

## SUPPORTING JUSTIFICATION

### Railroad Bridge Safety Standards (OMB No. 2130-0586)

#### Summary of Submission

- This submission is a request for a revision of the last approval granted by OMB on **May 6, 2011**, which expires **May 31, 2014**.
- FRA published the required 60-day **Federal Register** Notice on December 23, 2013. See 78 FR 77550.
- The total number of burden **hours requested** for this submission is **224,608 hours**.
- The total burden **previously approved** for this information collection amounted to **256,898 hours**.
- The decrease in burden from the last approved submission amounts to **32,290 hours**.
- Total **adjustments** amount to **32,290 hours**.
- There are no program changes
- Total number of **responses requested** for this submission is **49,121**.
- Total number of **responses previously approved** for this submission is **54,083**.
- **\*\*The answer to question number 12 itemizes the hourly burden associated with each requirement of this rule (See pp. 22-45).**
- **\*\*The answer to question number 15 itemizes all adjustments (See p. 46).**

#### 1. Circumstances that make collection of the information necessary.

##### Background

There are nearly 100,000 railroad bridges in the United States. These bridges are owned by over 600 different entities. The bridges vary in length, load capacity, design, and construction material. Everything that is shipped or transported via rail likely travels across one or more railroad bridge. Thus, everything from intermodal goods, automobiles, grain, coal, hazardous materials, and passengers is transported on the nation's rail system and therefore across railroad bridges.

The structural integrity of bridges that carry railroad tracks is important to the safety of railroad employees and to the public. The responsibility for the safety of railroad bridges rests with the owner of the track carried by the bridge, together with any other party to whom that responsibility has been assigned by the track owner. The severity of a train accident is usually compounded when a bridge is involved, regardless of the cause of the accident.

Beginning in 1991, FRA conducted a review of the safety of railroad bridges. The review was prompted by the agency's perception that the bridge population was aging, traffic density and loads were increasing on many routes, and the consequences of a bridge failure could be catastrophic. During the past five decades, not one fatality has been caused by the structural failure of a railroad bridge. Train accidents caused by the structural failure of railroad bridges have been extremely rare.

Although the average construction date of railroad bridges predates most highway bridges by several decades, the older railroad bridges were designed to carry heavy steam locomotives. Design factors were generally conservative, and the bridges' functional designs permit repairs and reinforcements when necessary to maintain their viability. Railroad bridges are most often privately, rather than publicly, owned. Their owners seem to recognize the economic consequences of neglecting important maintenance. Private ownership enables the railroads to control the loads that operate over their bridges. Cars and locomotives exceeding the nominal capacity of a bridge are not operated without permission from the responsible bridge engineers, and then only under restrictions and conditions that protect the integrity of the bridge.

Many railroad bridges display superficial signs of deterioration but still retain the capacity to safely carry their loads. Corrosion on a bridge is not a safety issue unless a critical area sees significant loss of material. Routine inspections are prescribed to detect this condition, but determination of its effect requires a detailed inspection and analysis of the bridge. In general, timber bridges continue to function safely, and masonry structures built as early as the 1830's remain functional and safe for their traffic. Of the few train accidents that involved bridges, most have not been caused by structural failure. FRA accident records for the 27 years 1982 through 2008 show 58 train accidents that were caused by the structural failure of railroad bridges. These accidents resulted in nine reportable injuries and a reported \$26,555,878 in damages to railroad facilities, cars, and locomotives.

On April 27, 1995, FRA issued an interim statement of policy on the safety of railroad bridges. Published in the Federal Register at 60 FR 20654, the interim statement included a request for comments to be submitted to FRA during a 60-day period following publication. On August 30, 2000, FRA published a final statement of agency policy for the safety of railroad bridges ("policy statement"). See 65 FR 52667. The policy statement can be found at 49 CFR part 213 Appendix C. With the policy, FRA established criteria for railroads to use to ensure the structural integrity of bridges that

carry railroad tracks, which reflected minor changes following public comment on the interim statement. Unlike regulations under which FRA ordinarily issues violations and assesses civil penalties, the policy statement contains guidelines for the proper maintenance of bridge structures and is advisory in nature.

On October 16, 2008, President Bush signed into law, the Railroad Safety Improvement Act of 2008, Pub. L. 110-432, Division A (“RSIA”). Section 417 of the RSIA directs FRA to issue regulations requiring railroad track owners to adopt and follow specific procedures to protect the safety of their bridges. Prior to the passage of the RSIA, FRA had already begun work on revising the policy statement. On January 13, 2009, FRA published an amendment to the policy statement by incorporating changes proposed by the Rail Safety Advisory Committee (“RSAC”) on September 10, 2008. RSAC developed a list of essential elements of railroad bridge management programs (“essential elements”) which make up the bulk of the amendment. See 74 FR 157. The essential elements provide railroad track owners with a uniform, comprehensive set of components for recommended inclusion in their bridge management programs. With this information, a track owner may develop a single, comprehensive set of instructions, information and data as guidance for his employees who are responsible for the management, inspection, maintenance, and safety of railroad bridges. RSAC also recognized that, although most railroads were already performing these functions to varying degrees, it would be useful to have the recommended essential elements available in a central location so that all concerned may see the railroad's full program, and also to determine that no essential element is overlooked.

The final rule on bridge safety standards – and accompanying collection of information – is intended to standardize and establish federal requirements for railroad bridges. The final rule establishes minimum requirements to assure the structural integrity of railroad bridges and to protect the safe operation of trains over those bridges. The final rule requires railroads/track owners to implement bridge management programs to prevent the deterioration of railroad bridges and to reduce the risk of human casualties, environmental damage, and disruption to the Nation’s transportation system that would result from a catastrophic bridge failure. Bridge management programs are required to include annual inspection of bridges as well as special inspections, which must be conducted if natural or accidental events cause conditions that warrant such inspections. Finally, the final rule requires railroads/track owners to audit bridge management programs and bridge inspections and to keep records mandated under this Part. This final rule then is the culmination of FRA’s efforts to develop and promulgate bridge safety regulations and thus fulfill the Congressional RSIA mandate.

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

The information collected is used by FRA to ensure that railroads/track owners meet Federal standards for bridge safety and comply with all the requirements of this regulation. Specifically, the notifications required under § 237.5 are used by FRA to be

kept informed when an owner of track to which this part applies assigns responsibility for the bridges which carry track to another person. FRA uses this information to hold the track owner or the assignee or both responsible for compliance with this Subpart and subject to the penalties stipulated in § 237.9 for any violations of its requirements. If FRA rejects an assignment of responsibility pursuant to this paragraph, then FRA holds the track owner solely liable for compliance with part 237.

The information collected under § 237.9 is used by FRA to ensure against any railroad employees knowingly and willfully falsifying required reports or records. In cases where FRA inspectors detect instances of falsified reports or records, the agency may subject guilty parties to criminal penalties under 49 U.S.C. 21311.

The information collected under § 237.33 is used to verify that railroads/owners of track carried on one or more railroad bridges adopt and implement bridge safety management programs to assure the structural integrity of these bridges, to prevent the deterioration of these bridges over time, and to reduce the risk of human casualties, environmental damage, and disruption to the national transportation system that would result from a catastrophic bridge failure.

Section 237.35 spells out the minimum requirements that each bridge management program must include. FRA reviews the information collected under § 237.33 to confirm that all requirements of § 237.35 are met and to ascertain that each track owner develops and maintains an accurate inventory of its railroad bridges. The required inventory must identify the location of each bridge, its configuration, type of construction, number of spans, span lengths, and all other information necessary to provide for the safe management of bridge safety. An accurate inventory is essential, and can be used by railroads/track owners to schedule and track bridge inspections, bridge maintenance, and necessary bridge repairs/modifications. Moreover, under the bridge management program content requirements of § 237.35, railroads/track owners must keep a record of the safe load capacity of each bridge. It is critical for railroads/track owners to know and have a record of the safe capacity of each bridge which carries its track. The operations of excessively heavy loads over a bridge will seriously shorten its useful life, and will reduce or even eliminate the margin of safety between structural integrity and catastrophic failure. Railroads use this information to assure that the loads permitted to be operated on a bridge are within the safe limits of the bridge.

Additionally, under the content requirements of § 237.35, railroads/track owners are also required to obtain and maintain the design documents of each bridge, if available, and to document all repairs, modifications, and inspections of each bridge. This information can be used by railroads/track owners to rapidly and accurately determine bridge capacity when such calculations are needed and to determine the maintenance and service history of the bridge to detect and correct possible deterioration of its components.

Finally, under the requirements of § 237.35, each railroad's/track owner's bridge management program must contain a bridge inspection program. FRA reviews this information to assure that each bridge inspection program minimally includes the following components: (1) Inspection personnel safety considerations; (2) Types of inspection, including required detail; (3) Definitions of defect levels along with associated condition codes, if condition codes are used; (4) The method of documenting inspections, including standard forms or formats; (5) Structure type and component nomenclature; and (6) Numbering or identification protocol for substructure units, spans, and individual components. FRA believes bridge inspection is absolutely indispensable to an effective bridge management program.

Under § 237.57, each track owner must designate those individuals qualified as railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors. FRA reviews these designations to ensure that these personnel meet minimum standards set forth in sections 237.51, 237.53, and 237.55 and thus are properly qualified. Bridge engineers must be competent in the field of railroad bridge engineering, and must be able to carry out their assigned duties. These include developing bridge inspection procedures, reviewing all inspection reports, and determining whether bridges are being inspected according to the applicable procedures and frequency. Bridge engineers must also review any items noted by a bridge inspector as exceptions. Bridge inspectors must be able to understand and carry out the inspection procedure, including accessing inspection points on a bridge, measuring components and any changes, describing conditions found in a standard, unambiguous manner, and detecting the development of conditions that are critical to the safety of the bridge. Bridge inspectors who detect a potential hazard to the safe operation of trains must be able, by virtue of training and experience, to place appropriate restrictions on the operation of railroad traffic, pending review as necessary by a railroad bridge engineer. Effective inspection of bridges then is vital to their integrity and serviceability. Bridge supervisors must be competent and able to take responsibility for the construction, repair, and modification of bridges in order to ensure that work is performed in accordance with valid standards and any specifications, plans, and instructions applicable to that work.

The documented determination of bridge load capacity under § 237.71 is used by track owners and railroads to ensure that the safe capacity of a particular bridge is not exceeded. Bridge load capacity determinations can be made from the original design documents, through recalculations or rating inspections. In most instances, load capacity determination will require the education, experience, and training of a railroad bridge engineer who is familiar with railroad bridges and the standard practices that are unique to that class of structure. For bridges that have not already had their load capacity determined, track owners/railroads are required to schedule the evaluation of these bridges to determine load capacity. Unrated bridges can then be given relative priority for rating, based on the judgment of a railroad bridge engineer. This prioritization can be accomplished either by observation or by evaluation of certain members of a bridge, as determined by the engineer using his/her professional judgment. When a bridge

inspection record reveals that the condition of the bridge or a bridge component might affect the load capacity of the bridge, a new load capacity must be determined

Under § 237.73, each track owner must issue instructions to personnel who are responsible for the train consist and their operations over its bridges. This information is used by railroad personnel to prevent the operation of cars, locomotives, and other equipment that would exceed the capacity or dimensions of its bridges. Bridges can be seriously damaged by the operation of loads that exceed their capacity. Transportation personnel of a railroad are ultimately responsible for the movement of trains, cars, and locomotives; therefore it is essential that they should know and follow any restrictions that are placed on those movements.

Under § 237.101, each bridge management program must include a provision for scheduling an inspection for each bridge in railroad service at least once each calendar year, with not more than 540 days between any successive inspections. This information is used by railroads/track owners as an effective tool of bridge management. Even where a bridge sees very low levels of railroad traffic, the potential still exists for damage from external sources or natural deterioration. Bridges must be inspected more frequently when a railroad bridge engineer determines that such frequency is necessary. Scheduling annual inspections allows railroads to monitor bridges for potential problems. The information is also examined by FRA inspectors and is used to ensure that railroads carry out their required duties concerning the proper maintenance and care of these important structures.

