amendment; and
 - (iii) A statement affirming that the railroad has served a copy of the program or amendment on designated representatives of railroad employees, together with a list of the names and addresses of persons served.
- (2) Each railroad must serve a copy of each submission to FRA on designated representatives of railroad employees responsible for the equipment's operation, inspection, testing, and maintenance under this subpart.

No amendments have been requested, and FRA does not anticipate receiving any in the near future. Consequently, there is no burden associated with this requirement.

Comment. Not later than 45 days from the date of filing the program or amendment, any person may comment on the program or amendment.

- (1) Each comment must set forth specifically the basis upon which it is made, and contain a concise statement of the interest of the commenter in the proceeding.
- (2) Three copies of each comment must be submitted to the Associate Administrator for Safety, Federal Railroad Administration, 1200 New Jersey Ave., S.E., Mail Stop 25, Washington, DC 20590.
- (3) The commenter must certify that a copy of the comment was served on the railroad.

FRA estimates that it will receive approximately three comments regarding the Amtrak plan (from rail labor unions) under the above requirement. It is estimated that each comment will take approximately three (3) hours to complete and send to FRA. Total annual burden for this requirement is nine (9) hours.

Respondent Universe:	Interested Rail Parties/RR Industry
Burden time per response:	3 hours
Frequency of Response:	On occasion
Annual number of Responses:	3 comments
Annual Burden:	9 hours

Calculation: 3 comments x 3 hrs. = 9 hours

Approval - Within 60 days of receipt of each initial inspection, testing, and maintenance program, FRA will conduct a formal review of the program. FRA will then notify the primary railroad contact person and the designated employee representatives in writing whether the inspection, testing, and maintenance program is approved and, if not approved, the specific points in which the program is deficient. If a program is not approved by FRA, the railroad must amend its program to correct all deficiencies and resubmit its program with the required revisions not later than 45 days prior to commencing passenger operations.

FRA will review each proposed amendment to the program within 45 days of receipt. FRA will then notify the primary railroad contact person and the designated employee representatives in writing whether the proposed amendment has been approved by FRA and, if not approved, the specific points in which the proposed amendment is deficient. The railroad must correct any deficiencies and file the corrected amendment prior to implementing the amendment. Following initial approval of a program or amendment, FRA may reopen consideration of the program or amendment for cause stated.

Since FRA does not anticipate any submissions or amendments, no approvals will be necessary for initial approval of a program or an amendment. Consequently, there is no burden associated with this information collection requirement.

Total annual burden for this entire requirement is 1,209 hours (1,200 + 9).

Subpart G - Specific Safety Planning Requirements for Tier II Passenger Equipment

§ 238.603 Safety planning requirements.

(a) Prior to commencing revenue service operation of Tier II passenger equipment, each railroad must prepare and execute a written plan for the safe operation of such equipment. The plan may be combined with any other plan required under this part. The plan must be updated at least every 365 days. At a minimum, the plan must describe the approaches and processes to: (1) Identify all requirements necessary for the safe operation of the equipment in its operating environment; (2) Identify all known or potential hazards to the safe operation of the equipment; (3) Eliminate or reduce the risk posed by each hazard identified to an acceptable level using a formal safety methodology such as MIL-STD-882; and (4) Impose operational limitations, as necessary, on the operation of the equipment if the equipment cannot meet safety requirements.

This requirement has already been completed. Consequently, there is no burden associated with this section.

(b) For the procurement of Tier II passenger equipment, and for each major upgrade or introduction of new technology in existing Tier II passenger equipment that affects a safety system on such equipment, each railroad must prepare and execute a written safety plan. The plan may be combined with any other plan required under this part. The plan must describe the approaches and processes to: (1) Identify all safety requirements governing the design of the passenger equipment and its supporting systems; (2) Evaluate the total system, including hardware, software, testing, and support activities, to identify known or potential safety hazards over the life cycle of the equipment; (3) Identify safety issues during design reviews; (4) Eliminate or reduce the risk posed by each hazard identified to an acceptable level using a formal safety methodology such as MIL-STD-882; (5) Monitor the progress in resolving safety issues, reducing hazards, and meeting safety requirements; (6) Develop a program of testing or analysis, or both, to demonstrate that safety requirements have been met; and (7) Impose operational limitations, as necessary, on the operation of the equipment if the equipment cannot meet safety requirements.

Since FRA does not expect upgrades or new procurement in the near future, there would be no need to prepare and execute a written safety plan. Consequently, there is no

burden associated with this information collection requirement.

(c) Each railroad must maintain sufficient documentation to demonstrate how the operation and design of its Tier II passenger equipment complies with safety requirements or, as appropriate, addresses safety requirements under paragraphs (a)(4) and (b)(7) of this section. Each railroad must maintain sufficient documentation to track how safety issues are raised and resolved.

This requirement has already been completed. Consequently, there is no burden associated with this section.

(d) Each railroad must make available to FRA for inspection and copying upon request each safety plan required by this section and any documentation required pursuant to such plan.

This requirement has already been completed. Consequently, there is no burden associated with this section.

§ 238.701 Scope. **(New Requirements)**

This subpart contains specific requirements for railroad passenger equipment operating in a shared right-of-way at speeds not exceeding 125 mph and in an exclusive right-of-way without grade crossings at speeds exceeding 125 mph but not exceeding 220 mph. Passenger seating is permitted in the leading unit of a Tier III trainset, if safety issues associated with passengers occupying the leading unit are addressed and mitigated through a comprehensive Safe Operation Plan for Tier III Passenger Equipment. Demonstration of compliance with the requirements of this subpart is subject to FRA review and approval in accordance with § 238.111.

The burden for this requirement is included under that of § 238.721 below. Consequently, there is no additional burden associated with it.

§ 238.703 Quasi-static compression load requirements. **(New Requirements)**

(a) General. To demonstrate resistance to loss of occupied volume, Tier III trainsets shall comply with both the quasi-static compression load requirements in paragraph (b) of this section and the dynamic collision requirements in § 238.705.

(b) Quasi-static compression load requirements.

(1) Each vehicle in a Tier III trainset shall resist a minimum quasi-static end load applied on the collision load path of:

(i) 800,000 pounds without permanent deformation of the occupied volume or

(ii) 1,000,000 pounds without exceeding either of the following two conditions:

(A) Local plastic strains no greater than 5 percent; and

(B) Vehicle shortening no greater than 1 percent over any 15-foot length of the occupied volume; or

(iii) 1,200,000 pounds without crippling the body structure. Crippling of the body structure is defined as reaching the maximum point on the load-versus-displacement characteristic.

(2) To demonstrate compliance with this section, each type of vehicle shall be subjected to an end compression load (buff) test with an end load magnitude no less than 337,000 lbf (1500 kN).

(3) Compliance with the requirements of paragraph (b) of this section shall be documented and submitted to FRA for review and approval.

FRA estimates that approximately one (1) document/analysis of Tier III trainsets showing compliance with both the quasi-static compression load requirements in paragraph (b) of this section will be submitted under the above requirement. It is estimated that it will take approximately 40 hours to do the necessary testing, complete each document/ analysis, and submit it to FRA. Total annual burden for this information collection requirement is 40 hours.

Respondent Universe:	2 railroads
Burden time per response:	40 hours
Frequency of Response:	On occasion
First year number of Responses:	1 compliance test/document/ analysis
First year Burden:	40 hours

Calculation: 1 compliance test/document/analysis x 40 hrs. = 40 hours

§ 238.705 Dynamic collision scenario. (New Requirements)

(a) General. In addition to the requirements of § 238.703, occupied volume integrity (OVI) shall also be demonstrated for each individual vehicle in a Tier III trainset through an evaluation of a dynamic collision scenario in which a moving train impacts a standing train under the following conditions:

- (1) The initially-moving train is made up of the equipment undergoing evaluation at its AW0 ready-to-run weight;
- (2) If trains of varying consist lengths are intended for use in service, then the shortest and longest consist lengths shall be evaluated;
- (3) If the initially-moving train is intended for use in push-pull service, then, as applicable, both the configurations as led by a locomotive and as led by a cab car shall be evaluated separately;
- (4) The initially-standing train is led by a rigid (conventional) locomotive and also made up of five identical passenger coaches having the following characteristics:
 - (i) The locomotive weighs 260,000 pounds and each coach weighs 95,000 pounds;
 - (ii) The locomotive and each passenger coach crush in response to applied force as specified in Table 1 to this section; and
 - (iii) The locomotive shall be modeled using the data inputs listed in appendix H to this part so that it has a geometric design as depicted in Figure 1 to appendix H to this part;
- (5) The scenario shall be evaluated on tangent, level track;
- (6) The initially-moving train shall have an initial velocity of 20 mph if the consist is led by a cab car or MU locomotive, or an initial velocity of 25 mph if the consist is led by a conventional locomotive;
- (7) The coupler knuckles on the colliding equipment shall be closed and centered;
- (8) The initially-moving and initially-standing train consists are not braked;
- (9) The initially-standing train has only one degree-of-freedom (longitudinal displacement); and
- (10) The model used to demonstrate compliance with the dynamic collision requirements must be validated. Model validation shall be documented and submitted to FRA for review and approval.

