# INFORMATION COLLECTION SUPPORTING JUSTIFICATION TRACK SAFETY STANDARDS OMB No. 2130-0010; RIN 2130-AC09

### 1. <u>Circumstances that make collection of the information necessary.</u>

#### **Summary**

- FRA is publishing this Final Rule titled <u>Vehicle/Track Interaction Safety Standards</u>; <u>High Speed and High Cant Deficiency Operations</u> in the **Federal Register** on March 13, 2013. <u>See</u> 78 FR 16052.
- FRA published a Notice of Proposed Rulemaking (NPRM) in the Federal Register titled Vehicle/Track Interaction Safety Standards; High Speed and High Cant <u>Deficiency Operations</u> on May 10, 2010. <u>See</u> 75 FR 25928.
- This final rule information collection submission is a <u>revision</u> to the previously approved final rule submission cleared by OMB on April 24, 2010.
- The total number of burden hours requested for this submission is **3,761,468 hours.**
- The total number of burden hours for the previously approved final rule submission amounted to **1,957,927 hours**.
- The increase in burden from the last approved submission is **1,803,541 hours**.
- Total **program changes amount to/increased** the burden by **2,252 hours**.
- Total **adjustments amount to/increased** the burden by **1,801,289 hours**.
- \*\*The answer to question <u>number 12</u> itemizes the hourly burden associated with each requirement of this rule (See pp. 25-78).
- \*\*The answer to question <u>number 15</u> itemizes all program changes and adjustments. (See pp. 80-84)

The first Federal Track Safety Standards were published on October 20, 1971, following the enactment of the Federal Railroad Safety Act of 1970, Public Law 91-458, 84 Stat. 971 (October 16, 1970), in which Congress granted to FRA comprehensive authority over "all areas of railroad safety." See 36 FR 20336. FRA envisioned the new Standards to be an evolving set of safety requirements subject to continuous revision allowing the

regulations to keep pace with industry innovations and agency research and development. The most comprehensive revision of the Standards resulted from the Rail Safety Enforcement and Review Act of 1992, Public Law 102-365, 106 Stat. 972 (Sept. 3, 1992), later amended by the Federal Railroad Safety Authorization Act of 1994, Pub. L. No. 103-440, 108 Stat. 4615 (November 2, 1994). The amended statute is codified at 49 U.S.C. 20142 and required the Secretary of Transportation (Secretary) to revise the Track Safety Standards, which are contained in 49 CFR part 213. The Secretary delegated the statutory rulemaking responsibilities to the Administrator of the Federal Railroad Administration, see 49 CFR 1.49.

In September 1994, the Secretary convened a meeting of representatives from all sectors of the rail industry with the goal of enhancing rail safety. As one of the initiatives arising from this Rail Safety Summit, the Secretary announced that DOT would develop safety standards for rail passenger equipment over a 5-year period. In November 1994, Congress adopted the Secretary's schedule for implementing rail passenger equipment safety regulations and included it in the Federal Railroad Safety Authorization Act of 1994. Congress also authorized the Secretary to consult with various organizations involved in passenger train operations for purposes of prescribing and amending these regulations, as well as issuing orders pursuant to them. Section 215 of this Act is codified at 49 U.S.C. 20133.

To help fulfill the statutory mandates, FRA decided that the proceeding to revise Part 213 should advance under the Railroad Safety Advisory Committee (RSAC), which was established on March 11, 1996. In turn, RSAC formed a Track Working Group, comprised of approximately 30 representatives from railroads, rail labor, trade associations, State government, track equipment manufacturers, and FRA, to develop and draft a proposed rule for revising Part 213. The Track Working Group identified issues for discussion from several sources, in addition to the statutory mandates issued by Congress in 1992 and in 1994. Ultimately, the Track Working Group recommended a proposed rule to the full RSAC body, which in turn formally recommended to the Administrator of FRA that FRA issue the proposed rule as it was drafted.

On July 3, 1997, FRA published an NPRM which included substantially the same rule text and preamble developed by the Track Working Group. The NPRM generated comment, and following consideration of the comments received, FRA published a final rule in the Federal Register on June 22, 1998, see 63 FR 33992, which, effective September 21, 1998, revised the Track Safety Standards in their entirety. To address the modern railroad operating environment, the final rule included standards specifically applicable to high-speed train operations in a new subpart G. Prior to the 1998 final rule, the Track Safety Standards had addressed six classes of track, Classes 1 through 6, that permitted passenger and freight trains to travel up to 110 miles per hour; passenger trains had been allowed to operate at speeds over 110 miles per hour under conditional waiver granted by FRA. FRA revised the requirements for Class 6 track, included them in new subpart G, and also added in it three new classes of track, track Classes 7 through 9,

designating standards for track over which trains may travel at speeds up to 200 miles per hour. The new subpart G was intended to function as a set of "stand alone" regulations governing any track identified as belonging to one of these high-speed track classes.