Under § 237.103 and § 237.105, each bridge management program must prescribe a procedure for protection of trains and must specify the procedure to be used for inspection of individual bridges/classes of bridges that might have been damaged by a natural or accidental event, including flood, fire, earthquake, derailment or vehicular or vessel impact. Each bridge management program must provide for the detection of scour or deterioration of bridge components that are submerged or that are subject to water flow. FRA carefully scrutinizes the bridge management programs to ensure that bridge inspection procedures include the necessary level of detail and are appropriate to the configuration of the bridge and that they are designed to detect, report, and protect against deterioration and deficiencies before they present a hazard to safe train operation. The information is used by railroad bridge inspectors to carry out their assigned duties, and by railroad bridge supervisors and railroad bridge engineers to perform their review and oversight functions of the work completed by railroad bridge inspectors to verify that railroad bridge management procedures were followed.

Under § 237.107 and § 237.109, bridge inspections must be conducted under the direct supervision of a designated bridge inspector who is responsible for the accuracy of the results and conformity of the inspections to the bridge management program. Track owners/railroads are required to keep a record of each inspection required to be performed on bridges under this Subpart. Each record must be prepared from notes taken

on the day of inspection, supplemented with sketches and notes as needed. FRA inspectors review these reports to make sure that required inspections are carried out and all necessary information is included in each report. Specifically, inspectors examine each report to see that it contains the following information: (1) A precise identification of the bridge; (2) The date on which the physical inspection was completed; (3) The identification and written or electronic signature of the inspector; (4) The type of inspection performed, in conformance with the definitions of inspection types in the bridge management program; (5) An indication on the report as to whether any item noted thereon requires expedited or critical review by a railroad bridge engineer, and any restrictions placed at the time of the inspection; (6) The condition of components inspected, which may be in a condition reporting format prescribed in the bridge management program, together with any narrative descriptions necessary for the correct interpretation of the report; (7) When an inspection does not encompass the entire bridge, the portions of the bridge which were inspected must be identified in the report. Bridge inspections and accompanying required records are also used by track owners/railroads to monitor the condition of bridges that they are responsible for and to maintain them in a proper and safe condition for trains operating on and over them, including making necessary modifications and repairs.

Under § 237.111, bridge inspection reports are required to be reviewed by railroad bridge supervisors to determine the need for further high level review. Those determined to need higher level review are evaluated by railroad bridge engineers. Railroad bridge engineers perform the following: (a) Determine inspections have been performed in accordance with the prescribed schedule and specified procedures; (b) Evaluate whether any items on the report represent a present or potential hazard to safety, (c) Prescribe any modifications to the inspection procedures for that particular bridge; and (d) Schedule any repairs or modifications to the bridge required to maintain its structural integrity. Thus, these inspection reports are used by railroads/track owners to ensure bridge safety by using a multi-tiered review process to immediately take any considered/necessary actions to prevent detected minor bridge problems from becoming major issues threatening the safety of bridges and the trains, cargo, and passengers that operate over them.

Under § 237.131, each repair or modification of a bridge pursuant to this Part must be designed by a railroad bridge engineer. FRA reviews these documents to ensure that design of entire railroad bridges, modifications, and repairs which materially modify the capacity of the bridge or the stresses in any primary load-carrying component of the bridge are developed by engineers with training and experience in the field of railroad bridges and that these designs apply/meet sound engineering principles.

Under § 237.153, railroads/track owners must incorporate provisions for internal audit into their bridge management program and must conduct internal audits of bridge inspection reports. The information is used by FRA for compliance purposes as well as to ensure that railroads/track owners implement a safe and effective bridge management

program and bridge inspection regime. The information can be used by railroads/track owners to verify that the inspection provisions of the bridge management program are being followed and to continually check the effectiveness of bridge inspections through comparisons of recent bridge inspection reports against actual conditions found at the subject bridges.

Finally, under § 237.155, railroads/track owners required to implement a bridge management program must keep documents and records and make them available to FRA for inspection and reproduction. FRA uses these vital documents and records to ensure that railroads/track owners responsibly comply with all the requirements of this regulation.

Under paragraphs (a) and (b) of this section, track owners/railroads may create and maintain any of the records required by this Part through electronic transmission, storage, and retrieval, provided the requirements specified in this section are met. FRA reviews electronic recordkeeping systems to ensure that the following: (1) The system used to generate the electronic record meets all requirements of this subpart; (2) The electronically generated record contains the information required by this Part; (3) The railroad monitors its electronic records database through sufficient number of monitoring indicators to ensure a high degree of accuracy of these records; (4) The track owner/railroad shall train its employees who use the system on the proper use of the electronic recordkeeping system; and (5) The railroad maintains an information technology security program adequate to ensure the integrity of the system, including the prevention of unauthorized access to the program logic or individual records.

FRA reviews monitoring and information technology security systems for electronic recordkeeping to ensure the integrity of the railroad's program and database and to verify that the system utilizes an employee identification number and password or comparable method to establish appropriate levels of program access that meet all of the following standards: (1) No two individuals have the same electronic identity; (2) A record cannot be deleted or altered by any individual after the record is certified by the employee who created the record; (3) Any amendment to a record is either -- (i) Electronically stored apart from the record that it amends, or (ii) Electronically attached to the record as information without changing the original record; (4) Each amendment to a record uniquely identifies the person making the amendment; and (5) The electronic system provides for the maintenance of inspection records as originally submitted without corruption or loss of data.

In sum, this collection of information is an essential and invaluable tool that assists FRA in its primary mission, namely promoting and enhancing railroad safety throughout the United States.

**3. Extent of automated information collection.**

FRA strongly endorses and highly encourages the use of the latest information technology, wherever feasible, by the railroad industry to reduce burden. For many years, FRA has encouraged the use of advanced information technology, particularly electronic recordkeeping. In keeping with its longstanding practice and with the requirements of the Government Paperwork Elimination Act (GPEA), railroads/track owners under §237.157 are permitted to create and maintain any of the records required by this Part through electronic transmission, storage, and retrieval, provided that all the conditions stipulated in this section are met. Thus, railroads/track owners are permitted to keep electronic records under the requirements for § 237.33/35, § 237.59, § 237.73, § 237.107, and § 237.111. Approximately 47 percent then of estimated responses may be kept by railroads/track owners, if they so chose.

**4. Efforts to identify duplication.**

To our knowledge, the information collection requirements are unique and are not duplicated anywhere.

Similar data are unavailable from any other source.

**5. Efforts to minimize the burden on small businesses.**

The “universe” of the entities to be considered generally includes only those small entities that are reasonably expected to be directly regulated by this action. Two types of small entities are potentially affected by this rulemaking: (1) railroads that own track supported by a bridge, and (2) governmental jurisdictions of small communities that own railroad bridges.

“Small entity” is defined in 5 U.S.C. § 601. Section 601(3) defines a “small entity” as having the same meaning as “small business concern” under § 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. Section 601(4) includes not-for-profit enterprises that are independently owned and operated, and are not dominant in their field of operations within the definition of “small entities.” Additionally, § 601(5) defines as “small entities” 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 the largest a for-profit railroad business firm may be (and still classify as a “small entity”) is 1,500 employees for “Line-Haul Operating” railroads, and 500 employees for “Short-Line Operating” railroads.

SBA size standards may be altered by Federal agencies in consultation with SBA, and in conjunction with public comment. Pursuant to the authority provided to it by SBA, FRA has published a final policy, which formally establishes small entities as railroads that meet the line haulage revenue requirements of a Class III railroad. 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 carrier, which is adjusted by applying the railroad revenue deflator adjustment. The same dollar limit on revenues is established to determine whether a railroad shipper or contractor is a small entity. FRA proposed to use this definition for this rulemaking in the NPRM and received no comments on that proposal. FRA is using this definition for the final rule. Small entities that are classified as governmental jurisdictions of small communities may also be affected by the proposals in this final rule. As stated above, and defined by SBA, this term refers to governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of less than 50,000. The potential impact of this rulemaking to these entities is related to their ownership of a bridge and possibly the track supported by the bridge as well. Such bridges are usually built by communities, with railroad collaboration, to achieve highway-rail grade separation.

FRA does not have information regarding the number of small communities that own such bridges. In some cases, however, the government entity and the railroad apportion ownership, expenses and maintenance responsibility according to the provisions of an order from the State regulatory agency that governs highway/railroad crossing improvements. It is most common for the railroad to retain the responsibility for the actual inspection and management of the bridge. To the extent that agreements require cost-sharing and existing bridge management programs would have to be enhanced to meet the proposed regulation, there may some burden passed on to small government jurisdictions. However, such burden is not expected to be substantial. To the extent that any burden does result, it is likely that insurance premiums will be adjusted to reflect the risk reduction resulting in some level of savings, in addition to the cost of the program enhancement. This would, of course, be in addition to safety benefits related to fewer accidents. Accordingly, FRA cannot accurately assess the number of governmental jurisdictions of small communities that would be directly impacted by this regulation and what the impact would be to them. FRA requested comment from affected governmental jurisdictions as to the impact the proposed rule on them during the NPRM comment process. The comments received during the public comment period of the NPRM did not provide any additional data or information on this issue.

There are approximately 681 small railroads meeting the definition of "small entity" as described above. FRA estimates that approximately 95 percent of these small entities, or approximately 647, own track supported by a bridge. Because the final rule would apply to all of these small railroads, FRA has concluded that a substantial number of such entities would be impacted. Note, however, that approximately 125 of these railroads are subsidiaries of large short line holding companies with the expertise and resources

comparable to larger railroads. In the IRFA for the NPRM, FRA estimated a smaller number of subsidiaries, but since then has gained more accurate information as to the best estimate of how many small railroads are subsidiaries of larger corporations. In addition, absent this rulemaking, most railroads that own track supported by bridges, including many of the railroads identified as small entities, would to some extent voluntarily incur the expense associated with implementation of the bridge management programs in accordance with the requirements proposed by FRA to address the risk associated with structural failure of a bridge. In fact, the ASLRRA, which represents most of the small railroads impacted by this rulemaking, has developed a model bridge management program intended to keep bridge and culvert infrastructure safe and structurally sound. Member railroads are expected to take the generic plan and customize it to meet their specific circumstances and the requirements in this rulemaking. Such initiative would minimize the program development cost. Nevertheless, program implementation costs may be substantial for those small railroads that do not currently have bridge management programs and do not inspect railroad bridges regularly.

While FRA recognizes that some small railroads do not currently have bridge management programs, the agency believes that many railroads have already made or are making the transition to track structures and bridges capable of handling 286,000-pound cars in line with the general movement in the industry toward these heavier freight cars. To protect such investments, which are usually quite significant, railroads are already implementing bridge management programs.

In addition, at least one Class I railroad has arranged for short line and regional railroads that connect with it to send participants to several multi-day bridge inspection classes this year.

In general, implementation of the rule will likely significantly burden only a small portion of the small railroads potentially affected. FRA invited commenters to submit information that might assist us in assessing the cost impacts on small railroads of the proposals during the comment process of the NPRM; however, very little comment was received on this matter, and comments received were not sufficient to allow us to make a determination.

It should be noted that this final rule does not apply to bridges on track used exclusively for rapid transit operations in an urban area that are not connected with the general railroad system of transportation. It also does not apply to bridges located within an installation which is not part of the general railroad system of transportation and over which trains are not operated by a railroad.