FRA estimates that approximately one (1) validation document/analysis for models of each vehicle of Tier III trainsets will be completed under the above requirement. It is estimated that it will take approximately 40 hours to do the necessary validation testing, complete each document/analysis, and submit it to FRA. Total annual burden for this information collection requirement is 40 hours.

Respondent Universe:	2 railroads
Burden time per response:	40 hours
Frequency of Response:	On occasion
First year number of Responses:	1 model validation documents/analysis
First year Burden:	40 hours

Calculation: 1 model validation documents/analysis x 40 hrs. = 40 hours

(b) Dynamic collision requirements. As a result of the impact described in paragraph (a) of this section—

(1) One of the following two conditions must be met for the occupied volume of the initially-moving train:

(i) There shall be no more than 10 inches of longitudinal permanent deformation; or

(ii) Global vehicle shortening shall not exceed 1 percent over any 15-foot length of occupied volume.

(2) If Railway Group Standard GM/RT2100, Issue Four, “Requirements for Rail Vehicle Structures,” Rail Safety and Standards Board Ltd., December 2010, is used to demonstrate compliance with any of the requirements in §§ 238.733, 238.735, 238.737, or 238.743, then the average longitudinal deceleration of the center of gravity (CG) of each vehicle in the initially-moving train during the dynamic collision scenario shall not exceed 5g during any 100-millisecond (ms) time period.

(3) Compliance with each of the following conditions shall also be demonstrated for the cab of the initially-moving train after the impact:

(i) For each seat provided for an employee in the cab, and any floor-mounted seat in the cab, a survival space shall be maintained where there is no intrusion for a minimum of 12 inches from each edge of the seat. Walls or other items originally within this defined space, not including the operating console, shall not further intrude more than 1.5 inches towards the seat under evaluation;

(ii) There shall be a clear exit path for the occupants of the cab;

(iii) The vertical height of the cab (floor to ceiling) shall not be reduced by more than 20 percent; and

(iv) The operating console shall not have moved closer to the engineer's seat by more than 2 inches; if the engineer's seat is part of a set of adjacent seats, the requirements of this paragraph apply to both seats.

The burden for this requirement is included under that of § 238.705(a) above.

Consequently, there no additional burden associated with this requirement.

Total annual burden for this entire information collection requirement is 40 hours.

§ 238.707 Override protection. (New Requirements)

(a) Colliding equipment.

(1) Using the dynamic collision scenario described in § 238.705(a), anti-climbing performance shall be evaluated for each of the following sets of initial conditions:

(i) All vehicles in the initially-moving and initially-standing train consists are positioned at their nominal running heights; and

(ii) The lead vehicle of the initially-moving train shall be perturbed laterally and vertically by 3 inches at the colliding interface.

(2) For each set of initial conditions specified in paragraph (a)(1) of this section, compliance with the following conditions shall be demonstrated after a dynamic impact:

(i) The relative difference in elevation between the underframes of the colliding equipment in the initially-moving and initially-standing train consists shall not change by more than 4 inches; and

(ii) The tread of any wheel of the first vehicle of the initially-moving train shall not rise above the top of the rail by more than 4 inches

(b) Connected equipment override.

(1) Using the dynamic collision scenario described in § 238.705(a), anti-climbing performance shall be evaluated for each of the following sets of initial conditions:

(i) All vehicles in the initially-moving and initially-standing train consists are positioned at their nominal running heights; and

(ii) One vehicle is perturbed laterally and vertically by 2 inches, relative to the adjacent vehicle, at the first vehicle-to-vehicle interface in the initially-moving train.

(2) For each set of initial conditions specified in paragraph (b)(1) of this section, compliance with the following conditions shall be demonstrated after a dynamic impact:

(i) The relative difference in elevation between the underframes of the connected equipment in the initially-moving train shall not change by more than 4 inches; and

(ii) The tread of any wheel of the initially-moving train shall not rise above the top of the rail by more than 4 inches.

FRA estimates that approximately one (1) anti-climbing performance evaluation/test/analysis will be conducted each year of all vehicles in the initially-moving and initially-standing train consists under the above requirement. It is estimated that it will take approximately 40 hours to do the necessary evaluation/test, and complete the corresponding record. Total annual burden for this information collection requirement is 320 hours.

Respondent Universe:	2 railroads
Burden time per response:	40 hours
Frequency of Response:	On occasion
First year number of Responses:	1 anti-climbing performance test/ analysis
First year Burden:	40 hours

Calculation: 1 anti-climbing performance tests analysis x 40 hrs. = 40 hours

Total annual burden for this entire information collection requirement is 40 hours.

§ 238.709 Fluid entry inhibition. (New Requirements)

(a) The skin covering the forward-facing end of a Tier III trainset shall be—

(1) Equivalent to a ½-inch steel plate with yield strength of 25,000 pounds per square inch. Material of higher yield strength may be used to decrease the required thickness of the material provided at least an equivalent level of strength is maintained. The sum of the thicknesses of elements (e.g., skin and structural elements) from the structural leading edge of the trainset to a point, when projected onto a vertical plane, just forward of the engineer's normal operating position, may also be used to satisfy this requirement;

(2) Designed to inhibit the entry of fluids into the cab; and

(3) Affixed to the collision posts or other main structural members of the forward end structure so as to add to the strength of the end structure.

(b) Information used to demonstrate compliance with the requirements of this section shall at a minimum include a list and drawings of the structural elements considered in satisfying the requirement of this section, and calculations showing that the thickness-strength requirement is satisfied.

FRA estimates approximately one (1) document/analysis demonstrating compliance with the requirements of this section will be sent to FRA. It is estimated that it will take approximately 20 hours to complete the specified list and drawings, perform the necessary thickness-strength requirements, and send the associated documents to FRA. Total annual burden for this information collection requirement is 20 hours.

Respondent Universe:	2 railroads
Burden time per response:	20 hours
Frequency of Response:	On occasion
First year number of Responses:	1 compliance document/analysis
First year Burden:	20 hours

Calculation: 1 compliance document/analysis x 20 hrs. = 20 hours

§ 238.721 Glazing. (New Requirements)

(a) General. Glazing safety issues associated with operating in a Tier III environment shall be identified and addressed through a comprehensive analysis in the railroad's Safe Operation Plan for Tier III Passenger Equipment that considers right-of-way access control, intrusion detection, and safety devices to contain thrown or dropped objects.

FRA estimates that approximately one (1) Safe Operation Plan for Tier III passenger equipment, which includes a comprehensive analysis, will be developed and submitted to FRA by railroads under the above requirement. It is estimated that it will take approximately 480 hours to develop each plan, and send it to FRA. Total annual burden for this information collection requirement is 480 hours.

Respondent Universe:	2 railroads
Burden time per response:	480 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 RR Safe Operation Plan with comprehensive analysis
Annual Burden:	480 hours

Calculation: 1 RR Safe Operation Plan with comprehensive analysis x 480 hrs. = 480 hours

(b) Cab glazing; end-facing. (1) Each end-facing exterior window in a cab of a Tier III trainset shall comply with the requirements for Type I glazing contained in appendix A to part 223 of this chapter, except as provided in paragraphs (b)(2) through (4) of this section.