FRA formed the Passenger Equipment Safety Standards Working Group to provide FRA with advice in developing the regulations mandated by Congress. On June 17, 1996, FRA published an advance notice of proposed rulemaking (ANPRM) concerning the establishment of comprehensive safety standards for railroad passenger equipment. See 61 FR 30672. The ANPRM provided background information on the need for such standards, offered preliminary ideas on approaching passenger safety issues, and presented questions on various passenger safety topics. Following consideration of comments received on the ANPRM and advice from FRA's Passenger Equipment Safety Standards Working Group, FRA published an NPRM on Sept. 23, 1997, to establish comprehensive safety standards for railroad passenger equipment. See 62 FR 49728. In addition to requesting written comment on the NPRM, FRA also solicited oral comment at a public hearing held on November 21, 1997. FRA considered the comments received on the NPRM and prepared a final rule, which was published on May 12, 1999. See 64 FR 25540.

After publication of the final rule, interested parties filed petitions seeking FRA's reconsideration of certain requirements contained in the rule. These petitions generally related to the following subject areas: structural design; fire safety; training; inspection, testing, and maintenance; and movement of defective equipment. On July 3, 2000, FRA issued a response to the petitions for reconsideration relating to the inspection, testing, and maintenance of passenger equipment, the movement of defective passenger equipment, and other miscellaneous provisions related to mechanical issues contained in the final rule. See 65 FR 41284. On April 23, 2002, FRA responded to all remaining issues raised in the petitions for reconsideration, with the exception of those relating to fire safety. See 67 FR 19970. Finally, on June 25, 2002, FRA completed its response to the petitions for reconsideration by publishing a response to those petitions concerning the fire safety portion of the rule. See 67 FR 42892. The product of this rulemaking was codified primarily at 49 CFR Part 238 and secondarily at 49 CFR Parts 216, 223, 229, 231, and 232.

While FRA had completed these rulemakings, FRA and interested industry members began identifying various issues for possible future rulemaking. Some of these issues resulted from the gathering of operational experience in applying the new safety standards to Amtrak's high-speed, Acela Express (Acela) train sets, as well as to higher speed commuter railroad operations. These included concerns raised by railroads and rail equipment manufacturers as to the application of the new safety standards and the consistency between the requirements contained in Part 213 and those in Part 238. Other issues arose from research conducted, allowing FRA to gather new information with which to evaluate the safety of high-speed and high cant deficiency operations. FRA decided to address these issues with the assistance of RSAC.

The NPRM was developed to address a number of the concerns raised and issues discussed during the Task Force and Working Group meetings. The Task Force recognized that the high-speed track safety standards were based on the principle that, to ensure safety, the interaction of the vehicles and the track over which they operate must be considered within a systems approach that provides for specific limits for vehicle response to track perturbation(s). From the outset, the Task Force strove to develop revisions that would: (i) serve as practical standards with sound physical and mathematical bases; (ii) account for a range of vehicle types that are currently used and may likely be used on future high-speed or high cant deficiency rail operations, or both; and (iii) not present an undue burden on railroads.

The Task Force first identified key issues requiring attention based on experience applying the current Track Safety Standards and Passenger Equipment Safety Standards, and defined the following work efforts:

- Revise –
- qualification requirements for high-speed or high cant deficiency operations, or both;
- o acceleration and wheel force safety limits;
- o inspection, monitoring, and maintenance requirements; and
- o track geometry limits for high-speed operations.
- Establish –
- o necessary safety limits for wheel profile and truck equalization;
- consistent requirements for high cant deficiency operations covering all track classes; and
- o additional track geometry requirements for cant deficiencies greater than 5 inches.
- Resolve and reconcile inconsistencies between the Track Safety Standards and Passenger Equipment Safety Standards, and between the lower- and higher-speed Track Safety Standards.

Through the close examination of these issues, the Task Force developed proposals intended to result in improved public safety while reducing the burden on the railroad industry where possible. The proposals were arrived at through the results of computer simulations of vehicle/track dynamics, consideration of international practices, and thorough reviews of qualification and revenue service test data. Nonetheless, in the NPRM published on May 10, 2010, see 75 FR 25928, FRA makes clear that the Task Force did not seek to revise comprehensively the high-speed Track Safety Standards in subpart G of Part 213, and the NPRM did not propose to do so.

With this final rule, FRA is amending the Track Safety Standards and Passenger Equipment Safety Standards applicable to high-speed and high cant deficiency train operations to promote the safe interaction of rail vehicles with the tracks over which they operate. The final rule revises limits for vehicle response to track perturbations and adds new limits as well. The rule accounts for a range of vehicle types that are currently used and may likely be used in future high-speed or high cant deficiency rail operations, or both. The rule is based on the results of simulation studies designed to identify track geometry irregularities associated with unsafe wheel/rail forces and accelerations, thorough reviews of vehicle qualification and revenue service test data, and consideration of international practices.

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

This is a revision to the previously approved collection of information. The new information collection requirements will be used by FRA and its inspectors to promote and enforce the safe interaction of rail vehicles with the track over which they operate relating to high speed and high cant deficiency train operations. It will also be used by railroads to maintain and enhance safety during such train operations.