Further, it should be noted that the rule provides staggered or delayed implementation dates regarding bridge management programs for Class II and Class III railroads. Specifically, Class I carriers and owners of track segments which are part of the general railroad system of transportation and which carry more than 10 scheduled passengers

trains per week must implement their bridge safety programs no later than 242 days after the final rule's publication date in the **Federal Register**. Class II carriers which carry 10 or fewer scheduled passenger trains per week must implement their bridge safety programs no later than 425 days after the final rule's publication date in the **Federal Register**. All other track owners subject to this part must implement their bridge safety programs no later than 791 days after the final rule's publication date in the **Federal Register**. Thus, in consideration of the impact on small railroads that may not already have bridge management programs, the rule schedule provides small railroads with an additional 18 months more than Class I carriers, and an additional 12 months more than Class II carriers to adopt these programs.

## 6. Impact of less frequent collection of information.

If the information were not collected or collected less frequently, railroad safety throughout the United States would be greatly jeopardized, possibly with catastrophic consequences if a railroad bridge deteriorated to such an extent that it collapsed because it was not properly inspected or necessary repairs/modifications were not made in a timely manner. Without this collection of information, there might be increased numbers of train accidents/incidents and accompanying injuries, fatalities, and property damage because bridges over which trains operate every day throughout this country were not properly inspected, maintained, modified, and repaired in a systematic and consistent way by qualified railroad personnel.

Without the information collected under § 237.7, FRA would have no way of knowing when railroads/track owners assign responsibility for their bridges to another person (by lease or otherwise) and who is actually responsible for the safe operation of trains over those bridges and compliance with the requirements of this Part.

Without the information collected under § 237.13, FRA would not be able to determine those situations where it is appropriate, safe, and conducive to the public interest to grant waivers to railroads/track owners regarding any of the requirements of this proposed rule.

Without the information collected under § 237.33 and § 237.35, FRA would be unable to verify that railroads/track owners have adopted and implemented a bridge management program to preserve the capability of their bridges to safely carry daily rail traffic over them and to prevent any deterioration that could lead to train collisions and derailments. Without the information collected under these sections, FRA could not be assured that railroads/track owners have established a comprehensive program to inspect, maintain, modify and repair their bridges and that railroads/track owners have completed an accurate inventory of their bridges and have recorded the safe load capacity of each bridge. An accurate inventory is essential so that responsible and qualified individuals can schedule and track necessary railroad bridge inspection, maintenance, and repair activities.

Without the information collected under § 237.59, FRA would not be able to know which individuals have been designated as railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors. Without this information, FRA would not know the basis of each designation, and would not be able to perform its oversight function to ensure that only qualified and properly trained individuals serve in these important safety-critical positions.

Without the information collected pertaining to the determination of bridge load capacities under § 237.73, FRA and railroad/track owners would be unable to ensure that the safe load capacity of railroad bridges is not exceeded. Bridge load capacities that are exceeded by overweight and over-dimension train cars could cause structural damage to bridges and might impair the smooth flow of rail traffic over these vital transportation arteries that move so many people and goods each day throughout the nation. In a worst case scenario, a bridge load capacity that is constantly exceeded could cause stresses and accumulated damage over time that could lead to train collisions and derailments. Were these bridges not properly inspected and repaired, a catastrophic accident could occur involving release of poisonous chemicals or possibly involving collapse of the bridge itself, with scores of injuries, fatalities, damage to property, and possibly environmental damage affecting surrounding communities.

Without the information collected under § 237.75, FRA could not be assured that railroads/track owners have issued clear and necessary instructions to its bridge personnel who are responsible for the safe operation of trains over its bridges. Without this information, railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors could not effectively perform their duties to prevent the operation of cars, locomotives, and other equipment from exceeding the capacity or dimensions of its bridges.

Without the information collected under §§ 237.103, 237.105, and 237.107, FRA could not be confident that essential bridge inspections are scheduled, and carried out by properly qualified personnel, as needed and as set forth in the bridge management program of each railroad/track owner. Railroad personnel need to know and follow bridge inspection procedures established in their railroad's/track owner's bridge management program in order to perform each inspection with the level of detail appropriate to the configuration of the bridge, conditions found at that inspection or during previous inspections, and the nature of the railroad traffic moved over the bridge, including equipment weights, train frequency and length, levels of passenger and hazardous materials traffic, and vulnerability of the bridge to damage. It is especially important that special inspection bridge procedures (e.g., those for underwater bridge inspections) be followed to detect and repair damage to bridges caused by accidental or natural events, including, but not limited to, floods, fires, earthquakes, derailments, or vehicular or vessel impacts. Failure to follow procedures specified in the railroad's/track owner's bridge management program or by a railroad bridge engineer could lead to increased numbers of accidents/incidents and corresponding casualties to train crews, rail

passengers, and other members of the general public.

Without the information collected under § 237.109, FRA could not be certain that bridge inspections are conducted under the supervision of a designated bridge inspector who is responsible for the accuracy of the inspection results and the conformity of the inspection to the railroad's/track owner's bridge management program.

Without the information collected under §237.111, FRA would be severely impeded in its compliance/oversight function related to bridge inspections because there would be no record of each inspection required to be performed. Without these necessary records, FRA inspectors would not know the identity or location of the bridge inspected, the date the inspection was completed, the identity of the person who conducted the bridge inspection, the type of inspection performed, whether any item noted on the record required expedited or critical review by a railroad bridge engineer, and if any restrictions were placed on rail traffic movements at the time of inspection. Without these essential records, FRA would have no way to check that bridges were properly inspected or that necessary repairs were carried out before major safety issues developed. A bridge inspection has little value unless it is recorded and reported to the individuals who are responsible for the ultimate determination of the safety of the bridge. Thus, without these records, railroad bridge supervisors and railroad bridge engineers would not be able to carry out their essential duties. In the event of a train accident/incident, FRA's investigation into the cause(s) would be severely hindered.

Without the information collected under §237.113, FRA would be unable to confirm that bridge inspection reports received the multi-tiered review called for in the Railroad Safety Improvement Act of 2008. In this section, responsible railroad bridge supervisors and railroad bridge engineers are required to review bridge inspection reports. Without these reviews, railroads/track owners could not be sure that a considered determination by railroad bridge supervisors and railroad bridge engineers has been made that inspections have been performed according to the prescribed schedule and specified procedures in the bridge management program. Additionally, without these reviews, conditions noted in the bridge inspection report would not be properly evaluated at a higher level to determine what further action is required, if any, on the part of the railroad/track owner. The safe operation of trains over bridges demands that necessary maintenance and repair activities be carried out and done so in a timely fashion.

Without the information collected under §237.133, FRA would be uncertain that bridge repairs and modification of bridges were properly designed. Design of entire railroad bridges, modifications and repairs which materially modify the capacity of the bridge or the stresses in any primary load-carrying component of the bridge require the intelligent application of the principles of engineering and can only be performed by an engineer with training and experience in the field of railroad bridges. Without proper designs, repairs and modifications might be carried out that were substandard or carried out in a fashion that did not effectively accommodate railroad traffic or other live loads. This

could lead to increased numbers of train accidents/incidents throughout the country.

Without the information collected under §237.155, FRA would have no way of knowing whether railroads/track owners are conducting required audits of bridge inspection reports. Without these audits, FRA and railroads/track owners would be unable to determine the effectiveness of bridge management programs. Only by comparison of recent bridge inspection reports against actual conditions found at the subject bridges will railroads/track owners know whether their bridge management programs are working well or need to be modified to maintain and enhance safety.

Finally, without the requirement under §237.157 that railroads/track owners keep documents and records, FRA would have no way to determine and assure compliance with the requirements stipulated in the RSIA of 2008 and spelled out in this proposed rule. FRA inspectors will need to review bridge inspection and maintenance data periodically from railroads/track owners to verify that they and their employees are responsibly and effectively implementing required bridge management programs. Only in this way can FRA be certain that railroads/track owners are properly inspecting, maintaining, modifying, and repairing their bridges to allow the continued safe operation of trains over them.

Also, under §237.157, those railroads/track owners electing to keep required documents and records electronically must meet FRA system security requirements. Without this information, FRA would have no way to verify that the integrity of the railroad's/track owner's database is protected by a security system that utilizes an employee identification number and password, or a comparable method, to establish appropriate levels of program access that meets agency standards. Specifically, the following standards must be met: (1) No two individuals have the same electronic identity; (2) A record cannot be deleted or altered by any individual after the record is certified by the employee who created the record; (3) Any amendment to a record is either -- (i) Electronically stored apart from the record that it amends, or (ii) Electronically attached to the record as information without changing the original record; (4) Each amendment to a record uniquely identifies the person making the amendment; (5) The electronic system provides for the maintenance of inspection records as originally submitted without corruption or loss of data.

Lastly, under §237.157, railroads/track owners must train their employees who use the system on the proper use of the electronic recordkeeping system. Without this information, FRA believes vital records required by this proposed rule might be accidentally deleted, improperly altered/amended, wrongly attached to another record, lost, or corrupted. Without these essential records, FRA inspectors would be unable to perform their monitoring and enforcement functions.

In short, this collection of information promotes and enhances national rail safety, and thus serves as a vital component of FRA's comprehensive safety program. It helps to

meet the requirements enacted in the RSIA of 2008 and is essential in assisting FRA to fulfill its primary agency mission and objective.

**7. Special circumstances.**

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

**8. Compliance with 5 CFR 1320.8.**

As required by the Paperwork Reduction Act of 1995 and 5 CFR 1320, FRA published a notice in the Federal Register on December 23, 2013, soliciting comment on these information collection requirements from the public, railroads, and other interested parties. See 78 FR 77550. FRA received no comments in response to this notice.

**Background**

On August 17, 2009, FRA issued a Notice of Proposed Rulemaking (NPRM) as a first step in the agency's promulgation of bridge safety regulations as mandated by the RSIA. See 74 FR 41558. FRA received comments from eight parties, including two professional engineers, the Alaska Railroad Corporation, Maryland Department of Transportation ("Maryland DOT"), Iowa Department of Transportation ("Iowa DOT"), Rail America, the American Short Line and Regional Railroad Association (ASLRRA), and the Association of American Railroads (AAR). FRA reviewed these comments with its RSAC Railroad Bridge Working Group, and FRA staff also extensively reviewed and evaluated the comments. FRA received no specific comments on the information collection burden cost and burden hour estimates provided in the NPRM.

Three comments addressed concerns with the adoption of bridge management programs. Maryland DOT asked if the regulations "distinguish between Transit Railroads or short-lines, or rail traffic volume," and requested that FRA define Class I and II carriers and the general railroad system. The American Short Line and Regional Railroad Association (ASLRRA) remarked that some design documents for each bridge might be difficult, if not impossible, to obtain. ASLRRA proposed that all documentation required by the rule be completed no later than five years following the program's adoption. This would allow for the search and retrieval, or replication, of required documentation over more realistic time frames, as well as the allocation of necessary expense over a longer, and possibly less impacting, period of time. The Alaska Railroad Corporation requested that the bridge management program adoption time be extended to the effective date of the final rule plus one year. The additional time was necessary for inventory and database development of all structures covered by the regulation, as seasonal climatic conditions will potentially make some of these structures on the Alaska Railroad inaccessible until early summer 2010.

With regard to the first concern, FRA replies that the Surface Transportation Board (STB) defines the class of railroad at 49 CFR Part 1201, based on the carrier's annual operating revenue. This section specifies time periods for program adoption according to the type of railroad, not according to railroad traffic volume or load intensity. By "general railroad system of transportation," FRA refers to the network of standard gage track over which goods may be transported throughout the nation and passengers may travel between cities and within metropolitan and suburban areas. See Appendix A to 49 CFR Part 209.

Regarding the second comment, ASLRRA's proposal is consistent with the proposed rule. Pursuant to § 237.31(c), the program, when adopted by a track owner, need only incorporate a provision to obtain and maintain the design documents of each bridge if available, and to document all repairs, modifications, and inspections of each bridge. There is no deadline for acquisition of these documents. FRA anticipates that the priorities for acquisition of archived bridge design documents would closely follow their usefulness in determining bridge capacities.