(2) Instead of the large object impact test specified in appendix A to part 223, each end-facing exterior window in a cab shall demonstrate compliance with the following requirements of this paragraph:

(i) The glazing article shall be impacted with a cylindrical projectile that complies with the following design specifications as depicted in Figure 1 to this subpart:

(A) The projectile shall be constructed of aluminum alloy such as ISO 6362-2:1990, grade 2017A, or its demonstrated equivalent;

(B) The projectile end cap shall be made of steel;

(C) The projectile assembly shall weigh 2.2 lbs (-0, +0.044 lbs) or 1 kilogram (kg) (-0, +0.020 kg) and shall have a hemispherical tip. Material may be removed from the interior of the aluminum portion to adjust the projectile mass according to the prescribed tolerance. The hemispherical tip shall have a milled surface with 0.04 inch (1 mm) grooves; and

(D) The projectile shall have an overall diameter of 3.7 inches (94 mm) with a nominal internal diameter of 2.76 inches (70 mm).

(ii) The test of the glazing article shall be deemed satisfactory if the test projectile does not penetrate the windscreen, the windscreen remains in its frame, and the witness plate is not marked by spall.

(iii) A new projectile shall be used for each test.

(iv) The glazing article to be tested shall be that which has the smallest area for each design type. For the test, the glazing article shall be fixed in a frame of the same construction as that mounted on the vehicle.

(v) A minimum of four tests shall be conducted and all must be deemed satisfactory. Two tests shall be conducted with the complete glazing article at $32^{\circ}\text{F} \pm 9^{\circ}\text{F}$ ($0^{\circ}\text{C} \pm 5^{\circ}\text{C}$) and two tests shall be conducted with the complete glazing article at $68^{\circ}\text{F} \pm 9^{\circ}\text{F}$ ($20^{\circ}\text{C} \pm 5^{\circ}\text{C}$). For the tests to be valid, they shall demonstrate that the core temperature of the complete glazing article during each test is within the required temperature range.

(vii) The test glazing article shall be mounted at the same angle relative to the projectile path as it will be to the direction of travel when mounted on the vehicle.

(vii) The projectile's impact velocity shall equal the maximum operating speed of the Tier III trainset plus 100 mph (160 km/h). The projectile velocity shall be measured within 13 feet (4 m) of the point of impact.

(viii) The point of impact shall be at the geometrical center of the glazing article.

(3) Representative samples for large object impact testing of large Tier III end-facing cab glazing articles may be used instead of the actual design size provided that the following conditions are met:

(i) Testing of glazing articles having dimensions greater than 39.4 by 27.6 inches (1,000 mm by 700 mm), excluding framing, may be performed using a flat sample having the same composition as the glazing article for which compliance is to be demonstrated. The glazing manufacturer shall provide documentation containing its technical justification that testing a flat sample is sufficient to verify compliance of the glazing article with the requirements of this paragraph.

(ii) Flat sample testing is permitted only when no surface of the full size glazing article contains curvature whose radius is less than 98 inches (2,500 mm), and when a complete, finished, glazing article is laid (convex side uppermost) on a flat horizontal surface, the distance, (measured perpendicularly to the flat surface) between the flat surface and the inside face of the glazing article is not greater than 8 inches (200 mm).

FRA estimates that approximately one (1) end-facing document/analysis for exterior windows of Tier III trainsets will be completed under the above certification requirement. A minimum of four tests must be conducted and deemed satisfactory. It is estimated that it will take approximately 60 hours to conduct the necessary testing and to produce the testing verification data (i.e., logs and documentation/analysis). Total annual burden for this requirement is 60 hours.

Respondent Universe:	5 glass manufacturers
Burden time per response:	60 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 data document/analysis
Annual Burden:	60 hours

Calculation: 1 data document/analysis x 60 hrs. = 60 hours

(4) End-facing glazing shall demonstrate sufficient resistance to spalling, as verified by the large impact projectile test under the following conditions:

(i) An annealed aluminum witness plate of maximum thickness 0.006 inches (0.15 mm) and of dimension 19.7 by 19.7 inches (500 mm by 500 mm) is placed vertically behind the sample under test, at a horizontal distance of 500 mm from the point of impact in the direction of travel of the projectile or the distance between the point of impact of the projectile and the location of the engineer's eyes in the engineer's normal operating position, whichever is less. The center of the witness plate is aligned with the point of impact.

(ii) Spalling performance shall be deemed satisfactory if the aluminum witness plate is not marked.

(iii) For the purposes of this part, materials used specifically to protect the cab occupants from spall (i.e., spall shields) shall not be required to meet the flammability and smoke emission performance requirements of appendix B to this part.

(5) Each end-facing exterior window in a cab shall provide ballistic penetration resistance sufficient to protect cab occupants from risks and hazards identified by the railroad as part of its Safe Operation Plan for Tier III Equipment. This protection shall, at a minimum, meet the requirements of part 223, appendix A.

(6) Tests performed on glazing materials for demonstration of compliance with this section shall be certified by either:

(i) An independent third-party (laboratory, facility, underwriter); or

(ii) The glazing manufacturer, by providing FRA the opportunity to witness all tests by written notice at least 30 days prior to testing.

FRA estimates that approximately one (1) written notice will be sent by glazing manufacturers to FRA inviting agency representatives to witness all tests under the above requirement. It is estimated that it will take approximately 30 minutes to complete each written notice. Total annual burden for this requirement is one (1) hour.

Respondent Universe:	5 glass manufacturers
Burden time per response:	30 minutes
Frequency of Response:	On occasion
Annual number of Responses:	1 written notice
Annual Burden:	1 hour

Calculation: 1 written notices x 30 min. = 1 hour

(7) Any glazing material certified to meet the requirements of this section shall be re-certified by the same means (as originally certified) if any changes are made to the glazing that may affect its mechanical properties or its mounting arrangement on the vehicle.

(8) All certification/re-certification documentation shall be made available to FRA upon request.

FRA estimates that approximately one (1) re-certification will be completed under the above requirement. However, this is done automatically and instantly at the time of manufacturing. Consequently, there is no burden associated with it.

(9) Each end-facing exterior window in a cab shall be permanently marked, before installation, in such a manner that the marking is clearly visible after the material has been installed. The marking shall include:

(i) The words “FRA TYPE IHS” to indicate that the material has successfully passed the testing requirements specified in this paragraph (b);

(iii) The name of the manufacturer; and

(iv) The type or brand identification of the material.

FRA estimates that approximately 120 end-facing exterior windows of Tier III trainsets will be marked under the above requirement. It is estimated that it will take approximately two (2) minutes to mark each piece of glass. Total annual burden for this requirement is four (4) hours.

Respondent Universe:	5 glass manufacturers
Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	120 glass markings
Annual Burden:	4 hours

Calculation: 120 glass markings x 2 min. = 4 hours

(c) Cab glazing; side-facing. Each side-facing exterior window in a cab of a Tier III trainset shall—

(1) Comply with the requirements for Type II glazing contained in appendix A to part 223 of this chapter, for large-object impact; and

(2) Maintain the minimum ballistics penetration resistance as required for end-facing glazing in paragraph (b)(5) of this section.

FRA estimates that approximately one (1) side-facing document/analysis for exterior windows of Tier III cabs will be completed under the above certification requirement. It is estimated that it will take approximately 10 hours to conduct the necessary testing and to produce the testing verification data (i.e., logs and documentation/analysis). Total annual burden for this requirement is 10 hours.

Respondent Universe:	5 glass manufacturers
Burden time per response:	10 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 data document/analysis
Annual Burden:	10 hours
Calculation:	1 data document/analysis x 10 hrs. = 10 hours

Additionally, FRA estimates that approximately 240 side facing exterior windows of Tier III cab will be marked as required under Appendix A of Part 223. It is estimated that it will take approximately two (2) minutes to mark each piece of glass. Total annual burden for this requirement is eight (8) hours.

Respondent Universe:	5 glass manufacturers
Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	240 side facing exterior windows markings
Annual Burden:	8 hours
Calculation:	240 side facing exterior windows markings x 2min. = 8 hours

(d) Non-cab glazing; side-facing.

(1) Except as provided in paragraph (d)(2) of this section, each side-facing exterior window in other than a cab shall comply with the requirements for Type II glazing contained in appendix A to part 223 of this chapter.

FRA estimates that approximately one (1) document/analysis for side-facing exterior windows of Tier III non-cab cars will be completed under the above requirement. It is estimated that it will take approximately 20 hours to conduct the necessary testing and to produce the testing verification data (i.e., logs and documentation/analysis). Total annual burden for this requirement is 20 hours.