The new information collected under § 213.333(j) will be used by railroads to notify track personnel when onboard accelerometers indicate a possible track-related problem concerning vehicles having dynamic response characteristics that are representative of other vehicles assigned to the service. This provision essentially calls for periodically testing a vehicle having dynamic response characteristics that are representative of other vehicles assigned to the service. During the testing, it is possible that it will be found that the vehicle is not responding properly due to a condition of this vehicle and other vehicles operated that it represents. The onboard accelerometers measure peak-peak lateral and vertical accelerations that indicate track/vehicle interactions, and railroads will use this information to spot trends in vehicle and/or track degradation. It is critical that this information be passed along promptly to track personnel so that necessary measures can be taken to ensure the safe movement of trains.

The new information collected under § 213.333(k) will be used by FRA to review and approve requests for an alternate location for mounting a truck frame device measuring lateral accelerations. FRA will review these requests to ensure that the alternate location enables the same performance as the standard location and that safety is not compromised or impeded in any way. This provision aims to provide flexibility to railroads that have an issue with placing the accelerometer in accordance with the rule stipulation while ensuring no diminution in safety at the same time.

The new information collected under § 213.333(l) will be used by FRA to review and evaluate monitoring data reports collected in accordance with paragraphs (j) and (k) of this section. Vehicle suspension systems may fail/degrade while in service. So, as part of the qualification testing of a vehicle type, FRA will require that the track

owner/railroad identify those suspension system components that represent a single point of failure and then test for how the vehicle would perform due to such failure. Should the analysis in these monitoring data reports show that a failed/degraded component presents a safety issue, railroads must take necessary corrective measures/actions to prevent an accident/incident from occurring. FRA review will ensure that the necessary level of safety is maintained.

The new information collected under § 213.345 will be used by FRA to ensure that railroads develop a qualification program for vehicle/track systems at track Class 6 speeds or above or at any curving speed producing 5 inches of cant deficiency. The requirements in this section are designed to work in concert with the requirements of § 213.333 to ensure that the vehicles demonstrate safe dynamic response over their intended route. Based on the reports detailing all the results of the qualification program, FRA may require railroads to modify their qualification programs and/or take additional measures to ensure safe train operations.

The information collected under § 213.7(c) will be used by FRA to ensure that individuals designated by railroads/track owners as qualified to inspect continuous welded rail (CWR) track or supervise the installation, adjustment, and maintenance of CWR track meet the criteria spelled-out in this section. Specifically, FRA inspectors will review these designations to ensure named individuals: (1) possess current qualifications under either paragraphs (a) or (b) of this section; (2) have successfully completed a comprehensive training course specifically developed for the application of written CWR procedures issued by the track owner; (3) have demonstrated to the track owner that he/she knows and understands the requirements of the written CWR procedures, can detect deviations from those requirements, and can prescribe appropriate remedial action(s) to correct or safely compensate for those deviations; and (4) have written authorization from the track owner to prescribe remedial action(s) to correct or safely compensate for deviations from the requirements in the CWR procedures and have successfully completed a recorded examination on the procedures as part of the qualification process.

The information collected under § 213.118 and § 213.119 will be used by FRA to ensure that railroads/track owners develop and implement plans containing written procedures which address the installation, adjustment, maintenance and inspection of continuous welded rail (CWR), inspection of CWR joints, and a training program for the application of those procedures. Railroads/track owners must file their CWR plans with the FRA Associate Administrator for Safety not less than 30 days before implementing their plans. This includes submitting revisions to an existing CWR plan in order for changes to take effect under the regulation. FRA then will review these plans to ensure that railroads/track owners develop and implement written procedures which prescribe the scheduling and conduct of physical track inspections to detect cracks and other indications of incipient failures in joints in CWR. To ensure compliance with the requirements of this rule, FRA will confirm that railroads or track owners specify in their

written procedures that all joints in CWR in the various track classes are inspected according to the schedule prescribed in § 213.119(h)(6)(i).

Also, FRA will verify that these written procedures address the conduct of inspections to detect cracks and other indications of potential failures in CWR joints and that these procedures address the following: (1) The inspection of joints and the track structure at joints, including, at a minimum, periodic on-foot inspections; (2) Identify joint bars with visible or otherwise detectable cracks and conduct remedial action pursuant to § 213.121; (3) Specify the conditions of actual or potential joint failure for which personnel must inspect, including, at a minimum, the following items: (i) Loose, bent, or missing joint bolts; (ii) Rail end batter or mismatch that contributes to the instability of the joint; and (iii) Evidence of excessive longitudinal rail movement in or near the joint, including, but not limited to: wide rail gap, defective joint bolts, disturbed ballast, surface deviations, gap between tie plates and rail, or displaced rail anchors; (4) Specify the procedures for the inspection of CWR joints that are imbedded in highway-rail crossings or in other structures that prevent a complete inspection of the joint, including procedures for the removal from the joint of loose material or other temporary material; (5) Specify the appropriate corrective actions to be taken when personnel find conditions of actual or potential joint failure, including on-foot follow-up inspections to monitor conditions of potential joint failure in any period prior to completion of repairs; (6) Specify the timing of periodic inspections, which shall be based on the configuration and condition of the joint; (7) Specify the recordkeeping requirements related to joint bars in CWR.