To address the Alaska Railroad Corporation's concerns, FRA replies that the bridge inventory need not be complete in all of its details at the time of adoption of a railroad's bridge management program. It is reasonable to expect that an adopted program would specify the format for recording the inventory information, or "bridge list," and that information readily available from existing records, such as valuation maps, could be used to initially populate the data base. After that, additions and refinements to that information would be generated by normal inspection work.

FRA also received comments on the requirement for bridge inspection records. Several commenters suggested that the interim bridge inspection report be deleted from the rule, or that the time period for its submission be extended. Several also suggested that the time period for submission of the complete inspection report be extended. FRA understands that the regulated community is reluctant to see the imposition of record-keeping requirements that might not correspond with their current practices. However, bridge inspections performed by or for the track owner are a critical function which must be monitored in the enforcement process. Since FRA cannot be present on-site at each bridge inspection, the agency must see a record that shows that the inspection was performed, when and by whom it was performed, and the conditions found in the inspection. If there were no time requirements for recording inspections, it would be impossible for FRA to effectively monitor this vital function.

FRA views the interim report as a management tool in the bridge program audit to show whether bridge inspections are being performed at or near their scheduled frequency, with ample time to permit adjustments as necessary in the inspection program. Most railroad bridge inspection programs at present do not incorporate an interim inspection report. The time between an inspection and the filing of the inspection report is found to vary. An effective bridge management program requires that the person in charge of the

program have reasonably current information on the progress of the vital function of bridge inspection. The proposed time frame of 14 days has been extended to 30 days in the final rule because FRA now believes that the 30 day time period is sufficient for effective management by the railroad and effective compliance monitoring by FRA.

Two commenters requested that the time period for submission of the complete inspection report be extended from 45 to 90 days, and one commenter requested 120 days. FRA understands the circumstances in which a consultant is engaged to conduct detailed bridge inspections and evaluations. Some of those evaluations include a considerable amount of engineering work that is performed in an office rather than in the field, and several months are often used in preparing the complete report. The extension of the time period for filing the report is intended to allow the most efficient use of inspection and engineering resources, while still providing effective input for management by the bridge owner and monitoring by FRA. In light of the reasons given, and discussion at the RSAC Railroad Bridge Working Group, FRA finds that a 120 day period for submission of the complete report would be reasonable and effective.

Two commenters noted that the proposed requirement to retain inspection reports until the completion of the next two following inspections of the same type would be burdensome and ineffective in the case of certain special inspections. For instance, if a highway vehicle strike occasions a special inspection, it would have been necessary to retain the records of the special inspection until the bridge had twice again been struck by a highway vehicle and inspected. This is not realistic, so the final rule simply requires that records of inspections be retained for two years following completion of the inspection, and that records of underwater inspections be retained until the completion and review of the next underwater inspection of the same components of the bridge. Additionally, the final rule also accommodates instances in which a bridge inspection does not encompass the entire bridge. It also includes a clarification that when a complete report is filed before an interim report is due, the interim report is not required.

FRA also received comments on the requirement for determining bridge load capacities. One commenter remarked on the difficulty of assigning a precise capacity rating to a timber bridge owing to the wide variations in the properties of timber material and the changes that occur to timber components over time. FRA recognizes that the evaluation of timber trestles is not an exact science. Although theoretical values of safe forces and stresses can be placed on individual timber components, the actual nature of wood varies widely, even within the same species. In addition, timber deteriorates over time and under repeated loads. Some timber bridge components are not easily inspected, especially where faces of the members are hidden by other adjacent or supported members. A load rating on a timber bridge must also account for time and for expected costs to maintain the bridge under its rated traffic. An engineer can raise the capacity of a timber trestle from 263,000 to 286,000 pound cars, for instance, but the owner must be advised that increased maintenance costs will probably result, and that a more intensive

inspection program must be instituted for that bridge, owing to the more rapid deterioration that will occur.

The same commenter also suggested that a revised rating not be required where an existing, valid rating provides a large margin of capacity above the loads that are actually operated. The rule text has been slightly modified to address that issue with a realistic solution. FRA has revised § 237.71(f) to state that a new bridge load capacity shall be determined, if, in the opinion of the railroad bridge engineer, a bridge inspection reveals that the condition of a bridge or a bridge component might adversely affect the ability of the bridge to carry the traffic being operated.

The same commenter also noted the difficulty of assigning a precise rating to many older concrete and masonry structures that are not well documented, and of which the internal configuration cannot be easily determined. FRA recognizes that many older concrete and masonry structures are not documented. Especially in the case of reinforced concrete, the configuration of reinforcing steel greatly affects the calculated capacity of the bridge. The analysis of brick and stone arches is possible, but the unknown variables can produce widely differing results. The practice to date in the railroad bridge engineering profession has been to observe these structures for any obvious signs of distress, and to rate them based on their condition at the time of inspection. FRA will accept the reasonable application of present methods for evaluating and managing these structures, because there is not a history of sudden catastrophic failure, absent sudden damage from severe weather conditions or heavy water flows.

FRA received a variety of other comments. Maryland DOT suggested that FRA consider whether it would be beneficial to have the same inspection frequency criteria for all rail and transit lines or whether it is relevant to distinguish between Class I railroads, short lines, transit lines, or rail traffic volume in general. Maryland DOT also states that it already has a detailed structural inspection program and database. It recommends that the new regulations not require replacement of existing agency programs, reporting forms, etc., to be in accordance with a national standard. Additionally, Maryland DOT asks whether FRA will compensate state agencies for the cost of overhauling their structural inspection program and database, and for the additional expense of conducting annual rather than biennial inspections. Last, Maryland DOT asked if any regulations are proposed for tunnel, station, or other miscellaneous structural inspections.

With respect to the first question, FRA has not distinguished among railroads of different sizes because the size of the railroad is in no way related to the physical attributes of a bridge and the loads that it carries. This rule does not affect transit lines. The only criterion related to inspection frequency in this rule is a minimum of one inspection per year. As this provision is found in the RSIA, FRA has no option in this regard. See Sec. 417(b)(5), Pub. L. 110-432, 122 Stat. 4890 (49 U.S.C. 20103, note). With regard to the second concern, the rule does not require replacement of existing programs as long as they comply with the requirements of the rule. In response to the third concern, Congress

has never appropriated funds to provide assistance in order for regulated entities to comply with railroad safety regulations and thus FRA will not be providing any funding. Finally, tunnels, stations and other structures were not addressed in the proposed rule and thus are not addressed in this final rule. Additionally, the RSIA does not address this issue.

Finally, two commenters expressed a general concern that the security provisions of the proposed rule would preclude the modification of permanent bridge records, such as the inventory itself. As FRA responds that was not the intent, the final rule has been modified so that the data security provisions apply only to bridge inspection records.

### Additional Background

In March 1996, FRA established RSAC, which provides a forum for developing consensus recommendations to FRA's Administrator on rulemakings and other safety program issues. The RSAC includes representation from all of the industry's major stakeholders, including railroads, labor organizations, suppliers and manufacturers, and other interested parties. A list of RSAC members follows:

American Association of Private Railroad Car Owners (AARPCO);  
American Association of State Highway & Transportation Officials (AASHTO);  
American Chemistry Council;  
American Petrochemical 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 (ARM);  
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 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;  
National Railroad Passenger Corporation (Amtrak);  
National Transportation Safety Board (NTSB)\*;  
Railway Supply Institute (RSI);  
Safe Travel America (STA);  
Secretaria de Comunicaciones y Transporte\*;  
Sheet Metal Workers International Association (SMWIA);  
Tourist Railway Association Inc.;  
Transport Canada\*;  
Transport Workers Union of America (TWU);  
Transportation Communications International Union/BRC (TCIU/BRC);  
Transportation Security Administration (TSA); and  
United Transportation Union (UTU).  
\*Indicates associate, non-voting membership.

When appropriate, FRA assigns a task to RSAC, and after consideration and debate, RSAC may accept or reject the task. If the task is accepted, 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 task force then provides that information to the working group for consideration. If 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, the proposal is formally recommended to FRA. FRA then determines what action to take on the recommendation. Because FRA staff 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. However, FRA is in no way bound to follow the recommendation, and the agency exercises its independent judgment on whether the recommended rule achieves the agency's regulatory goal, 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. If the working group or RSAC is unable to reach consensus on recommendations for action, FRA moves ahead to resolve the issue through traditional rulemaking proceedings.

RSAC, February 20, 2008, agreed to accept the task of reviewing FRA's railroad bridge safety policies and activities, and to make appropriate recommendations for FRA to improve the bridge safety program. RSAC accordingly established a Railroad Bridge Working Group (working group), composed of representatives of the various organizations on the RSAC and including persons with particular expertise in railroad bridge safety and management. The working group met on April 24-25, 2008; June 12, 2008; and August 7, 2008. On September 10, 2008, the full RSAC voted on the working

group's report, and recommended that FRA incorporate its Essential Elements into FRA's Agency Policy on the Safety of Railroad Bridges. The working group met again on January 28-29, 2009, and February 23-24, 2009, to recommend rule text to address the RSIA's mandate to FRA in Section 417 to promulgate bridge safety regulations. The working group reached consensus on proposed regulatory text which made up the basis of the NPRM.

After the NPRM comment period closed, the working group reconvened on December 15, 2009, to review the comments and offer additional advice on how FRA should proceed with the final rule. Due to time constraints, FRA elected to seek advice from the working group regarding the public comments and possible revisions to the NPRM rather than asking the group and the full RSAC to formally provide recommendation regarding the final rule.

**9. Payments or gifts to respondents.**

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

**10. Assurance of confidentiality.**

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

**11. Justification for any questions of a sensitive nature.**

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

**12. Estimate of burden hours for information collected.**

*Note: Based on the latest FRA data, the total number of railroads and/or track owners responsible for bridges and subject to the requirements of this Part is 725, which includes 7 Class I, 10 Class II, 27 passenger and commuter railroads, and 681 Class III railroads.*

**Subpart A – General**

Responsibility for Compliance (§ 237.3)

- A. Except as provided in paragraph (b) of this section, an owner of track to which this Part applies is responsible for compliance.

If an owner of track to which this Part applies assigns responsibility for the bridges which carry the track to another person (by lease or otherwise), written notification of the

assignment must be provided to the appropriate FRA Regional Office at least 30 days in advance of the assignment. The notification may be made by any party to that assignment, but must be in writing and include the following information:

- (1) The name and address of the track owner;
- (2) The name and address of the person to whom responsibility is assigned (assignee);
- (3) A statement of the exact relationship between the track owner and the assignee;
- (4) A precise identification of the track segment and the individual bridges in the assignment;
- (5) A statement as to the competence and ability of the assignee to carry out the bridge safety duties of the track owner under this by Part; and
- (6) A statement signed by the assignee acknowledging the assignment to him of responsibility for purposes of compliance with this Part.

FRA estimates that it will receive approximately 15 written notifications under the above requirement. It is estimated that it will take approximately 90 minutes to complete each written notification and 30 minutes to complete each signed statement by the assignee. Total annual burden for this requirement is 30 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	90 minutes + 30 minutes
Frequency of Response:	On occasion
Annual number of Responses:	15 written notifications + 15 signed statements
Annual Burden:	30 hours

**Calculation:** 15 written notifications x 90 min. + 15 signed statements x 30 min. = 30 hours

- B. Where an owner of track to which this Part applies has previously assigned responsibility for a segment of track to another person as prescribed in 49 CFR 213.5(c), additional notification to FRA is not required, and the Administrator may hold the track owner or the assignee or both responsible for compliance with this Part and subject to penalties under § 237.11.

*The burden associated with track assignments under 49 CFR 213.5(c) is approved under OMB No. 2130-0010. Consequently, there is no additional burden associated with this requirement.*

Total annual burden for this entire requirement is 30 hours.