Respondent Universe:	5 glass manufacturers
Burden time per response:	20 hours

Frequency of Response:	On occasion
Annual number of Responses:	1 data documents/analyses
Annual Burden:	20 hours

Calculation: 1 data documents/analyses x 20 hrs. = 20 hours

Additionally, FRA estimates that approximately 1,200 side facing exterior windows of Tier III non-cab cars will be marked as required under Appendix A of Part 223. It is estimated that it will take approximately two (2) minutes to mark each piece of glass. Total annual burden for this requirement is 40 hours.

Respondent Universe:	5 glass manufacturers
Burden time per response:	2 minutes
Frequency of Response:	On occasion
Annual number of Responses:	1,200 non-cab car glass markings
Annual Burden:	40 hours

Calculation: 1,200 non-cab car glass markings x 2 min. = 40 hours

(2) Instead of the requirements specified in paragraph (d)(1) of this section, a side-facing exterior window intended to be breakable and serve as an emergency window exit under the railroad's Tier III Safe Operation Plan may comply with an alternative standard that provides an equivalent level of safety and is approved for use by FRA.

FRA estimates that approximately one (1) alternative standard that provides an equivalent level of safety will be developed and submitted to FRA under the above requirement. It is estimated that it will take approximately five (5) hours to alternative standard, and send it to FRA. Total annual burden for this information collection requirement is five (5) hours.

Respondent Universe:	2 railroads
Burden time per response:	5 hours
Frequency of Response:	On occasion
First year number of Responses:	1 alternative standard
Annual Burden:	5 hours

Calculation: 1 alternative standard x 5 hrs. = 5 hours

Total annual burden for this entire information collection requirement is 628 hours (480 + 60 + 1 + 4 + 10 + 8 + 20 + 40 + 5).

§ 238.731 Brake system. (New Requirements)____

(a) General. Each railroad shall demonstrate through analysis and testing the maximum safe operating speed for its Tier III trainsets that results in no thermal damage to equipment or infrastructure during normal operation of the brake system.

FRA estimates that approximately one (1) analysis/test will be completed by railroads to demonstrate the safe operating speeds for their Tier III trainsets that results in no thermal damage to equipment or infrastructure during normal operation of the brake system. It is estimated that it will take approximately 480 hours to complete the necessary analyses and tests. Total annual burden for this information collection requirement is 480 hours.

Respondent Universe:	2 railroads
Burden time per response:	480 hours
Frequency of Response:	On occasion
First year number of Responses:	1 analysis/test
Annual Burden:	480 hours

Calculation: 1 analysis/test x 480 hrs. = 480 hours

(b) Minimum performance requirement for brake system. Each Tier III trainset's brake system shall be capable of stopping the trainset from its maximum operating speed within the signal spacing existing on the track over which the trainset is operating under the worst-case adhesion conditions as defined in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for this requirement is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(c) Emergency brake system. A Tier III trainset shall be provided with an emergency brake application feature that produces an irretrievable stop. An emergency brake application shall be available at any time, and shall be initiated by either of the following:

(1) An unintentional parting of the trainset; or

(2) The train crew at locations specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for this requirement is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(d) Passenger brake alarm.

(1) A means to initiate a passenger brake alarm shall be provided at two locations in each unit of a Tier III trainset that is over 45 feet in length. When a unit of the train is 45 feet or

less in length, a means to initiate a passenger brake alarm need only be provided at one location in the unit. These locations shall be identified in the railroad's Safe Operation Plan for Tier III Passenger Equipment. The words "Passenger Brake Alarm" shall be legibly stenciled or marked on each device or on an adjacent badge plate.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

FRA estimates that approximately 40 Tier III devices/adjacent badge plates will be legibly stenciled or marked under the above requirement. It is estimated that it will take approximately 20 minutes to legibly stencil or mark each device/badge plate. Total annual burden for this information collection requirement is 13 hours.

Respondent Universe:	2 railroads
Burden time per response:	20 minutes
Frequency of Response:	On occasion
First year number of Responses:	40 stenciled or marked devices
Annual Burden:	13 hours

Calculation: 40 stenciled or marked devices x 20 min. = 13 hours

(2) All passenger brake alarms shall be installed so as to prevent accidental activation.

(3) During departure from the boarding platform, activation of the passenger brake alarm shall result in an emergency brake application.

(4) A passenger brake alarm activation that occurs after the trainset has safely cleared the boarding platform shall be acknowledged by the engineer within the time period specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment for train operation to remain under the full control of the engineer. The method used to confirm that the trainset has safely cleared the boarding platform shall be defined in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

FRA estimates that there will be zero (0) brake alarm activations and thus zero (0) acknowledgements under the above requirement. Consequently, there is no burden associated with it.

(5) If the engineer does not acknowledge the passenger brake alarm as specified in paragraph (d)(4) of this section, at a minimum, a retrievable full service brake application shall be automatically initiated until the trainset has stopped unless the engineer intervenes as described in paragraph (d)(6) of this section.

(6) To retrieve the full service brake application described in paragraph (d)(5) of this section, the engineer must acknowledge the passenger brake alarm and activate appropriate controls to issue a command for brake application as specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

Again, FRA estimates that there will be zero (0) brake alarm activations and thus zero (0) acknowledgements under the above requirement. Consequently, there is no burden associated with it.

(e) Degraded performance of blended brake system. The following requirements of this paragraph (e) apply to operation of Tier III trainsets with blended braking systems to address degraded brake system performance:

(1) Loss of power or failure of the dynamic or regenerative brake shall not result in exceeding the allowable stopping distance as defined in the railroad's Safe Operation Plan for Tier III Passenger Equipment;

(2) The available friction braking shall be adequate to stop the trainset safely under the operating conditions defined in the railroad's Safe Operation Plan for Tier III Passenger Equipment;

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(3) The operational status of the trainset brake system shall be displayed for the engineer in the operating cab; and

(4) The railroad shall demonstrate through analysis and testing the maximum speed for safely operating its Tier III trainsets using only the friction brake portion of the blended brake with no thermal damage to equipment or infrastructure.

FRA estimates that there will be zero (0) analyses and tests completed under the above requirement. Consequently, there is no burden associated with it.

(f) Main reservoir system.

(1) The main reservoirs in a Tier III trainset shall be designed and tested to meet the requirements of a recognized standard specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment, such as the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code for Unfired Pressure Vessel Section VIII, Division I (ASME Code). The working pressure shall be 150 psig (10.3 bar) and the corresponding rated temperature shall be 150°F (65°C) unless otherwise defined in the railroad's Safe Operation Plan for Tier III Passenger Equipment. Reservoirs shall be certified based on their size and volume requirements. 0

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(2) Each welded steel main reservoir shall be drilled in accordance with the requirements of a recognized standard specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment, such as paragraph UG-25(e) of Section VIII of the ASME Boiler and Pressure Vessel Code. With the drain opening located at the low point of the reservoir, one row of holes shall be drilled lengthwise on the reservoir on a line intersecting the drain opening and sloped to the drain opening.

(3) A breach of a welded steel main reservoir at any of the drilled holes described in paragraph (f)(2) of this section shall be cause for the reservoir to be condemned and withdrawn from service. Any type of welded repair to a steel main reservoir is prohibited.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(h) Main reservoir tests. Prior to initial installation, each main reservoir shall be subjected to a pneumatic or hydrostatic pressure test based on the maximum working pressure defined in paragraph (f) or (g) of this section, as appropriate, unless otherwise established by the railroad's inspection, testing, and maintenance (ITM) plan. Records of the test date, location, and pressure must be maintained by the railroad for the life of the equipment. Periodic inspection requirements for main reservoirs shall be defined in the railroad's ITM plan.

FRA estimates that approximately one (1) ITM plan will be developed by railroads under the above requirement. It is estimated that it will take approximately 480 hours to develop the ITM plan. Total annual burden for this information collection requirement is 480 hours.

Respondent Universe:	2 railroads
Burden time per response:	480 hours
Frequency of Response:	On occasion
First year number of Responses:	1 ITM plan
Annual Burden:	480 hours

Calculation: 1 ITM plan x 480 hrs. = 480 hours

FRA estimates that there will be zero (0) main reservoir pneumatic or hydrostatic pressure tests completed under the above requirement. Consequently, no records will be completed and there is no burden associated with this requirement.

(j) Brake application/release.

(1) Brake actuators shall be designed to provide brake pad and shoe clearance when the brakes are released.