Additionally, in lieu of the requirements for the inspection of rail joints in § 213.119 (h) (1)-(h)(7), railroads/track owners may seek approval from FRA to use alternate procedures. Railroad/track owners must submit the proposed alternate procedures and a supporting statement of justification to the Associate Administrator for Safety. FRA will review these proposed alternate procedures to determine whether they provide an equivalent or higher level of safety than the requirements in paragraphs (h)(1) through (h) (7) of this section. If the Associate Administrator finds that the proposed alternate procedures provide an equivalent or higher level of safety than the requirements in paragraphs (h)(1) through (h)(6) of this section, the Associate Administrator will approve the alternate procedures by notifying the track owner in writing. The Associate Administrator will specify in the written notification the date on which the procedures will become effective and, after that date, the track owner must comply with the procedures. If the Associate Administrator determines that the alternate procedures do not provide an equivalent level of safety, the Associate Administrator will disapprove the alternate procedures in writing, and the track owner must continue to comply with the requirements in paragraphs (h)(1) and (h)(7) of this section. While a determination is pending with the Associate Administrator on a request submitted pursuant to paragraph (h)(8) of this section, the track owner must continue to comply with the requirements contained in paragraphs (h)(1) through (h)(7) of this section.

The Fracture Reports required under § 213.119(h)(7) are used by railroads to enhance rail safety by improving the identification of cracks in rail joint bars. Track owners must generate a Fracture Report for every cracked or broken CWR joint bar that the track owner discovers during the course of an inspection conducted pursuant to §§ 213.119(h), 213.233 or 213.365 on track that is required under § 213.119(h)(6)(i) to be inspected. The Fracture Report must be completed twice annually, and must be prepared on the day the cracked or broken joint is discovered. The Fracture Reports are used by railroads to provide useful data regarding joint conditions that lead to joint bar failure and enable railroads to take early preventive measures when these conditions are discovered. By taking early preventive measures to fix or replace joint cracks or broken bars, railroads can facilitate the smooth operation of their trains as well as reduce the number and severity of rail accidents.

FRA reviews Fracture Reports to ensure that railroads are conducting the required inspections and taking the necessary corrective actions once cracks and breaks are discovered. Fracture Reports provide FRA with additional insight into the effectiveness of the new inspection requirements. Because the inspection frequency was developed in part on modeling results, the Fracture Reports can be used by FRA to evaluate the reasonableness of model predictions. Certain data elements in the report can be used to estimate joint bar crack growth rates, which is crucial to determining proper inspection intervals. Based on the number of Fracture Reports submitted to the agency and the data they provide, FRA officials can assess the appropriateness of inspection intervals and make any necessary modifications.

Under § 213.119(j), track owners must prescribe and comply with recordkeeping requirements necessary to provide an adequate history of track constructed with CWR. FRA inspectors will review records of track constructed with CWR to ensure that these records include the following: (1) Rail temperature, location and date of CWR installations. These records must be kept for one year; (2) A record of any CWR installation or maintenance work that does not conform with the written procedures. Such record must include the location of the rail and be maintained until the CWR is brought into conformance with such procedures; and (3) Information on inspection of rail joints as specified in § 213.119(h) (7).

Railroad employees will use the CWR procedures manuals required at every job site under § 213.119(k) as an educational and compliance tool to better understand and carry out their duties related to the installation, inspection, and maintenance of CWR track in accordance with their employer's/track owner's prescribed program. Each CWR procedures manual must contain a copy of the track owner's CWR procedures and all revisions, appendices, updates, and reference materials. Employees can readily consult these manuals to clarify any questions they may have regarding CWR track and to ensure that they are correctly carrying out the necessary procedures. Additionally, in the event of an accident/incident, the required CWR procedures manuals will provide another resource that FRA investigators can use in determining the cause(s) of the

accident/incident. Agency investigators can review the CWR procedures manual to establish that they are complete and current, and can then compare actual employee actions related to CWR track to the prescribed procedures of the track owner's/railroad's CWR manual to ascertain whether railroad and Federal rules were complied with.

Regarding Gage Restraint Measurement Systems (GRMS), FRA uses the information collected to ascertain those line segments on which GRMS technology – supplemented by the use of Portable Track Loading Fixtures (PTLF) – needs to be implemented by track owners. Specifically, FRA reviews the information to ensure that certain minimal data are provided by railroads, including the segment's timetable designation milepost limits, track class, million gross tons of traffic per year, and any other identifying characteristics of the segment. FRA uses the information provided to evaluate the appropriateness of implementing GRMS technology on a given segment of track. FRA uses the technical data provided to ensure that minimum GRMS design requirements have been met and that GRMS vehicles have been properly calibrated so that the integrity of the data they provide is maintained.

FRA also uses the information collected to ensure that track owners provide training in GRMS technology to all persons designated as fully qualified under § 213.7 and whose territories are subject to the requirements of this section. Additionally, FRA reviews GRMS training programs submitted by track owners to verify these programs address the following areas: (1) Basic GRMS procedures; (2) Interpretation and handling of exception reports generated by the GRMS vehicle; (3) Locating and verifying defects in the field; (4) Remedial action requirements; (5) Use and calibration of the PTLF; and (6) Recordkeeping requirements. Moreover, FRA reviews records of the two most recent GRMS inspections at locations meeting the requirements specified in section 213.241(b) of this Part to ascertain the location and nature of each First Level exception and the nature and date of initiated remedial action, if any, for each First Level exception identified.