Penalties (§ 237.7)

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.

*The burden for records and reports is included under those sections of this document. Consequently, there is no additional burden involved under this provision.*

Waivers (237.9)

Any 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 that person's responsibility for compliance with that requirement while the petition is being considered. Each petition for waiver must be filed in the manner and contain the information required by part 211 of this chapter.

FRA estimates that it will receive approximately six (6) waiver petitions each year under the above requirement. It is estimated that it will take approximately four (4) hours to gather the necessary information, and complete and send each waiver petition. Total annual burden for this requirement is 24 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	4 hours
Frequency of Response:	Annually
Annual number of Responses:	6 waiver petitions
Annual Burden:	24 hours

**Calculation:** 6 waiver petitions x 4 hrs. = 24 hours

**Subpart B – Railroad Bridge Safety Assurance**

Adoption of Bridge Management Program (§ 237.31; 237.33)

Each track owner must adopt a bridge safety management program to prevent the deterioration of railroad bridges by preserving their capability to safely carry the traffic to be operated over them; and reduce the risk of human casualties, environmental damage, and disruption to the Nation's railroad transportation system that would result from a

catastrophic bridge failure, not later than the dates in the following schedule:

(a) March 14, 2011: Class I carriers;

(b) March 14, 2011: Owners of track segments which are part of the general railroad system of transportation and which carry more than 10 scheduled passenger trains per week;

(c) September 13, 2011: Class II carriers to which paragraph (b) of this section does not apply;

(d) September 13, 2012: All other track owners subject to this Part and not described in paragraphs (a) through (c) of this section.

Since this requirement for existing railroads has already been fulfilled, the only burden that FRA needs to account for is the one for new railroads. FRA estimates that approximately five (5) new railroads will start-up each year, and will need to develop/adopt bridge safety management programs. It is estimated that it will take each railroad approximately 24 hours develop/adopt bridge safety management program. Total annual burden for this requirement is 120 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	24 hours
Frequency of Response:	Annually
Annual number of Responses:	5 bridge safety management programs
Annual Burden:	120 hours

**Calculation:** 5 bridge mgt. safety programs x 24 hrs. = 120 hours

#### Content of Bridge Management Programs (§ 237.35)

Each bridge management program adopted in compliance with this Part must include, as a minimum, the following:

(a) An accurate inventory of railroad bridges, which shall include a unique identifier for each bridge, its location, configuration, type of construction, number of spans, span lengths, and all other information necessary to provide for the management of bridge safety.

(b) A record of the safe load capacity of each bridge.

(c) A provision to obtain and maintain the design documents of each bridge if available, and to document all repairs, modifications, and inspections of each bridge.

(d) A bridge inspection program covering as a minimum: (1) Inspection personnel safety considerations; (2) Types of inspection including required detail; (3) Definitions of defect levels along with associated condition codes if condition codes are used; (4) The method of documenting inspections including standard forms or formats; (5) Structure type and component nomenclature, and (6) Numbering or identification protocol for substructure units, spans, and individual components. *(Note: Bridge owners must also incorporate minimum standards in railroad bridge management programs for qualification and designation of persons who perform safety-critical functions that affect the integrity and safety of railroad bridges as stipulated in § 237.51, § 237.53, and § 237.55. Further, bridge owners must incorporate standards in railroad bridge management programs to prevent the operation of equipment that could damage a bridge by exceeding safe stress levels in bridge components or by extending beyond the horizontal or vertical clearance limits of the bridge. Moreover, bridge owners must incorporate in railroad bridge management programs minimum standards to provide for an effective program of bridge inspections. Additionally, bridge owners must incorporate minimum standards in railroad bridge management programs that provide for adequate design and effective supervision of bridge modification and repair which will materially modify the capacity of the bridge or the stresses in any primary load-carrying component of the bridge. Finally, the bridge owner must incorporate minimum standards in railroad bridge management programs to provide for verification of the effectiveness of the program and the accuracy of the information developed thereby, by the bridge owner as well as by the Federal Railroad Administration.*

*The burden for these requirements is included above under § 237.33. Consequently, there is no additional burden associated with this requirement.*

### **Subpart C – Qualifications and Designations of Responsible Persons**

#### Designation of individuals (§ 237.57)

Each track owner must designate those individuals qualified as railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors. Each individual designation must include the basis for the designation in effect and must be recorded.

In the previous estimate, FRA did not account for Class III railroads and the approximately 2,4000 employees designated and recorded as railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors in the first year under the above requirement. However, since OMB approvals are usually for three years, this number must be divided by three to determine the average annual number of designations. Thus, approximately 800 recorded designations for Class III railroads will be made under the above requirement. Additionally, FRA estimates that another 200

recorded designations will be made each year by Class I and Class II railroads as a result of changes in railroad personnel. Thus, a total of 1,000 recorded designations will be made each year under the above requirement. It is estimated that it will take approximately 30 minutes to designate and record each individual. Total annual burden for this requirement is 500 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	30 minutes
Frequency of Response:	On occasion
Annual number of Responses:	1,000 recorded designations
Annual Burden:	500 hours

**Calculation:** 1,000 recorded designations x 30 min. = 500 hours

**Subpart D – Capacity of Bridges**

Determination of bridge load capacities (§ 237.71)

- (a) Each track owner must determine the load capacity of each of its railroad bridges. The load capacity need not be the ultimate or maximum load capacity but a safe load capacity.
- (b) The load capacity of each bridge must be documented in the track owner’s management program, together with the method by which the capacity was determined.
- (c) The determination of load capacity must be made by a railroad bridge engineer using appropriate engineering methods and standards that are particularly applicable to railroad bridges.
- (d) Bridge load capacity may be determined from existing design and modification records of a bridge, provided that the bridge substantially conforms to its recorded configuration. Otherwise, the load capacity of a bridge must be determined by measurement and calculation of the properties of its individual components, or other

methods as determined by a railroad bridge engineer.

(e) If a track owner has a group of bridges for which the load capacity has not already been determined, the owner must schedule the evaluation of those bridges according to their relative priority, as established by a railroad bridge engineer. The initial determination of load capacity must be completed not later than five (5) years following the required date for adoption of the track owner's bridge management program in conformance with § 237.31.

(f) Where a bridge inspection reveals that, in the determination of the railroad bridge engineer, the condition of a bridge or bridge component might adversely affect the ability of the bridge to carry the traffic being operated, a new capacity must be determined.

(g) Bridge load capacity may be expressed in terms of numerical values related to a standard system of bridge loads, but shall, in any case, be stated in terms of weight and length of individual or combined cars and locomotives, for the use of transportation personnel.

(h) Bridge load capacity may be expressed in terms of both normal and maximum load conditions. Operation of equipment that produces forces greater than the normal capacity shall be subject to any restrictions or conditions that may be prescribed by a railroad bridge engineer.

FRA estimates that 2,000 bridges will have their load capacity determined by a railroad bridge engineer each year under the above requirement. It is estimated that it will take approximately eight (8) hours to determine each bridge capacity. Total annual burden for this requirement is 16,000 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	8 hours
Frequency of Response:	Annually
Annual number of Responses:	2,000 bridge capacity determinations
Annual Burden:	16,000 hours

**Calculation:** 2,000 bridge capacity determination x 8 hrs. = 16,000 hours

Total annual burden for this entire requirement is 16,000 hours.

#### Protection of Bridges from Over-Weight and Over-Dimension Loads (§ 237.73)

(a) Each track owner must issue instructions to its personnel who are responsible for the configuration and operation of trains over its bridges to prevent the operation of cars, locomotives, and other equipment that would exceed the capacity or dimensions of its bridges.

(b) The instructions regarding weight must be expressed in terms of maximum equipment weights, and either minimum equipment lengths or axle spacing.

(c) The instructions regarding dimensions shall be expressed in terms of feet and inches of cross section and equipment length, in conformance with common railroad industry practice for reporting dimensions of exceptional equipment in interchange in which height above top-of-rail is shown for each cross section measurement, followed by the width of the car or the shipment at that height.

(d) The instructions may apply to individual structures or to a defined line segment or group(s) of line segments where the published capacities and dimensions are within the limits of all structures on the subject line segments.

FRA estimates that approximately 2,000 instructions will be issued by track owners each year under the above requirement. It is estimated that it will take approximately two (2) hours to develop and issue the required instructions. Total annual burden for this requirement is 4,000 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	2 hours
Frequency of Response:	Annually
Annual number of Responses:	2,000 issued instructions
Annual Burden:	4,000 hours

**Calculation:** 2,000 issued instructions x 2 hrs. = 4,000 hours

## **Subpart E – Bridge Inspection**

### Scheduling of Bridge Inspections (§ 237.101)

(a) Each bridge management program must include a provision for scheduling an inspection for each bridge in railroad service at least once each calendar year, with not more than 540 days between any successive inspections.

(b) A bridge must be inspected more frequently than provided for in the bridge management program when a railroad bridge engineer determines that such inspection frequency is necessary considering conditions noted on prior inspections, the type and configuration of the bridge, and the weight and frequency of traffic carried on the bridge.

(c) Each bridge management program must define requirements for the special inspection of a bridge to be performed whenever the bridge is involved in an event which might have compromised the integrity of the bridge, including, but not limited to, flood, fire, earthquake, derailment, or vehicular or vessel impact.

(d) Any railroad bridge that has not been in railroad service and has not been inspected in accordance with this section within the previous 540 days must be inspected and the inspection report reviewed by a railroad bridge engineer prior to the resumption of railroad service.

*The burden for railroad bridge management programs is included above under that of § 237.33. Consequently, there is no additional burden associated with this part of the above requirement.*

*The burden for bridge inspections and the corresponding records is included below under that of § 237.109 below. Consequently, there is no additional burden associated with these requirements.*

#### Bridge Inspection Procedures (§ 237.103)

(a) Each bridge management program must specify the procedure to be used for inspection of individual bridges or classes and types of bridges.

(b) The bridge inspection procedures must be as specified by a railroad bridge engineer who is designated as responsible for the conduct and review of the inspections. The inspection procedures must incorporate the methods, means of access, and level of detail to be recorded for the various components of that bridge or class of bridges.

(c) The bridge inspection procedures must ensure that the level of detail and the inspection procedures are appropriate to: the configuration of the bridge; conditions found during previous inspections; the nature of the railroad traffic moved over the bridge (including equipment weights, train frequency and length, levels of passenger and hazardous materials traffic); and vulnerability of the bridge to damage.

(d) The bridge inspection procedures must be designed to detect, report and protect deterioration and deficiencies before they present a hazard to safe train operation.

*The burden for bridge management programs is included under that of § 237.33 above. Consequently, there is no additional burden associated with this requirement.*

*The burden for designation of bridge engineers is included under that of § 237.57 above. Consequently, there is no additional burden associated with this requirement.*

#### Special Inspections (§ 237.105)

(a) Each bridge management program must prescribe a procedure for protection of train operations and for inspection of any bridge that might have been damaged by a natural or accidental event, including, but not limited to, flood, fire, earthquake, derailment, or

vehicular or vessel impact.

(b) Each bridge management program must provide for the detection of scour or deterioration of bridge components that are submerged, or that are subject to water flow.

*The burden for bridge management programs is included under that of § 237.33. Consequently, there is no additional burden associated with this requirement.*

FRA estimates that approximately 7,500 special inspections will be performed each year due to damage from natural or accidental causes under the above requirement. It is estimated that it will take approximately 12.50 hours to complete each special inspection and accompanying report. Total annual burden for this requirement is 93,750 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	12.50 hours
Frequency of Response:	Annually
Annual number of Responses:	7,500 special bridge inspections reports/records
Annual Burden:	93,750 hours
<b>Calculation:</b>	7,500 special bridge inspection reports/records x 12.50 hrs. = 93,750 hours

Additionally, FRA estimates that approximately 50 additional special underwater bridge inspections, involving divers, will be completed each year in compliance with the above requirement. It is estimated that it will take approximately 40 hours to complete each inspection and accompanying report and place this report/record in the location designated in the bridge management program. Total annual burden for this requirement is 2,000 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	40 hours
Frequency of Response:	Annually
Annual number of Responses:	50 bridge insp. reports/records
Annual Burden:	2,000 hours

**Calculation:** 50 bridge insp. reports/records x 40 hrs. = 2,000 hours

Total annual burden for this requirement is 95,750 hours (93,750 + 2,000).