(2) The minimum brake cylinder pressure shall be established to provide adequate adjustment from minimum service to full service for proper train operation. The brake cylinder pressure shall be approved as part of the design review process described in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(k) Foundation brake gear. The railroad shall specify requirements in its ITM plan for the inspection, testing, and maintenance of the foundation brake gear.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

(l) Leakage.

(1) If a Tier III trainset is equipped with a brake pipe, the leakage rates shall not exceed the limits defined in either paragraph (l)(2) of this section, or those defined in the Air Consumption Analysis included in the railroad's Safe Operation Plan for Tier III Passenger Equipment, whichever is more restrictive. The method of inspection for main reservoir pipe leakage shall be prescribed in the railroad's ITM plan.

(2) Brake pipe leakage may not exceed five (5) p.s.i. per minute; and with a full service application at maximum brake pipe pressure and with communication to the brake cylinders closed, the brakes shall remain applied for at least 5 minutes.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

(m) Slide protection and alarm.

(1) A Tier III trainset shall be equipped with an adhesion control system designed to automatically adjust the braking force on each wheel to prevent sliding during braking.

(2) A wheel-slide alarm that is visual or audible, or both, shall alert the engineer in the operating cab to wheel-slide conditions on any axle of the trainset.

(3) If this system fails to prevent wheel slide within preset parameters specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment, then operating restrictions for a trainset with slide protection devices that are not functioning as intended shall be specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(n) Monitoring and diagnostics. Each Tier III trainset shall be equipped with a monitoring and diagnostic system that is designed to automatically assess the functionality of the brake system for the entire trainset. Details of the system operation and the method of communication of brake system functionality prior to the departure of the trainset and while en route shall be described in detail in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(o) Train securement. Independent of the pneumatic brakes, Tier III equipment shall be equipped with a means of securing the equipment against unintentional movement when unattended (as defined in § 238.231(h)(4)). The railroad shall specify in its Safe Operation Plan for Tier III Passenger Equipment the procedures used to secure the equipment and

shall also demonstrate that those procedures effectively secure the equipment on all grade conditions identified by the railroad.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

Total annual burden for this entire information collection requirement is 973 hours (480 + 13 + 480).

§ 238.733 Interior fixture attachment.

(a) Tier III trainsets shall comply with the interior fixture attachment requirements referenced in either of the following paragraphs:

(1) Section § 238.233 and APTA PR-CS-S-006-98, Rev. 1, “Standard for Attachment Strength of Interior Fittings for Passenger Railroad Equipment,” Authorized September 2005.

(2) Section 6.1.4 , “Security of furniture, equipment and features,” of Railway Group Standard GM/RT2100, Issue Four, “Requirements for Rail Vehicle Structures,” Rail Safety and Standards Board Ltd., December 2010, provided that—

(i) The conditions of § 238.705(b)(2) are met;

(ii) Interior fixture attachment strength is based on a minimum of 5g longitudinal, 3g lateral, and 3g vertical acceleration resistance; and

(iii) Use of the standard is carried out in accordance with any conditions identified in the railroad’s Safe Operation Plan for Tier III Passenger Equipment, as approved by FRA.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

§ 238.735 Seat crashworthiness (passenger and cab crew).

(a) Passenger seating in Tier III trainsets shall comply with the requirements referenced in either of the following paragraphs:

(1) Section 238.233 and APTA PR-CS-S-016-99, Rev. 2, “Standard for Passenger Seats in Passenger Rail Cars,” Authorized October 2010, excluding Section 6.0, “Seat durability testing.”

(2) Section 6.2, “Seats for passengers, personnel, or train crew,” of Railway Group Standard GM/RT2100, Issue Four, “Requirements for Rail Vehicle Structures,” Rail Safety and Standards Board Ltd., December 2010, provided that—

(i) The conditions of 238.705(b)(2) are met;

(ii) Seat attachment strength is based on a minimum of 5g longitudinal, 3g lateral, and 3g vertical acceleration resistance; and

(iii) Use of the standard is carried out under any conditions identified in the railroad’s Safe Operation Plan for Tier III Passenger Equipment, as approved by FRA.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

§ 238.737 Luggage racks.

(a) Overhead storage racks shall provide longitudinal and lateral restraint for stowed articles. These racks shall incorporate transverse dividers at a maximum spacing of 10 ft. (3 m) to restrain the longitudinal movement of luggage. To restrain the lateral movement of luggage, these racks shall also slope downward in the outboard direction at a minimum ratio of 1:8 with respect to a horizontal plane.

(b) Luggage racks shall comply with the requirements referenced in either of the following paragraphs:

(1) Section 238.233; or

(2) Section 6.8, “Luggage stowage,” of Railway Group Standard GM/RT2100, Issue Four, “Requirements for Rail Vehicle Structures,” Rail Safety and Standards Board Ltd., December 2010, provided that—

(i) The conditions of 238.705(b)(2) are met;

(ii) Attachment strength is based on a minimum of 5g longitudinal, 3g lateral, and 3g vertical acceleration resistance; and

(iii) Use of the standard is carried out under any conditions identified in the railroad’s Safe Operation Plan for Tier III Passenger Equipment, as approved by FRA. In particular, the railroad shall determine the maximum allowable weight of the luggage stowed for purposes of evaluating luggage rack attachment strength.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

§ 238.741 Emergency window egress and rescue access.

(a) Emergency window egress and rescue access plan. If a passenger car in a Tier III trainset is not designed to comply with the requirements in §§ 238.113 or 238.114, the railroad shall submit to FRA for approval an emergency window egress and rescue access plan during the design review stage. The plan must include, but is not limited to, the elements in this section.

(b) Ease of operability. If an emergency window exit in a passenger car requires the use of a tool, other implement (e.g., hammer), or a mechanism to permit removal of the window panel from the inside of the car during an emergency situation, then the plan must demonstrate that the use of such a device provides for a level of safety equivalent to that provided by § 238.113(b). In particular, the plan must address the location, design, and signage and instructions for the device. The railroad shall also include a provision in its Tier III ITM plan to inspect for the presence of the device at least each day the car is in service. *(Note: The burden for ITM plans is included under that of § 238.731 above. Consequently, there is no additional burden associated with this requirement.)*

(c) Dimensions. If the dimensions of a window opening in a passenger car do not comply with the requirements in §§ 238.113 or 238.114, then the plan must demonstrate that at least an equivalent level of safety is provided.

(d) Alternative emergency evacuation openings. If a passenger car employs the use of emergency egress panels or additional door exits instead of emergency window exits or rescue access windows, then the plan must demonstrate that such alternative emergency evacuation openings provide for a level of safety at least equivalent to that required by § 238.113 or § 238.114, or both. The plan must address the location, design, and signage and instructions for the alternative emergency evacuation openings.

FRA estimates that approximately one (1) emergency window egress and rescue access plan will be developed and submitted by railroads to FRA under the above requirement. It is estimated that it will take approximately 60 hours to develop each emergency window egress and rescue access plan. Total annual burden for this information collection requirement is 60 hours.

Respondent Universe:	2 railroads
Burden time per response:	60 hours
Frequency of Response:	On occasion

Annual number of Responses:	1 emergency window egress and rescue access plan
Total Annual Burden:	60 hours

Calculation: 1 emergency window egress and rescue access plan x 60 hrs.
= 60 hours

§ 238.743 Emergency lighting.

(a) Except as provided in paragraph (b) of this section, Tier III trainsets shall comply with the emergency lighting requirements specified in § 238.115.

(b) Emergency lighting back-up power systems shall, at a minimum, be capable of operating after experiencing the individually applied accelerations defined in either of the following paragraphs:

(1) § 238.115(b)(4)(ii); or

(2) Section 6.1.4 , “Security of furniture, equipment and features,” of Railway Group Standard GM/RT2100, Issue Four, “Requirements for Rail Vehicle Structures,” Rail Safety and Standards Board Ltd., December 2010, provided that—

(i) The conditions of § 238.705(b)(2) are met;

(ii) Attachment strength is based on a minimum of 5g longitudinal, 3g lateral, and 3g vertical acceleration resistance; and

(iii) Use of the standard is carried out under any conditions identified in the railroad’s Safe Operation Plan for Tier III Passenger Equipment, as approved by FRA.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

FRA estimates that approximately one (1) emergency lighting test/analysis for Tier III trainsets will be completed and submitted by railroads to FRA under the above requirement. It is estimated that it will take approximately 60 hours to complete the test/analysis. Total annual burden for this information collection requirement is 60 hours.