#### Other Track Safety Information

Under § 213.4, FRA uses the information collected to ensure that railroads properly identify a segment(s) of track as excepted either in their timetables, special instructions, general orders, or other appropriate records. When a piece of track is designated excepted that is not listed in its timetables, a railroad will issue special instructions or a general order identifying the excepted track so that its employees know what procedures or practices to follow. Also, FRA uses the information collected to verify that the appropriate FRA Regional Office has been notified by the railroad, at least 10 days in advance, when a segment of track is removed from excepted status. Ensuring the safety of railroad employees, and the traveling public is FRA's paramount concern.

Under § 213.5, FRA uses the information collected to verify that the agency is properly informed in writing, at least 30 days in advance, when a track owner assigns

responsibility for the track to another person by lease or otherwise. FRA reviews the notifications provided by railroads to make sure essential information is transmitted to the agency, including the following: (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; (5) A statement as to the competence and ability of the assignee to carry out the duties of the track owner under this part; and (6) A statement signed by the assignee acknowledging the assignment to him of responsibility for purposes of compliance with this Part. In order to carry out its many duties and to enforce compliance with this Part, such information is critical to FRA and its inspectors.

Under § 213.7, FRA reviews written records to ensure that qualified individuals are employed (designated) by railroads to inspect track for defects and to supervise restorations and renewals of track under traffic conditions. Such designated persons must have the following qualifications: (1) At least one (1) year of supervisory experience in railroad track maintenance; or a combination of supervisory experience in track maintenance and training from a course in track maintenance or from a college level educational program related to track maintenance; (2) Demonstrated to the track owner that he (i) knows and understands the requirements of this part; (ii) can detect deviations from those requirements; and (iii) can prescribe appropriate remedial action to correct or safely compensate for those deviations; and (3) Possesses written authorization from the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements in this part.

Under § 213.17, FRA reviews exemption petitions to see if it is safe and in the public interest to grant exemptions from any or all requirements prescribed in this Part to a railroad.

Under § 213.57, FRA uses the information collected to ensure that the track owner notifies the agency at least 30 calendar days in advance before a proposed implementation of the higher curving speeds allowed under the formula specified in paragraph (c) of this section. This notification must be in writing and must contain, at a minimum, the following information: (i) A complete description of the class of equipment involved, including schematic diagrams of the suspension systems and the location of the center of gravity above top of rail; (ii) A complete description of the test procedure and instrumentation used to qualify the equipment and the maximum values for wheel unloading and roll angles which were observed during testing; (iii) Procedures or standards in effect which relate to the maintenance of the suspension system for the particular class of equipment; and (iv) Specific track locations where the higher curving speeds are proposed to be implemented.

Under § 213.241, track owners to which this Part applies must keep a record of each inspection required to be performed on its track under this Subpart. FRA reviews this information to ensure that track inspections are completed as required and to ensure that

essential records are maintained and available to its inspectors so they can carry-out their duties. Federal and State investigators examine these inspection records to determine a railroad's compliance with the inspection frequency requirement of the Track Safety Standards and to verify that persons assigned to inspect tracks have been properly designated. By comparison of remedial action notations on the records with actual track conditions, it is possible for Federal and State investigators to judge the quality of railroad performed inspections. The railroads employ some 5,000 persons who are routinely engaged in track inspection, and careful review of these records may reveal weaknesses, if there are any, in the railroad's inspection and maintenance program or discrepancies in employee designation. In particular, FRA reviews these records to ensure that they specify the date of inspection, the location and nature of any internal defects found, the remedial action(s) taken and the date thereof, and the location of any intervals of track not tested per § 213.237(d). The track owners must retain these records for at least two years after the inspection and for one year after remedial action is taken. In the event of an accident/incident, these records provide extremely valuable information, particularly if a problem with track caused the unfortunate event. The absence of these inspection records would substantially harm the Department of Transportation's/FRA's railroad safety program.

Finally, railroads also use the information collected. Railroad companies initially use inspection reports/records to see that tracks are inspected periodically; that the inspectors are properly qualified; and the tracks are in safe condition for train operations. Additionally, railroad companies use these reports/records for maintenance planning, particularly where defective track is discovered and where repetitive unsafe conditions occur.

#### 3. Extent of automated information collection.

FRA strongly endorses and highly encourages the use of advanced information technology, wherever feasible, to reduce burden on respondents, and has done so for many years now. In this final rule, railroads have the option of providing the new data that they must submit under §§ 213.333, 213.345, and Appendix D electronically, or they can provide the required data in paper format, if that is more economical or convenient for them.

The Track Safety regulations permit great flexibility in the methods employed to establish employee qualifications and to determine track conditions, and only specify information which must be contained in the records. The form of that record is discretionary and entities may use any medium capable of displaying information, including electronic recordkeeping.

The rule contains a provision for maintaining and retrieving electronic records of track inspections. Patterned after an experimental program successfully tried by the former Atchison Topeka & Santa Fe Railroad with oversight by FRA, the provision in

subsections § 213.119 and § 213.241(e) allows each railroad to design its own electronic system as long as the system meets the specified criteria to safeguard the integrity and authenticity of each record. Currently, approximately 75% of all responses are now submitted/collected electronically by railroads/track owners.