Conduct of Bridge Inspections (§ 237.107); Bridge Inspection Records (§ 237.109)

Bridge inspections must be conducted under the direct supervision of a designated bridge

inspector, who shall be responsible for the accuracy of the results and the conformity of the inspection to the bridge management program.

(a) Each track owner to which this Part applies must keep a record of each inspection required to be performed on those bridges under this Part.

(b) Each record of an inspection under the bridge management program prescribed in this Part must be prepared from notes taken on the day(s) the inspection is made, supplemented with sketches and photographs as needed. Such record will be dated with the date(s) the physical inspection takes place and the date the record is created, and it will be signed or otherwise certified by the person making the inspection.

(c) Each bridge management program shall specify that every bridge inspection report must include, as a minimum, the following information:

(1) A precise identification of the bridge inspected.

(2) The date on which the physical inspection was completed.

(3) The identification and written or electronic signature of the inspector.

(4) The type of inspection performed, in conformance with the definitions of inspection types in the bridge management program.

(5) An indication on the report as to whether any item noted thereon requires expedited or critical review by a railroad bridge engineer, and any restrictions placed at the time of the inspection.

(6) The condition of components inspected, which may be in a condition reporting format prescribed in the bridge management program, together with any narrative descriptions necessary for the correct interpretation of the report.

(7) When an inspection does not encompass the entire bridge, the portions of the bridge which were inspected must be identified in the report.

(d) An initial report of each bridge inspection must be placed in the location designated in the bridge management program within 30 calendar days of the completion of the inspection unless the complete report is filed first. The initial report must include the information required by paragraphs (c)(1) through (c)(5) of this section.

(e) A complete report of each bridge inspection, including as a minimum the information required in paragraphs (c)(1) through (c)(6) of this section, must be placed in the location designated in the bridge management program within 120 calendar days of the completion of the inspection.

(f) Each bridge inspection program must specify the retention period and location for bridge inspection records. The retention period must be no less than two years following the completion of the inspection. Records of underwater inspections must be retained until the completion and review of the next underwater inspection of the bridge.

*The burden for bridge management programs is included under that of § 237.33 above. Consequently, there is no additional burden associated with this part of the requirement*

FRA estimates that there are approximately 100,000 railroad bridges in the United States. Most of these railroad bridges, approximately 85 percent, are currently being inspected by railroads on annual basis. Consequently, that leaves approximately 15 percent of these bridges or about 15,000 bridges that will need to be inspected each year. Further, an additional three percent of these 15,000 bridges or approximately 450 bridges will need to be re-inspected each year. Thus, a total of approximately 15,450 bridges will need to be inspected each year. It is estimated that it will take approximately four (4) hours to inspect each bridge and complete the required inspection report. Total annual burden for this requirement is 61,800 hours. *(Note: The above estimate includes both routine bridge inspections and bridge inspections resulting from damage caused by natural events, such as flood, earthquake, and fires, and by accidental events, such as derailments and vehicular or vessel impacts.)*

Respondent Universe:	725 Railroads/Bridge Owners
Burden time per response:	4 hours
Frequency of Response:	Annually
Annual number of Responses:	15,450 bridge inspections/reports
Annual Burden:	61,800 hours

**Calculation:** 15,450 bridge inspections/reports x 4 hrs. = 61,800 hours

Additionally, under the above requirements, FRA estimates that approximately 15,450 records will be completed each year. It is estimated that it will take approximately one (1) hour to complete and file each record in the appropriate location. Total annual burden for this requirement is 15,450 hours.

Respondent Universe:	725 Railroads/Bridge Owners
Burden time per response:	1 hour
Frequency of Response:	Annually
Annual number of Responses:	15,450 bridge inspections records
Annual Burden:	15,450 hours

**Calculation:** 15,450 bridge inspections records x 1 hr. = 15,450 hours

(g) If a bridge inspector, supervisor, or engineer discovers a deficient condition on a bridge that affects the immediate safety of train operations, that person must report the condition as promptly as possible to the person who controls the operation of trains on the bridge in order to protect the safety of train operations.

FRA estimates that approximately 50 deficient conditions on a bridge affecting the immediate safety of trains and thus 50 reports will be made under the above requirement. It is estimated that it will take approximately 30 minutes to detect the deficient condition and make the necessary report. Total annual burden for this requirement is 25 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	30 minutes
Frequency of Response:	On occasion
Annual number of Responses:	50 reports
Annual Burden:	25 hours
<b><u>Calculation:</u></b>	50 reports x 30 min. = 25 hours

Total annual burden for this entire requirement is 77,275 hours (61,800 + 15,450 + 25).

Review of Bridge Inspection Reports (§ 237.111)

Bridge inspection reports will be reviewed by railroad bridge supervisors and railroad bridge engineers to:

- (a) Determine whether inspections have been performed in accordance with the prescribed schedule and specified procedures.
- (b) Evaluate whether any items on the report represent a present or potential hazard to safety.
- (c) Prescribe any modifications to the inspection procedures for that particular bridge.
- (d) Schedule any repairs or modifications to the bridge required to maintain its structural integrity.
- (e) Determine the need for further higher-level review.

FRA estimates that the great majority of inspection reports will not required higher level

or engineering review. However, FRA estimates that there will be approximately 2,000 inspection reports each year that will need to be reviewed by railroad bridge engineers. It is estimated that it will take approximately 30 minutes for a railroad bridge engineer to review/evaluate each bridge inspection report. Total annual burden for this requirement is 1,000 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	30 minutes
Frequency of Response:	Annually
Annual number of Responses:	2,000 bridge insp. report reviews/evaluations
Annual Burden:	1,000 hours

**Calculation:** 2,000 br. insp. rpt reviews/evals x 30 min. = 1,000 hours

Moreover, in light of these bridge inspection report reviews/evaluations, FRA estimates that approximately 200 bridge inspection procedure modifications will be prescribed by railroad bridge engineers each year under the above requirement. It is estimated that it will take approximately 30 minutes to prescribe each bridge inspection modification procedure. Total annual burden for this requirement is 100 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	30 minutes
Frequency of Response:	Annually
Annual number of Responses:	200 bridge insp. proc. modifications
Annual Burden:	100 hours

**Calculation:** 200 bridge insp. proc. modifications x 30 min. = 100 hours

*The burden for scheduling any repairs or modifications to the bridge is already included above under that of bridge inspection reviews/evaluations. Consequently, there is no additional burden associated with this requirement.*

Total annual burden for this entire requirement is 1,100 hours (1,000 + 100).

## **Subpart F – Repair and Modification of Bridges**

### Design (§ 237.131)

Each repair or modification which materially modifies the capacity of a bridge or the stresses in any primary load-carrying component of a bridge must be designed by a railroad bridge engineer. The design must specify the manner in which railroad traffic or other live loads may be permitted on the bridge while it is in a state of being modified or

repaired. Designs and procedures for repair or modification of bridges of a common configuration, such as timber trestles, or instructions for in-kind replacement of bridge components, may be issued as a common standard.

FRA estimates that approximately 1,250 bridge modification/repair designs will be completed by railroad bridge engineers each year under the above requirement. It is estimated that it will take approximately 16 hours to complete each bridge modification/repair design. Total annual burden for this requirement is 20,000 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	16 hours
Frequency of Response:	Annually
Annual number of Responses:	1,250 modification/repair designs
Annual Burden:	20,000 hours

**Calculation:** 1,250 modification/repair designs x 16 hrs. = 20,000 hours

Additionally, FRA estimates that, for these approximately 1,250 bridge modification/repairs, railroad bridge engineers/inspectors will spend approximately 1.5 hours reviewing/supervising these efforts to ensure that they are done properly. Total annual burden for this requirement is 1,875 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	1.50 hours
Frequency of Response:	Annually
Annual number of Responses:	1,250 bridge modification/repair reviews/supervisory efforts
Annual Burden:	1,875 hours

**Calculation:** 1,250 bridge modification/repair reviews x 1.50 hrs. = 1,875 hours

Where the common standard addresses procedures and methods that could materially modify the capacity of a bridge or the stresses in any primary load-carrying component of a bridge, the standard must be designed and issued by a railroad bridge engineer.

FRA estimates that approximately 50 standards will be designed and issued by railroad bridge engineers under the above requirement. It is estimated that it will take approximately 24 hours to design and issue the necessary standard. Total annual burden for this requirement is 1,200 hours.

Respondent Universe:	725 Railroads/Track
----------------------	---------------------

	Owners
Burden time per response:	24 hours
Frequency of Response:	On occasion
Annual number of Responses:	50 standards
Annual Burden:	1,200 hours
<b><u>Calculation:</u></b>	50 standards x 24 hrs. = 1,200 hours

Total annual burden for this entire requirement is 23,075 hours (20,000 + 1,875 + 1,200).

Supervision (§ 237.133)

Each repair or modification to a bridge pursuant to this Part must be performed under the immediate supervision of a railroad bridge supervisor as defined in § 237.55 of this Part who is designated and authorized by the track owner to supervise the particular work to be performed. The railroad bridge supervisor must ensure that railroad traffic or other live loads permitted on the bridge under repair or modification are in conformity with the specifications in the design.

*The burden for this requirement is already included under that of § 237.57 above. Consequently, there is no additional burden associated with requirement.*

**Subpart G – Documentation, Records, and Audits of Bridge Management Programs**

Audits: General (§ 237.151)

Each program adopted to comply with this Part must include provisions for auditing the effectiveness of the several provisions of that program, including the validity of bridge inspection reports and bridge inventory data, and the correct application of movement restrictions to railroad equipment of exceptional weight or configuration.

*The burden for bridge management programs is already included under that of § 237.33 above. Consequently, there is no additional burden associated with requirement.*

Audit of Inspections (§ 237.153)

(a) Each bridge management program must incorporate provisions for an internal audit to determine whether the inspection provisions of the program are being followed, and whether the program itself is effectively providing for the continued safety of the subject bridges.

*The burden for bridge management programs is already included under that of § 237.33 above. Consequently, there is no additional burden associated with this requirement.*

(b) The inspection audit must include an evaluation of a representative sampling of bridge inspection reports at the bridges noted on the reports to determine whether the reports accurately describe the condition of the bridge.

FRA estimates that all 725 railroads -- 7 Class I, 10 Class II, 27 passenger and commuter railroads, and 681 Class III -- will be affected by the above requirement. Consequently, approximately 725 inspection audits will be completed each year under the above requirement. It is estimated that each Class I railroad inspection audit will take approximately 80 hours to complete, that each Class II inspection audit will take approximately 24 hours to complete, and that each Class III inspection audit will take approximately six (6) hours to complete. Total annual burden for this requirement is 5,534 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	80 hours/24 hours/6 hours
Frequency of Response:	Annually
Annual number of Responses:	725 inspection audits
Annual Burden:	5,534 hours

**Calculation:** 7 inspection audits x 80 hrs. + 37 inspection audits x 24 hrs. + 681 inspection audits x 6 hrs. = 5,534 hours

#### Documents and Records (§ 237.155)

Each track owner required to implement a bridge management program and keep records under this part must make those program documents and records available for inspection and reproduction by the Federal Railroad Administration.