Respondent Universe:	2 railroads
Burden time per response:	60 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 emergency lighting test/analysis

Total Annual Burden: 60 hours

Calculation: 1 emergency window egress and rescue access plan x 60 hrs.
= 60 hours

§ 238.751 Alerters.

(a) An alerter shall be provided in the operating cab of each Tier III trainset, unless in accordance with paragraph (e) of this section the trainset operates in a territory where an alternate technology providing equivalent safety, such as redundant automatic train control or redundant automatic train stop system, is installed.

(b) Upon initiation of the alerter, the engineer must acknowledge the alerter within the time period and according to the parameters specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment in order for train operation to remain under the full control of the engineer.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

Most trains do not have alerters. FRA estimates then that there will be zero (0) initiations of alerters and thus zero (0) acknowledgments made by locomotive engineers. Consequently, there is no burden associated with this requirement.

However, in light of the above, an analysis will need to be completed. FRA estimates that approximately one (1) analysis will be completed by railroads under the above requirement. It is estimated that it will take approximately 200 hours to complete the analysis. Total annual burden for this information collection requirement is 200 hours.

Respondent Universe:	30 railroads
Burden time per response:	200 hours
Frequency of Response:	On occasion
Annual number of Responses:	1 analysis
Total Annual Burden:	200 hours

Calculation: 1 analysis x 200 hrs. = 200 hours

(c) If the engineer does not acknowledge the alerter as specified in paragraph (b) of this section, at a minimum, a retrievable full service brake application shall occur until the train has stopped, unless the crew intervenes as described in paragraph (d) of this section.

(d) To retrieve the full service brake application described in paragraph (c) of this section, the engineer must acknowledge the alerter and activate appropriate controls to issue a command for brake application as specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

As noted above, most trains do not have alerters. FRA estimates then that there will be zero (0) initiations of alerters and thus zero (0) acknowledgments made by locomotive engineers. Consequently, there is no burden associated with this requirement.

(e) If an alternate technology to the alerter is used, the railroad shall conduct a hazard analysis that confirms the ability of the technology to provide an equivalent level of safety. This analysis shall be included in the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for this requirement is included under that of Safe Operation Plans for Tier III Passenger Equipment in § 238.721 above. Consequently, there is no additional burden associated with this requirement.

Total annual burden for this entire information collection requirement is 200 hours.

§ 238.753 Sanders.

(a) A Tier III trainset shall be equipped with operative sanders, if required by the railroad's Safe Operation Plan for Tier III Passenger Equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(b) Sanders required under this section shall comply with § 229.131(a), (b), and (d) of this chapter, except that instead of the requirements of §§ 229.9 and 229.23 of this chapter:

(1) The requirements of § 238.17 shall apply to the tagging and movement of a Tier III trainset with defective sanders; and

FRA estimates that there will be no Tier III trainsets in operation until 2019. As a result, this requirement will not come into play until then. Thus, there is no burden associated with this requirement.

(2) The requirements of the railroad's ITM plan shall apply to the next periodic inspection of such a trainset.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

(c) In addition to the requirements in paragraph (b) of this section, the railroad's ITM plan shall specify the ITM requirements for Tier III trainsets equipped with sanders.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

§ 238.803 Inspection, testing, and maintenance requirements; brake system.

(a) Except as provided in paragraph (b) of this section, Tier III trainsets shall be subject to the ITM requirements of subpart F of this part.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

(b)(1) The equivalent of a Class I brake test contained in § 238.313 shall be developed for use where required by this part, and shall be defined in the railroad's ITM plan.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

(2) Movement of a trainset with a power brake defect as defined in § 238.15 shall be conducted in accordance with § 238.15, with the following exceptions:

(i) The confirmation of the percentage of operative power brakes required by § 238.15(c)(4)(iv) may be by a technological method specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment;

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(ii) The computation of the percentage of operative power brakes required by § 238.15(c)(1) shall be determined by a formula specified in the railroad's Safe Operation Plan for Tier III Passenger Equipment; and

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

(iii) Operating restrictions determined by the percentage of operative power brakes in a trainset shall be based upon the requirements of § 238.15 when the trainset operates in a shared right-of-way; operating restrictions shall be based upon a percentage of operative brakes as defined in the railroad's Safe Operation Plan for Tier III Passenger Equipment when the trainset operates in a right-of-way exclusively for Tier III passenger equipment.

The burden for Safe Operation Plans for Tier III Passenger Equipment is included under that of § 238.721 above. Consequently, there is no additional burden associated with this requirement.

§ 238.805 Periodic tests; brake system.

(a) Each Tier III trainset shall be subject to the tests and inspections prescribed in the railroad's ITM plan, as approved by FRA. All testing required under this section shall be performed at the intervals specified in the ITM plan. The railroad's ITM plan shall include, but not be limited to, the following requirements:

(1) The filtering devices or dirt collectors located in the main reservoir supply line to the air brake system shall be cleaned, repaired, and replaced in accordance with the ITM plan.

(2) All brake control equipment and truck brake equipment shall be cleaned, repaired, and tested in accordance with the ITM plan.

The burden for ITM plans is included above under that of § 238.731(h). Consequently, there is no additional burden associated with this requirement.

(3) The date and place of cleaning, repairing, or testing shall be recorded in the railroad's data management system, and the person performing the work and that person's supervisor shall sign the form electronically. A record of the components of the air brake system that are cleaned, repaired, or tested shall be kept in the railroad's electronic files.

(b) Each periodic inspection shall include, but not be limited to, the following requirements:

(1) All mechanical gauges used by the engineer to aid in the control or braking of the trainset shall be tested by comparison with a dead-weight tester or a test gauge designed for this purpose. A gauge or device shall not be in error more than five percent, or three p.s.i., whichever is less.

(2) All electrical devices and visible insulation shall be inspected.

(3) All cable connections between cars and jumpers that are designed to carry 600 volts or more shall be thoroughly cleaned, inspected, and tested for continuity. A microprocessor-based self-monitoring event recorder, if installed, is exempt from periodic inspection.

FRA estimates that there will be no Tier III trainsets in operation until 2019. As a result, this requirement will not come into play until then. Thus, there is no burden associated with this requirement.

Appendix B to Part 238 --Test Methods and Performance Criteria for the Flammability and Smoke Emission Characteristics of Materials Used in Passenger Cars and Locomotive Cabs

The surface flammability and smoke emission characteristics must be demonstrated to be permanent by washing, if appropriate, according to FED-STD-191A Textile Test Method 5830. The surface flammability and smoke emission characteristics must be demonstrated to be permanent by dry-cleaning, if appropriate, according to ASTM D-2724-87. Materials that cannot be washed or dry cleaned must be so labeled and must meet the applicable performance criteria after being cleaned as recommended by the manufacturer.

Some materials lose their fire retardency when washed or dry cleaned; others do not. The buyer of such materials must be so informed by the labeling in order to know and use the proper method to clean materials in order to retain the fire retardency. This type of requirement is not inconsistent with labeling of materials such as bedding or children's sleepware which is required to be labeled as meeting certain fire retardency laws.

FRA estimates there are approximately five (5) to six (6) seat manufacturers. Under current practices, for warranty purposes, these manufacturers already provide some kind of cleaning instructions with their products stating that, if the proper cleaning methods are not followed, it will void the warranty.

This information collection requirement is a usual and customary practice. Consequently, there is no burden associated with it.

Testing of a complete seat assembly (including cushions, fabric layers, upholstery) according to ASTM E-1537-99 using the pass/fail criteria of Cal TB-133, and testing of a complete mattress assembly (including foam and ticking) according to ASTM E-1590-01

using the pass/fail criteria of Cal TB-129 shall be permitted in lieu of the test methods prescribed herein, provided the assembly component units remain unchanged or new (replacement) assembly components possess equivalent fire performance properties to the original components tested. A fire hazard analysis must also be conducted that considers the operating environment within which the seat or mattress assembly will be used in relation to the risk of vandalism, puncture, cutting, or other acts which may expose the individual components of the assemblies to an ignition source.