#### 4. Efforts to identify duplication.

The collection of information associated with this rulemaking is unique. The new data to be provided under this final rule are additional important components of FRA's strategic and comprehensive safety program, and are designed to monitor the safe interaction of rail vehicles with the track over which they operate relating to high speed and high cant deficiency train operations. For example, records of track inspection results describe a continuously changing condition at any given moment in time. Records of qualified track inspectors are exclusive to a specific railroad property; thus, no duplication of information exists because this information is proprietary to that railroad.

As noted previously, the information regarding GRMS systems involves a relatively new technology, and, therefore, there is no possibility of duplication.

The data collected under this submission are not available from any other source.

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

The U.S. Small Business Administration (SBA) stipulates in its "Size Standards" that the largest a railroad business firm that is "for-profit" may be, and still be classified as a "small entity," is 1,500 employees for "Line-Haul Operating Railroads," and 500 employees for "Switching and Terminal Establishments." "Small entity" is defined in the Regulatory Flexibility Act as a small business that is not independently owned and operated, and is not dominant in its field of operation. Federal agencies may adopt their own size standards for small entities in consultation with SBA and in conjunction with public comment. Pursuant to that authority, FRA has published a final statement of agency policy that formally establishes "small entities" or "small businesses" as being railroads, contractors, and hazardous materials shippers that meet the revenue requirements of a Class III railroad as set forth in 49 CFR 1201.1-1, which is \$20 million or less in inflation-adjusted annual revenues; and commuter railroads or small governmental jurisdictions that serve populations of 50,000 or less. See 68 FR 24891, May 9, 2003, codified at Appendix C to 49 CFR, part 209. The \$20 million-limit is based on the Surface Transportation Board's revenue threshold for a Class III railroad. Railroad revenue is adjusted for inflation by applying a revenue deflator formula in accordance with 49 CFR 1201.1-1. FRA has applied this definition for this rulemaking.

There are currently two intercity passenger railroads, Amtrak and the Alaska Railroad Corporation. Neither is considered to be a small entity. Amtrak is a Class I railroad and

the Alaska Railroad is a Class II railroad. The Alaska Railroad is owned by the State of Alaska, which has a population well in excess of 50,000.

There are currently 28 commuter railroad operations in the U.S. Most commuter railroads are part of larger transportation organizations that receive Federal funds and serve major metropolitan areas with populations greater than 50,000. However, two commuter rail operations do not fall in this category and are considered small entities. One provides service to and from a sporting venue in Iowa City, Iowa; the second provides service between North Creek and Saratoga Springs, New York. Both operations are conducted at low speeds—with only one reaching a maximum speed as high as 30 miles per hour. Consequently, neither entity will be impacted by the requirements of this rule affecting high-speed operations. Moreover, it is extremely unlikely that either entity would engage in high cant deficiency operations because such operations require relatively expensive rolling equipment capable of tilting to provide a safe and comfortable ride to passengers.

At present, no small entities will be affected by either the high-speed provisions or the high cant deficiency provisions. Small railroads hosting passenger operations can recoup any costs of maintaining infrastructure, through trackage agreements which enable host railroads to recover marginal costs of permitting passenger operations over their tracks, to accommodate high cant deficiency operations, or they can refuse to host such operations, as appropriate. To the extent that new passenger railroads are small entities, and want to take advantage of high cant deficiency and have the means to do so, they will benefit. Nonetheless, FRA does not foresee any situation under which a small entity might be affected by the high-speed provisions in this final rule.

In the NPRM, FRA requested comments on both the analysis and the certification that there will be no significant economic impact on a substantial number of small entities. No comment was received. Based on these determinations, FRA certifies that this action will not have a significant economic impact on a substantial number of small entities.

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

If the information were not collected or collected less frequently, rail safety in the United States would be seriously jeopardized. Specifically, without the new information collected under § 213.333, § 213.345, and Appendix D, there might be increased numbers of rail accidents/incidents with corresponding injuries and fatalities to railroad passengers and rail employees, as well as significant property damage to rail equipment, if FRA could not ensure the safe movement of trains relating to the interaction of rail vehicles with the track over which they travel during high speed and high cant deficiency train operations. It is especially important to collect the information under these new provisions to facilitate and accelerate the safe transition to increased high speed (and high cant deficiency) train operations throughout the United States. This is a top Administration priority, and billions of dollars are now being invested to enable the

United States to catch up to Asia and Europe in the availability and popularity of high speed rail travel.

Without this collection of information, there might be more derailments with corresponding injuries and fatalities to railroad personnel and passengers, as well as significant amounts of property damage, if FRA could not ensure that adequate procedures were in place to detect and correct defects in continuous welded rail (CWR) track, particularly regarding defects involving rail joints in CWR. Without this collection of information, there would be no way that FRA could ensure that railroads/track owners develop and implement plans containing procedures (or alternate procedures) which describe the scheduling and conduct of physical track inspections to detect cracks and other indications of incipient failure in CWR. Without such procedures, railroads would have no thorough and systematic way to examine CWR track and detect any of the following: (i) joint bars with visible or otherwise detectable cracks; (ii) loose, or bent, or missing joint bolts; (iii) rail end batter or mismatch that contributes to instability of the joint; and (iv) evidence of excessive longitudinal rail movement in or near the joint, including – but not limited to – wide rail gap, defective joint bolts, or displaced anchors. Such defects could lead to an increased number of derailments, with corresponding increased casualties, if left undiscovered and uncorrected.