#### (a) *Electronic Recordkeeping; general.*

For purposes of compliance with the recordkeeping requirements of this part, a track owner may create and maintain any of the records required by this Part through electronic transmission, storage, and retrieval, provided that all of the following conditions are met:

- (1) The system used to generate the electronic record meets all requirements of this subpart;
- (2) The electronically generated record contains the information required by this Part;
- (3) The track owner monitors its electronic records database through sufficient number of monitoring indicators to ensure a high degree of accuracy for these records;
- (4) The track owner shall train its employees who use the system on the proper use of the electronic recordkeeping system; and
- (5) The track owner maintains an information technology security program adequate to ensure the integrity of the system, including the prevention of unauthorized access to the program logic or individual records.

(b) *System Security.*

The integrity of bridge inspection records must be protected by a security system that incorporates a user identity and password, or a comparable method, to establish appropriate levels of program and record data access meeting all of the following standards: (1) No two individuals have the same electronic identity; (2) A record cannot be deleted or altered by any individual after the record is certified by the employee who created the record; (3) Any amendment to a record is either – (i) Electronically stored apart from the record it amends, (ii) Electronically attached to the record as information without changing the original record; (4) Each amendment to a record uniquely identifies the person making the amendment; and (5) The electronic system provides for the maintenance of inspection records as originally submitted without corruption or loss of data.

*The burden for records is included under that of § 237.109 above. Consequently, there is no additional or other burden associated with this requirement.*

FRA estimates that approximately five (5) monitoring and information technology security systems for electronic recordkeeping will be established by railroads to comply with the above requirements. It is estimated that it will take approximately 80 hours to develop/implement these systems. Total annual burden for this requirement is 400 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	80 hours
Frequency of Response:	On occasion
Annual number of Responses:	5 monitoring/info. tech. security sys.
Annual Burden:	400 hours

**Calculation:** 5 monitoring and security systems x 80 hrs. = 400 hours

Additionally, FRA estimates that approximately 100 railroad bridge employees will be trained in the proper use of their railroads' electronic recordkeeping system under the above requirement. It is estimated that it will take approximately eight (8) hours to train each employee. Total annual burden for this requirement is 800 hours.

Respondent Universe:	725 Railroads/Track Owners
Burden time per response:	8 hours
Frequency of Response:	On occasion
Annual number of Responses:	100 trained bridge employees
Annual Burden:	800 hours

**Calculation:** 100 trained bridge employees x 8 hrs. = 800 hours

Total annual burden for this entire requirement is 1,200 hours (400 + 800).

## **Appendix A to Part 237 - - Supplemental Agency Statement of Policy on the Safety of Railroad Bridges**

### **GUIDELINES**

#### 1. Responsibility for Safety of Railroad Bridges.

The track owner should maintain current information regarding loads that may be operated over the bridge, either from its own engineering evaluations or as provided by a competent engineer representing the bridge owner. Information on permissible loads may be communicated by the bridge owner either in terms of specific car and locomotive configurations and weights, or as values representing a standard railroad bridge rating reference system. The most common standard bridge rating reference system incorporated in the Manual for Railway Engineering of the American Railway Engineering and Maintenance of Way Association is the dimensional and proportional load configuration devised by Theodore Cooper. Other reference systems may be used where convenient, provided their effects can be defined in terms of shear, bending and pier reactions as necessary for a comprehensive evaluation and statement of the capacity of a bridge.

*The burden for this provision is included under that of § 237.33 and § 237.71 above. Consequently, there is no additional or other burden associated with this provision.*

The owner of the track on a bridge should advise other railroads operating on that track of the maximum loads permitted on the bridge stated in terms of car and locomotive configurations and weights. No railroad should operate a load which exceeds those limits without specific authority from, and in accordance with restrictions placed by, the track owner.

*Under existing industry practice, this is a usual and customary procedure. Consequently, there is no burden associated with this provision.*

#### 2. Capacity of Railroad Bridges.

(a) The safe capacity of bridges should be determined pursuant to § 237.71.

(b) Proper analysis of a bridge requires knowledge of the actual dimensions, materials and properties of the structural members of the bridge, their condition, and the stresses imposed in those members by the service loads.

(c) The factors which were used for the design of a bridge can generally be used to determine and rate the load capacity of a bridge provided:

(i) The condition of the bridge has not changed significantly, and

(ii) The stresses resulting from the service loads can be correlated to the stresses for which the bridge was designed or rated.

*The burden for this provision is included under that of § 237.71 above. Consequently, there is no additional or other burden associated with this provision.*

### 3. Railroad Bridge Loads

(a) Control of loads is governed by § 237.73.

(b) Authority for exceptions. Equipment exceeding the nominal weight restriction on a bridge should be operated only under conditions determined by a competent railroad bridge engineer who has properly analyzed the stresses resulting from the proposed loads and has determined that the proposed operation can be conducted safely without damaging the bridge.

*Under existing industry practice, this is a usual and customary procedure. Consequently, there is no burden associated with this provision.*

### 4. Railroad Bridge Records

(a) The organization responsible for the safety of a bridge should keep design, construction, maintenance and repair records readily accessible to permit the determination of safe loads. Having design or rating drawings and calculations that conform to the actual structure greatly simplifies the process of making accurate determinations of safe bridge loads. This provision is governed by §237.35.

*The burden for this provision is included under that of § 237.33 and § 237.35 above. Consequently, there is no additional or other burden associated with this provision.*

(b) Organizations acquiring railroad property should obtain original or usable copies of all bridge records and drawings, and protect or maintain knowledge of the location of the original records.

*Under existing industry practice, this is a usual and customary procedure. Consequently, there is no burden associated with this provision.*

### 6. Periodic Inspections of Railroad Bridges

(a) Periodic bridge inspections by competent inspectors are necessary to determine whether a structure conforms to its design or rating condition and, if not, the degree of nonconformity. See § 237.101. Section 237.101(a) calls for every railroad bridge to be inspected at least once in each calendar year. Deterioration or damage may occur during the course of a year regardless of the level of traffic that passes over a bridge. Inspections at more frequent intervals may be required by the nature or condition of a structure or intensive traffic levels.

*The burden for this provision is included under that of § 237.101 and § 237.109 above. Consequently, there is no additional or other burden associated with this provision.*

#### 7. Underwater Inspections of Railroad Bridges

(a) Inspections of bridges should include measuring and recording the condition of substructure support at locations subject to erosion from moving water.

(b) Stream beds often are not visible to the inspector. Indirect measurements by sounding, probing, or any other appropriate means are necessary in those cases. A series of records of those readings will provide the best information in the event unexpected changes suddenly occur. Where such indirect measurements do not provide the necessary assurance of foundation integrity, diving inspections should be performed as prescribed by a competent engineer.

*The burden for this provision is included under that of § 237.105 above. Consequently, there is no additional or other burden associated with this provision.*

#### 8. Seismic Considerations

(a) Owners of bridges should be aware of the risks posed by earthquakes in the areas in which their bridges are located. Precautions should be taken to protect the safety of trains and the public following an earthquake.

(b) Contingency plans for seismic events should be prepared in advance, taking into account the potential for seismic activity in an area.

(c) The predicted attenuation of ground motion varies considerably within the United States. Local ground motion attenuation values and the magnitude of an earthquake both influence the extent of the area affected by an earthquake. Regions with low frequency of seismic events produce less data from which to predict attenuation factors. That uncertainty should be considered when designating the area in which precautions should be taken following the first notice of an earthquake. In fact, earthquakes in such regions

might propagate their effects over much wider areas than earthquakes of the same magnitude occurring in regions with frequent seismic activity.

*The burden for this provision is included under that of § 237.105 above. Consequently, there is no additional or other burden associated with this provision.*

#### 9. Special Inspections of Railroad Bridges

Requirements for special inspections of railroad bridges are found in § 237.105.

*The burden for special inspections of railroad bridges is included under that of § 237.105 above. Consequently, there is no additional or other burden associated with this provision.*

#### 10. Railroad Bridge Inspection Records

(a) The requirement for recording and reporting bridge inspections is found in § 237.109.

(b) Information from bridge inspection reports should be incorporated into a bridge management program to ensure that exceptions on the reports are corrected or accounted for. A series of inspection reports prepared over time should be maintained so as to provide a valuable record of trends and rates of degradation of bridge components. The reports should be structured to promote comprehensive inspections and effective communication between an inspector and an engineer who performs an analysis of a bridge.

(c) An inspection report should be comprehensible to a competent person without interpretation by the reporting inspector.

*The burden for this provision is included under that of § 237.109 above. Consequently, there is no additional or other burden associated with this provision.*

#### 11. Railroad Bridge Inspectors and Engineers

(a) Bridge inspections should be performed by technicians whose training and experience enable them to detect and record indications of distress on a bridge. Inspectors should provide accurate measurements and other information about the condition of the bridge in enough detail so that an engineer can make a proper evaluation of the safety of the bridge. Qualifications of personnel are addressed in Subpart C to part 237.

(b) Accurate information about the condition of a bridge should be evaluated by an engineer who is competent to determine the capacity of the bridge. The inspector and the evaluator often are not the same individual. The quality of the bridge evaluation depends on the quality of the communication between them. Review of inspection reports is addressed in § 237.111.

*The burden for this provision is included under that of §§ 237.51, 237.53, 237.55, 237.57, and § 237.111 above. Consequently, there is no additional or other burden associated with this provision.*

## 12. Scheduling Inspections

(a) A bridge management program should include a means to ensure that each bridge under the program is inspected at the frequency prescribed for that bridge by a competent engineer. Scheduling of bridge inspections is addressed in § 237.101.

(b) Bridge inspections should be scheduled from an accurate bridge inventory list that includes the due date of the next inspection.

*The burden for this provision is included under that of § 237.101 above. Consequently, there is no additional or other burden associated with this provision.*

## 14. Railroad Implementation of Bridge Safety Programs

FRA recommends that each track owner or other entity which is responsible for the integrity of bridges which support its track should comply with the intent of this regulation by adopting and implementing an effective and comprehensive program to ensure the safety of its bridges. The bridge safety program should incorporate the following essential elements, applied according to the configuration of the railroad and its bridges. The basis of the program should be in one comprehensive and coherent document which is available to all railroad personnel and other persons who are responsible for the application of any portion of the program. The program should include:

(a) Clearly defined roles and responsibilities of all persons who are designated or authorized to make designations regarding the integrity of the track owner's bridges. The definitions may be made by position or by individual;

(b) Provisions for a complete inventory of bridges that carry the owner's track, to include the following information on each bridge:

- (1) A unique identifier, such as milepost location and a subdivision code;
- (2) The location of the bridge by nearest town or station, and geographic coordinates;
- (3) The name of the geographic features crossed by the bridge;
- (4) The number of tracks on the bridge;
- (5) The number of spans in the bridge;
- (6) The lengths of the spans; and
- (7) Types of construction of:

- (i) Substructure;
  - (ii) Superstructure; and
  - (iii) Deck;
  - (8) Overall length of the bridge.
  - (9) Dates of:
    - (i) Construction;
    - (ii) Major renovation; and
    - (iii) Strengthening;
  - (10) Identification of entities responsible for maintenance of the bridge or its different components;
- (c) Known capacity of its bridges as determined by rating by competent railroad bridge engineer or by design documents;
- (d) Procedures for the control of movement of high, wide or heavy loads exceeding the nominal capacity of bridges;
- (e) Instructions for the maintenance of permanent records of design, construction, modification, and repair;
- (f) Railroad-specific procedures and standards for design and rating of bridges;
- (g) Detailed bridge inspection policy, including:
- (1) Inspector Qualifications.
    - (i) Bridge experience or appropriate educational training;
    - (ii) Training on bridge inspection procedures;
    - (iii) Training on Railroad Workplace Safety;
  - (2) Type and frequency of inspection; including
    - (i) Periodic (at least annually);
    - (ii) Underwater;
    - (iii) Special.;
    - (iv) Seismic;
  - (v) cursory inspections of overhead bridges that are not the responsibility of the railroad;
  - (3) Inspection schedule for each bridge;
  - (4) Documentation of inspections; including
    - (i) Date;
    - (ii) Name of inspector;
    - (iii) Reporting Format; and
    - (iv) Coherence of information;
  - (5) Inspection Report Review Process;
  - (6) Record retention;
  - (7) Tracking of critical deficiencies to resolution.