Materials used to fabricate discontinuous small parts (such as knobs, rollers, fasteners, clips, grommets, and small electrical parts) that will not contribute materially to fire growth in end use configuration are exempt from flammability and smoke emission performance requirements, provided that the surface area of any individual small part is less than 16 square inches (100 cm²) in end use configuration and an appropriate fire hazard analysis is conducted which addresses the location and quantity of the materials used, and the vulnerability of the materials to ignition and contribution to flame spread.

If the surface area of any individual small part is less than 16 square inches (100 cm²) in end use configuration, materials used to fabricate such a part may be tested in accordance with ASTM E-1354-99 as an alternative to both (a) the ASTM E 162-98 flammability test procedure or the appropriate flammability test procedure otherwise specified in the table and

(b) the ASTM E 662-01 smoke generation test procedure. Testing shall be at 50 kW/m² applied heat flux with a retainer frame. Materials tested in accordance with ASTM E-1354-99 must meet the following performance criteria: average heat release rate (q'_{180}) less than or equal to 100 kW/m² and average specific extinction area less than or equal to 500 m²/kg over the same 180-second period.

Portions of the vehicle body, which separate major ignition sources, energy sources, or sources of fuel-load from vehicle interiors, shall have sufficient fire endurance as determined by a fire hazard analysis acceptable to the railroad which addresses the location and quantity of the materials used, as well as vulnerability of the materials to ignition, flame spread, and smoke generation. These portions include equipment carrying portions of a vehicle's roof and the interior structure separating the levels of a bi-level car, but do not include a flooring assembly subject to Note 16. A railroad is not required to use the ASTM E 119-00a test method.

Burden hour estimates for conducting fire hazard analyses have been included in the discussion of the requirements of § 238.103 above. Note: These analyses themselves require railroads to consider the extent to which materials comply with the test performance criteria for flammability and smoke emission characteristics as specified in this Appendix.

Appendix F to Part 238 –Alternative Dynamic Performance Requirements for Front End Structures of Cab Cars and MU Locomotives

Alternative Requirements for Corner Posts

(B)(3)(ii) After FRA review and approval of a plan, including acceptance criteria, to evaluate compliance with this paragraph (b), cab cars and MU locomotive utilizing low-level passenger boarding on the non-operating side of may have two, full-height corner posts on that side, one post located ahead of the stepwell and one located behind it, so that the corner post located ahead of the stepwell is permitted to fail provided that –

(A) The corner post located behind the stepwell shall have no more than 10 inches of longitudinal, permanent deformation; and

(B) There shall be no complete separation of that post, its connection to the underframe, its connection to either the roof structure or the anti-telescoping plate (if used), or of its supporting car body structure; and

(4) The nominal weights of the object and the cab car or MU locomotive , as ballasted, and the speed of the object may be adjusted to impart the minimum of 120,000 foot-pounds of energy (0.16 MJ) of energy (E_a) to be absorbed in accordance with the following formula:

$$E_a = E_o - E_f$$

Where –

$$E_o = \text{Energy of initially moving object at impact} = \frac{1}{2} m_1 * V_o^2$$

$$E_f = \text{Energy after impact} = \frac{1}{2} (m_1 + m_2) * V_f^2$$

V_o = Speed of initially moving object at impact.

$$V_f = \text{Speed of both objects after collision} = m_1 * V_o / (m_1 + m_2)$$

m_1 = Mass of initially moving object.

m_2 = Mass of initially standing object.

The burden hour for this requirement is included under that of § 238.213 above. Consequently, there is no additional burden associated with this provision.

The total burden for this entire information collection is **4,603,760 hours**.

13. Estimate of total annual costs to respondents.

number 12 above. These costs are shown below. (Note: The burden for analysis required by the NPRM's new Tier III equipment sections is already included directly above in hours. Therefore, it would be double counting to include them below in dollars.)

COSTS

1.) Section 238.703/705 – Cost Related to Occupied Vehicle Integrity (OVI) Requirement for Tier I Alternative (22 Tests/Analyses involving 30 procurements are estimated over a 30-year period. This equals approximately .75 tests per year x \$56,000 = **\$42,000**

2.) Section 238.709 – Costs Related to Fluid Entry Inhibition for Tier I Alternative – Alternative (22 Tests/Analyses involving 30 procurements are estimated over a 30-year period. This equals approximately .75 tests per year x \$3,000 = \$300 recordkeeping = **\$2,550**

3.) Section 238.713 – Costs Related to End Structure of Non-cab End for Tier I Alternative - (22 Qualifications/Tests/Analyses involving 30 procurements are estimated over a 30- year period. This equals approximately .75 tests per year x \$16,000 = **\$12,000**

4.) Section 238.717 – Costs Related to Truck Attachment for Tier I Alternative - (22 Analyses involving 30 procurements are estimated over a 30- year period. This equals approximately .75 tests per year x \$6,000 = **\$4,500**

5.) Section 238.703 – Cost Related to Occupied Vehicle Integrity (OVI) Requirement for **Tier III** (8 Qualifications/Tests/Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 tests per year x \$50,000 = **\$18,500**

6.) Section 238.705 – Cost Related to Dynamic Collision Scenario Requirements for **Tier III** (8 Qualifications/Tests/Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 tests per year x \$58,000 = **\$21,460**

7.) Section 238.713 – Cost Related to End Structure of Non-Cab End Requirements for **Tier III** (8 Tests/Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 test/analysis per year x \$16,000 = **\$6,080**

8.) Section 238.717 – Cost Related to Truck Attachment Requirements for **Tier III** (8 Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 analysis per year x \$3,000 = **\$1,110**

9.) Section 238.721 – Cost Related to Glazing Requirements for **Tier III** (8 Tests involving 11 procurements are estimated over a 30-year period. This equals approximately .37 test per year x \$16,000 = **\$5,920**

10.) Section 238.733 – Cost Related to Interior Fixture Attachment Requirements for **Tier III** (8 Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 analysis per year x \$9,000 = **\$3,330**

11.) Section 238.735 – Cost Related to Interior Seat Crashworthiness Requirements for **Tier III** (8 Tests/Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 test/analysis per year x \$21,000 = **\$7,770**

12.) Section 238.737 – Cost Related to Luggage Rack Requirements for **Tier III** (8 Analyses involving 11 procurements are estimated over a 30-year period. This equals approximately .37 analysis per year x \$9,000 = **\$3,330**

13.) Section 238.741 – Cost Related to Emergency Window Safety Plan Requirements for **Tier III** (8 Plans involving 11 procurements are estimated over a 30-year period. This equals approximately .37 plan per year x \$8,640 = **\$3,197**
TOTAL **\$131,747**

Additional costs to respondents are as follows:

\$59,500	-	Training Material
350	-	Postage
2,000	-	Miscellaneous Expenses
<u>190</u>	-	Printing of Defective Tags (4,758 TAGS @ 4 cents each)
\$62,040		

GRAND TOTAL **\$183,787**

14. Estimate of Cost to Federal Government.

\$ 3,000	-	Publish Federal Register Notices pertaining to waivers and petitions
78,000	-	2,000 hours @ \$39 per hour for review of documents
<u>1,000</u>	-	Miscellaneous expense
\$82,000		

15. Explanation of program changes and adjustments.

The total burden requested for this revised collection of information exhibits an increase of

165,628 hours and a decrease of **7,717 responses**. The increase in burden hours is due to some **program changes** under the proposed rule’s new requirements, but is overwhelmingly due to **adjustments**. The two tables below depict both the **program changes** and **adjusted** estimates.