Without the information collected under § 213.7, § 213.118, and § 213.119, FRA would have no way to ensure that railroads have comprehensive CWR training programs and no way of knowing whether individuals designated by track owners to inspect CWR track or supervise the installation, adjustment, and maintenance of CWR track have completed the required comprehensive training course and are actually qualified to perform such duties. If unqualified individuals who had not completed the required CWR procedures recorded examinations and who had not received written authorization from track owners to prescribe remedial actions were to carry out tasks related to the installation, adjustment, and maintenance of CWR track, there might be a greater number of accidents/incidents and corresponding injuries and fatalities because trains derailed as a result of incomplete or improper work.

Without this collection of information, FRA would have no way to ensure that periodic and follow-up inspections of CWR rail and CWR rail joints were actually performed. Without the required records mandated by § 213.119, FRA would have no way to verify whether all of the approximately 360,000 rail joints nationwide have been placed in the rail joint record inventory and periodically inspected to catch and correct defects before they lead to train accidents/incidents. Without these necessary records, FRA would lose an extremely valuable tool to ensure compliance with this regulation and FRA's overall safety program.

Without the Fracture Reports required § 213.119, FRA would have no means to monitor and evaluate whether railroads are carrying out the necessary follow-up CWR inspections and taking appropriate corrective actions when CWR joint cracks or broken joint bars are

discovered. Also, without the data provided by these Fracture Reports, FRA would have no way to determine whether the inspection methods and inspection frequencies carried out by railroads/track owners are appropriate or should be varied. Presently, track owners must submit the information contained in the Fracture Reports to the Associate Administrator for Safety twice annually. Fracture Report data may cause FRA to change this frequency.

Without the new information collected under § 213.119(k) that requires CWR manuals containing the track owner's CWR procedures, all revisions, appendices, updates, and reference materials related thereto at ever job site where personnel are assigned to install, inspect, and maintain CWR, railroad supervisors and employees would be deprived of an essential and authoritative resource to answer questions, resolve problems, and clarify proper procedures to ensure that all CWR work is done completely and correctly. Without these completely current CWR procedures manuals, supervisors and their employees might perform CWR work that they believed was done completely and correctly but which did not actually follow their employers requirements or Federal safety regulatory requirements. This could lead to increased numbers of accidents/incidents on CWR track.

Without this collection of information, there would be no way to facilitate and monitor the implementation of the Gage Restrain Measurement System (GRMS) technology. Presently, the maintenance decisions which determine crosstie and rail fastener replacement within the industry rely heavily on visual inspections made by maintenance personnel whose subjective knowledge is based on varying degrees of experience and training. The subjective nature of these inspections sometimes results in inconsistent determinations about the ability of individual crossties and rail fasteners to maintain adequate gage restraint. GRMS technology offers a better, more objective method to determine the ability of crossties and rail fasteners to maintain adequate gage restraint. It is well known within the rail industry that crossties of questionable condition left too long can cause wide-gage derailments. By collecting the required GRMS information, FRA can ensure the following: that GRMS is implemented on appropriate segments of track on a regional (eventually a national) basis; that GRMS design requirements have been met; that GRMS vehicles have been properly calibrated so that the integrity of the data they provide is maintained; and that suitable GRMS training programs have been established by track owners so that persons fully qualified under §213.7 are properly trained in this new technology. FRA's facilitation of the implementation of GRMS technology serves to improve rail safety by reducing the likelihood of wide-gage derailments caused by crossties and rail fasteners which had not been replaced in a timely manner.

Other information collected and reviewed by FRA as a result of the Track Safety Standards, particularly written records, enhance rail safety by ensuring that track owners designate only qualified persons to inspect and maintain track, and to supervise restorations and renewals of track under traffic conditions. The list of qualified persons to inspect or repair track is updated as new employees become qualified. These

individuals must be able to demonstrate to track owners that they have the necessary experience and knowledge so that they can detect deviations from the requirements of this Part and prescribe appropriate remedial action to correct or safely compensate for those deviations. Each designated individual, including contractor personnel engaged by the track owner, must have written authorization from the track owner to prescribe remedial actions, and must have successfully completed a recorded examination. Consequently, these persons will better be able to identify rail defects and rail mismatches; determine the condition of crossties; evaluate track surface and alignment; ascertain gage restraint; and discern the maximum distance between rail ends over which trains may be allowed to pass. This, in turn, will help to reduce the number of accidents/incidents and corresponding injuries, deaths, and property damage.