(h) Provide for the protection of train operations following an inspection, noting a critical deficiency, repair, modification or adverse event and should include:

(1) A listing of qualifications of personnel permitted to authorize train operations following an adverse event; and (2) Detailed internal program audit procedures to ensure compliance with the provisions of the program.

*The burden for this provision is included under that of §§§ 237.33, 237.35, 237.57, 237.71, 237.73, 237.131, 237.153, and 237.155 above. Consequently, there is no additional or other burden associated with this provision.*

Total annual burden under this entire information collection is 224,608 hours.

**13. Estimate of total annual costs to respondents.**

There are no additional costs to respondents other than those spelled out in the regulatory evaluation accompanying this final rule and the burden hours delineated above.

**14. Estimate of Cost to Federal Government.**

FRA’s railroad bridge engineers and safety inspectors will oversee compliance with this rule as part of their normal duties. Consequently, there are no additional costs to the Federal Government associated with it.

**15. Explanation of program changes and adjustments.**

The burden for this information collection has **decreased** by **32,290 hours** from the last submission. The decrease in burden is solely the result of **adjustments**, which are completely delineated in the table below.

**TABLE FOR ADJUSTMENTS**

Part 237 Sec./ Form Number	Responses & Avg. Time (Previous Submission)	Responses & Avg. Time (This Submission)	Burden Hours (Previous Submission)	Burden Hours (This Submission)	Difference (plus/minus)
237.9 – Waivers	12 waivers 4 hours	6 waivers 4 hours	48 hours	24 hours	-- 24 hours -- 6 responses
237.31/33 – Bridge Management Programs – Adoption by railroads/track owners	693 programs 29 hours	5 programs 24 hours	20,100 hours	120 hours	-- 19,980 hours -- 688 resp.

237.57 – Designation of Individuals	200 designation 30 minutes	1,000 designation 30 minutes	100 hours	500 hours	+ 400 hours + 800 resp.
237.107/109 – Bridge Inspections/Reports	18,000 inspections/rpts. 4 hours	15,450 inspection /reports 4 hours	72,000 hours	61,800 hours	-- 10,200 hours -- 2,550 resp.
237.107/109 – Bridge Inspections - Records	18,000 records 1 hour	15,450 records 1 hour	18,000 hours	15,450 hours	-- 2,550 hours -- 2,550 resp.
237.153 – Audit of Inspections	693 audits 80 hours/24 hours/24 hours/ 6 hours	725 audits 80 hours/24 hours/24 hours/ 6 hours	5,470 hours	5,534 hours	+ 64 hours + 32 responses

Total **adjustments** decreased the burden by 32,290 hours and decreased the number of responses by 4,962.

The current OMB inventory for this information collection shows a total burden of 256,898 hours, while the present submission exhibits a total burden of 224,608 hours. Hence, there is a burden decrease of **32,290 hours**.

There is no change in cost to respondents from the previous submission.

**16. Publication of results of data collection.**

There are no plans for publication of this submission. Primarily, the information is used by specialists of the Office of Safety, as well as field personnel, to enforce the regulation.

**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 collection of information collection supports DOT top strategic goal, namely transportation security. Without this collection of information, railroad safety throughout the United States would be greatly jeopardized, possibly with catastrophic consequences if a railroad bridge deteriorated to such an extent that it collapsed because it was not properly inspected or necessary repairs/modifications were not made in a timely manner. Without this collection of information, there might be increased numbers of train accidents/incidents and accompanying injuries, fatalities, and property damage because bridges over which trains operate every day throughout this country were not properly inspected, maintained, modified, and repaired in a systematic and consistent way by qualified railroad personnel.

Without the information collected under § 237.7, FRA would have no way of knowing when railroads/track owners assign responsibility for their bridges to another person (by lease or otherwise) and who is actually responsible for the safe operation of trains over those bridges and compliance with the requirements of this Part.

Without the information collected under § 237.13, FRA would not be able to determine those situations where it is appropriate, safe, and conducive to the public interest to grant waivers to railroads/track owners regarding any of the requirements of this proposed rule.

Without the information collected under § 237.33 and § 237.35, FRA would be unable to verify that railroads/track owners have adopted and implemented a bridge management program to preserve the capability of their bridges to safely carry daily rail traffic over them and to prevent any deterioration that could lead to train collisions and derailments. Without the information collected under these sections, FRA could not be assured that railroads/track have established a comprehensive program to inspect, maintain, modify and repair their bridges and that railroads/track owners have completed an accurate inventory of their bridges and have recorded the safe load capacity of each bridge. An accurate inventory is essential so that responsible and qualified individuals can schedule and track necessary railroad bridge inspection, maintenance, and repair activities.

Without the information collected under § 237.59, FRA would not be able to know which individuals have been designated as railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors. Without this information, FRA would not know the basis of each designation, and would not be able to perform its oversight function to ensure that only qualified and properly trained individuals serve in these important safety-critical positions.

Without the information collected pertaining to the determination of bridge load capacities under § 237.73, FRA and railroad/track owners would be unable to ensure that the safe load capacity of railroad bridges is not exceeded. Bridge load capacities that are exceeded by overweight and over-dimension train cars could cause structural damage to bridges and might impair the smooth flow of rail traffic over these vital transportation arteries that move so many people and goods each day throughout the nation. In a worst case scenario, a bridge load capacity that is constantly exceeded could cause stresses and accumulated damage over time that could lead to train collisions and derailments. Were these bridges not properly inspected and repaired, a catastrophic accident could occur involving release of poisonous chemicals or possibly involving collapse of the bridge itself, with scores of injuries, fatalities, damage to property, and possibly environmental damage affecting surrounding communities.

Without the information collected under § 237.75, FRA could not be assured that railroads/track owners have issued clear and necessary instructions to its bridge personnel who are responsible for the safe operation of trains over its bridges. Without this information, railroad bridge engineers, railroad bridge inspectors, and railroad bridge supervisors could not effectively perform their duties to prevent the operation of cars, locomotives, and other equipment from exceeding the capacity or dimensions of its bridges.

Without the information collected under §§ 237.103, 237.105, and 237.107, FRA could not be confident that essential bridge inspections are scheduled, and carried out by properly qualified personnel, as needed and as set forth in the bridge management program of each railroad/track owner. Railroad personnel need to know and follow

bridge inspection procedures established in their railroad's/track owner's bridge management program in order to perform each inspection with the level of detail appropriate to the configuration of the bridge, conditions found at that inspection or during previous inspections, and the nature of the railroad traffic moved over the bridge, including equipment weights, train frequency and length, levels of passenger and hazardous materials traffic, and vulnerability of the bridge to damage. It is especially important that special inspection bridge procedures (e.g., those for underwater bridge inspections) be followed to detect and repair damage to bridges caused by accidental or natural events, including, but not limited to, floods, fires, earthquakes, derailments, or vehicular or vessel impacts. Failure to follow procedures specified in the railroad's/track owner's bridge management program or by a railroad bridge engineer could lead to increased numbers of accidents/incidents and corresponding casualties to train crews, rail passengers, and other members of the general public.

Without the information collected under § 237.109, FRA could not be certain that bridge inspections are conducted under the supervision of a designated bridge inspector who is responsible for the accuracy of the inspection results and the conformity of the inspection to the railroad's/track owner's bridge management program.

Without the information collected under §237.111, FRA would be severely impeded in its compliance/oversight function related to bridge inspections because there would be no record of each inspection required to be performed. Without these necessary records, FRA inspectors would not know the identity or location of the bridge inspected, the date the inspection was completed, the identity of the person who conducted the bridge inspection, the type of inspection performed, whether any item noted on the record required expedited or critical review by a railroad bridge engineer, and if any restrictions were placed on rail traffic movements at the time of inspection. Without these essential records, FRA would have no way to check that bridges were properly inspected or that necessary repairs were carried out before major safety issues developed. A bridge inspection has little value unless it is recorded and reported to the individuals who are responsible for the ultimate determination of the safety of the bridge. Thus, without these records, railroad bridge supervisors and railroad bridge engineers would not be able to carry out their essential duties. In the event of a train accident/incident, FRA's investigation into the cause(s) would be severely hindered without these records.

Without the information collected under §237.113, FRA would be unable to confirm that bridge inspection reports received the multi-tiered review called for in the Railroad Safety Improvement Act of 2008. In this section, responsible railroad bridge supervisors and railroad bridge engineers are required to review bridge inspection reports. Without these reviews, railroads/track owners could not be sure that a considered determination by railroad bridge supervisors and railroad bridge engineers has been made that inspections have been performed according to the prescribed schedule and specified procedures in the bridge management program. Additionally, without these reviews, conditions noted in the bridge inspection report would not be properly evaluated at a

higher level to determine what further action is required, if any, on the part of the railroad/track owner. The safe operation of trains over bridges demands that necessary maintenance and repair activities be carried out and done so in a timely fashion.

Without the information collected under §237.133, FRA would be uncertain that bridge repairs and modification of bridges were properly designed. Design of entire railroad bridges, modifications and repairs which materially modify the capacity of the bridge or the stresses in any primary load-carrying component of the bridge require the intelligent application of the principles of engineering and can only be performed by an engineer with training and experience in the field of railroad bridges. Without proper designs, repairs and modifications might be carried out that were substandard or carried out in a fashion that did not effectively accommodate railroad traffic or other live loads. This could lead to increased numbers of train accidents/incidents throughout the country.

Without the information collected under §237.155, FRA would have no way of knowing whether railroads/track owners are conducting required audits of bridge inspection reports. Without these audits, FRA and railroads/track owners would be unable to determine the effectiveness of bridge management programs. Only by comparison of recent bridge inspection reports against actual conditions found at the subject bridges will railroads/track owners know whether their bridge management programs are working well or need to be modified to maintain and enhance safety.

Finally, without the requirement under §237.157 that railroads/track owners keep documents and records, FRA would have no way to determine and assure compliance with the requirements stipulated in the RSIA of 2008 and spelled out in this proposed rule. FRA inspectors will need to review bridge inspection and maintenance data periodically from railroads/track owners to verify that they and their employees are responsibly and effectively implementing required bridge management programs. Only in this way can FRA be certain that railroads/track owners are properly inspecting, maintaining, modifying, and repairing their bridges to allow the continued safe operation of trains over them.

Also, under §237.157, those railroads/track owners electing to keep required documents and records electronically must meet FRA system security requirements. Without this information, FRA would have no way to verify that the integrity of the railroad's/track owner's database is protected by a security system that utilizes an employee identification number and password, or a comparable method, to establish appropriate levels of program access that meets agency standards. Specifically, the following standards must be met: (1) No two individuals have the same electronic identity; (2) A record cannot be deleted or altered by any individual after the record is certified by the employee who created the record; (3) Any amendment to a record is either -- (i) Electronically stored apart from the record that it amends, (ii) Electronically attached to the record as information without changing the original record; (4) Each amendment to a record uniquely identifies the person making the amendment; and (5) The electronic system

provides for the maintenance of inspection records as originally submitted without corruption or loss of data.

Lastly, under §237.157, railroads/track owners must train their employees who use the system on the proper use of the electronic recordkeeping system. Without this information, FRA believes vital records required by this proposed rule might be accidentally deleted, improperly altered/amended, wrongly attached to another record, lost, or corrupted. Without these essential records, FRA inspectors would be unable to perform their monitoring and enforcement functions.

In short, this collection of information promotes and enhances national rail safety, and thus serves as a vital component of FRA's comprehensive safety program. It helps to meet the requirements enacted in the RSIA of 2008, and is essential in assisting FRA to fulfill its primary agency mission and objective.

In this information collection and indeed 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.