PROGRAM CHANGES

Part 238Section	Responses & Avg. Time (Previous Submission)	Responses & Avg. Time (This Submission)	Burden Hours (Previous Submission)	Burden Hours (This Submission)	Difference (plus/minus)
238.111 –(New Requirements) – Tier II & Tier III Equipment: Report of Test Results to FRA - RR Plan submitted to FRA for Tier III equipment before being placed in service	N/A	1 report 60 hours	N/A	60 hours	+ 60 hours + 1 response
	N/A	1 plan 20 hours	N/A	20 hours	+ 20 hours + 1 response
238.201 – (New Requirements) -- Alternative Compliance: Tier I Passenger equipment – Test plans & supporting documentation demonstrating compliance - Notice of Tests sent to FRA 30 days prior to commencement of operations	N/A	1 plan 40 hours	N/A	40 hours	+ 40 hours + 1 response
	N/A	1 notice 30 minutes	N/A	1 hour	+ 1 hour + 1 response
238.703 – (New Requirement) Quasi-static Load Requirements – Document/analysis Tier III Trainsets showing compliance with this section	N/A	1 analysis 40 hours	N/A	40 hours	+ 40 hours + 1 response
238.705 – (New Requirement) Dynamic Collision Scenario – Demonstration of Occupied Volume Integrity Tier III Trainsets—Model	N/A	1 analysis 40 hours	N/A	40 hours	+ 40 hours + 1 response

Validation document					
238.707 – (New Requirement) – Override Protection – Perf. Tests/ Analysis –Tier III Trainsets	N/A	1 analysis 40 hours	N/A	40 hours	+ 40 hours + 1 response
238.709 – (New Requirement) – Fluid Entry Inhibition – Info. to demonstrate compliance with this section Tier III trainsets	N/A	1 analysis 20 hours	N/A	20 hours	+ 20 hours + 1 response

238.721 – (New Requirements) – Safe Operation Plans Tier III trainsets: Addressing glazing + other Subpart G issues - End-Facing document/analysis for exterior windows of Tier III trainsets - 30-Day Notice by glazing manufacturer to FRA inviting agency to witness all tests on Tier III passenger equipment -Glazing material recertification - Marking of end-facing exterior windows: Tier III trainsets -Cab glazing: side facing exterior window in Tier III cab: compliance doc. - Marking of side facing exterior windows Tier III trainsets -Non-cab glazing: side-facing exterior window Tier III equipment compliance document - Markings side-facing exterior windows Tier III trainsets non-cab car - Alternative standard for side-facing exterior intended to be breakable & serve as emergency window exit in accordance with RR’s Tier III Safe Operation plan	N/A	1 analysis 480 hours	N/A	480 hours	+ 480 hours + 1 response
	N/A	1 analysis 60 hours	N/A	60 hours	+ 60 hours + 1 response
	N/A	1 written notice 30 minutes	N/A	1 hour	+ 1 hour + 1 response
	N/A	1 recertification 1 second	N/A	0 hour	0 hour + 1 response
	N/A	120 markings 2 minutes	N/A	4 hours	+ 4 hours + 120 responses
	N/A	1 analysis 10 hours	N/A	10 hours	+ 10 hours + 1 response
	N/A	240 markings 2 minutes	N/A	8 hours	+ 8 hours + 240 responses
	N/A	1 analysis 20 hours	N/A	20 hours	+ 20 hours + 1 response
	N/A	1,200 markings 2 minutes	N/A	40 hours	+ 40 hours + 1,200 responses
	N/A	1 alternative standard 5 hours	N/A	5 hours	+ 5 hours + 1 response
238.731 – (New Requirements) – Brake Systems – RR Analysis and testing Tier III trainsets maximum safe operating speed	N/A	1 analysis/testing 480 hours	N/A	480 hours	+ 480 hours + 1 response

-Tier III trainsets passenger brake alarm – legible stenciling/markings of devices with words “Passenger Brake Alarm” - Inspection, testing and maintenance plan (ITM) – Periodic inspection for main reservoirs	N/A	40 stencils/ markings 20 minutes	N/A	13 hours	+ 13 hours + 40 responses
	N/A	1 ITM plan 480 hours	N/A	480 hours	+ 480 hours + 1 response
238.741 – (New Requirement) – Emergency window egress and rescue plan to FRA for passenger cars in Tier III trainsets not in compliance with sections 238.113 or 238.114	N/A	1 plan 60 hours	N/A	60 hours	+ 60 hours + 1 response
238.743 – (New Requirement) – Emergency Lighting – Tier III trainsets - Testing/ Analysis	N/A	1 analysis/testing 60 hours	N/A	60 hours	+ 60 hours + 1 response
238.751 – (New Requirement) – Alerters -- Tier III trainsets - Testing/ Analysis	N/A	1 analysis/testing 200 hours	N/A	200 hours	+ 200 hours + 1 response

Program changes above increased the burden by 2,182 hours and increased the number of responses by 1,620.

ADJUSTMENTS

Part 238Section	Responses & Avg. Time (Previous Submission)	Responses & Avg. Time (This Submission)	Burden Hours (Previous Submission)	Burden Hours (This Submission)	Difference (plus/minus)
238.107 – RR annual review of inspection, testing, & maintenance plan	12 reviews 60 hours	30 reviews 60 hours	720 hours	1,800 hours	+ 1,080 hours + 18 responses
238.303 – Notice to train crew that exterior calendar day inspection was performed	25 notices 1 minute	30 notices 1 minute	1 hour	1 hour	0 hour + 5 responses

238.305 – Record of each interior calendar day inspection	1,969,980 records 6 minutes	1,959,620 records 11minutes	196,898 hours	359,624 hours	+ 162,366 hours -- 9,360 resp.
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Adjustments above increased the burden by *163,446 hours* and decreased the number of *responses* by *9,337*.

The current inventory burden shows a total of 4,438,132 hours, while this revised submission reflects a total burden of 4,603,760 hours. Hence, there is an increase of **165,628 hours**.

The cost to respondents has increased by **\$121,747** from the last approved submission. The change in cost is the result of **program changes** in the proposed rule. The previous submission reflected a total cost to respondents of *\$62,040*, while the present submission reflects a total cost to respondents of *\$183,787*. Hence, there is an increase in cost of **\$121,747**.

16. Publication of results of data collection.

FRA has no plans to publish this information.

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.

Meeting Department of Transportation (DOT) Strategic Goals

This information collection supports four of the five DOT strategic goals. First, it supports the Department's highest strategic goal, namely transportation safety. The rule (and corresponding information collection) seeks to reduce the number and severity of railroad accidents/incidents by ensuring that brake equipment used in freight operations throughout the United States is properly inspected, tested, and maintained. In particular, written standard operating requirements will force railroads to analyze the safety impacts of the various ways to handle potentially dangerous situations. These operating requirements will formalize what is already being practiced by many railroads. FRA believes that the forethought required to develop these procedures will pre-empt many mistakes that cause dangerous situations to develop. By reducing safety risks, there should be a corresponding reduction in the number of accidents/incidents, and severity of injuries to railroad employees and members of the general public.

Training record requirements will further enhance rail transportation safety. Training records will be used by railroads to demonstrate that the individuals responsible for train brake system inspection, maintenance, and tests meet the minimum qualification requirements prescribed in this rule. FRA will have access to these records. As a result, it can independently assess whether the training provided to a specific individual adequately addresses the tasks for which that individual is deemed capable of performing. Agency access to and review of training records will serve to minimize potential abuses by railroads to use insufficiently qualified or trained individuals to perform necessary inspections, tests, and maintenance required by this Part. The training and qualification requirements will be the means by which FRA can judge the effectiveness and appropriateness of a railroad's training and qualification program. By using properly qualified and trained individuals, brake equipment will be properly serviced and maintained, and thus placed in better and safer condition. Because the rule clarifies tagging requirements, contains provisions regarding the placement of defective equipment, and provides a consistent method for calculating the percentage of operative brakes on a train, FRA believes that it is more likely that defective equipment will be moved in a safe and proper manner. This too serves DOT's top strategic goal.

Second, this information collection supports the DOT strategic goal of mobility. By ensuring rail passenger equipment and rail brake equipment which are in better and safer condition, the overall safety of the system is enhanced, and flexibility of choice is maintained for Americans wishing to travel. This provides the public with another travel option, and individuals can decide for themselves on that mode of transportation which best suits their needs and desires. A safer rail system will be more accessible, more efficient, and thus more popular.

Third, this information collection supports the Human and Natural Environment strategic goal in a very important way. By reducing the number and severity of railroad accidents/incidents and resulting property damage, communities and the natural environment affected will be protected. This is especially true in the case of passenger train-tanker truck collisions and other accidents/incidents involving hazardous materials that are caused by defective brakes. Fewer accidents/incidents will translate into fewer pollutants, and other possible toxic substances being released into the natural environment. This will serve to promote the sustainability and livability of communities throughout the country.

Finally, this information collection supports National Security. Passenger cars which are safe would be a crucial component to move the military, as well as the general public, in the event of a national emergency. In a world filled with terrorism and instability, getting large numbers of people to specific destinations on schedule would doubtless greatly serve the national interest and indeed enhance national security.

In this information collection as in all its information collection activities, FRA seeks to do its very best to fulfill DOT Strategic Goals and to be an integral part of One DOT.