Inspection records are extremely important and are used by Federal and State investigators in the enforcement of the Track Safety Standards, and thus help promote rail safety. Track inspection records must indicate which track(s) are traversed by a vehicle that allows qualified persons to visually inspect the structure for compliance with this Part and which track(s) are inspected by foot, as outlined in paragraph (b)(2) of § 213.233. Records must be prepared on the day the inspection is made, and must be signed by the person making the inspection. Further, records must specify the track inspected, date of inspection, location and nature of any deviation from the requirements of Part 213, the location of any intervals of track not tested per § 213.237(d), and the remedial action taken by the person making the inspection. Track owners are required to retain inspection records for at least two years after the actual inspection and for one year after the remedial action is taken. The frequency of inspection is related to the rate of track degradation, and a relaxation of that frequency would increase the risk of an accident caused by a defect that had not been detected. In the event of a train accident/incident, particularly one implicating track structure, these inspection records provide invaluable investigatory assistance in determining the exact cause(s) of the accident/incident and also provide keen insight in designing appropriate remedial measures/programs.

In sum, the information collected aids FRA in its primary mission, which is to promote and enhance rail safety throughout the nation.

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

Under § 213.233, track inspections must be made in accordance with the following schedule: (1) Excepted track and Class 1, 2, and 3 track (main track and sidings) must be inspected weekly with at least three calendar days interval between inspections, or before use, if the track is used less than once a week, or twice weekly with at least one calendar day interval between inspections, if the track carries passenger trains or more than 10 million gross tons of traffic during the preceding calendar year; (2) Excepted track and Class 1, 2, and 3 track (other than main track and sidings) must be inspected monthly with at least 20 calendar days interval between inspections; and (3) Class 4 and 5 track

must be inspected twice weekly with at least one calendar day interval between inspections. Inspection records are required to be kept by track owners under § 213.241, and each record of an inspection must be prepared on the day the inspection is made.

Also, under § 213.341, initial inspection of new field welds, either those joining the ends of CWR strings or those made for isolated repairs, must be conducted not less than one day and not more than 30 days after the welds have been made.

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

# 8. <u>Compliance with 5 CFR 1320.8.</u>

FRA published a Notice of Proposed Rulemaking (NPRM) in the **Federal Register** titled <u>Vehicle/Track Interactions Safety Standards: High-Speed and High Cant Deficiency Operations</u> on May 10, 2010, see 75 FR 25928, soliciting public comment on its proposed rule and associated collection of information. In response, a number of interested parties submitted written comments, and FRA considered all of these comments in preparing the final rule. Specifically, written comments were received from the Association of American Railroads (AAR), Amtrak, Bombardier, the European Union (EU), Florida Department of Transportation (FDOT), New Jersey Transit Corporation (NJ Transit), North Carolina Department of Transportation (NCDOT), SEPTA, Société Nationale des Chemins de fer Français (French National Railway Company, shortened as SNCF), and a private citizen. Most of these comments referenced technical issues relating to vehicle track interactions. None of them pertained to burden hour estimates.

There were some comments that did address paperwork requirements. In response to a comment from Bombardier relating to confusion/possible redundancy in § 213.345, FRA has made some modifications in the final rule. In particular, FRA has changed paragraph (e) of this section. Paragraph (e) clarifies the requirements in former paragraph (c) for the content of the qualification testing plan and adds a requirement for the plan to be submitted to FRA at least 60 days prior to conducting the testing. Further, FRA is consolidating proposed paragraph (e)(1), for including in the testing plan the results of required vehicle/track performance simulations, with proposed paragraph (e)(7), for including in the testing plan an analysis of simulation results, when simulations are required as part of vehicle qualification. Together, both paragraphs were potentially duplicative and are now addressed in paragraph (e)(6), which provides that the testing plan shall include the results of vehicle/track performance simulations that are required by this section. As a consequence, the remaining paragraphs, proposed as paragraphs (e) (2) through (6), are designated as paragraphs (e)(1) through (5) in this final rule.

FRA notes that paragraph (e)(3) is being modified from the proposal in paragraph (e)(4) to provide that the test plan identify the maximum angle found on the gage face of the designed (newly profiled) wheel flange referenced with respect to the axis of the wheel set that will be used for the determination of the Single Wheel L/V Ratio safety limit

specified in § 213.333. This modification is consistent with the proposal in the NPRM and clarifies that the designed wheel flange is of a wheel newly profiled to that which is intended for service.

In addition, paragraph (e)(4) is being modified from the proposal in paragraph (e)(5), to provide that the test plan identify the target maximum testing speed in accordance with paragraph (a) of this section and the maximum testing cant deficiency. During Task Force consideration of the draft final rule, Interfleet noted that the reference to paragraph (a) concerns the maximum testing speed but that, as proposed, the reference appeared after the mention of the target maximum cant deficiency. Specifically, paragraph (a)(2) provides that for purposes of qualification testing, speeds may exceed the maximum allowable operating speed for the class of track in accordance with the test plan approved by FRA. Therefore, this reordering from the NPRM more clearly associates together the provisions that concern testing speed. At the same time, FRA has clarified what was meant by the "target" maximum cant deficiency in proposed paragraph (e)(5). The final rule makes clear that this cant deficiency is the "maximum testing cant deficiency," i.e., the maximum cant deficiency intended (targeted) during qualification testing. In addition, FRA recognizes that not every curve tested in a track segment need or will require the same level of cant deficiency, and, therefore, FRA does not expect all test operations to be conducted at the maximum cant deficiency specified in a track segment for each curve within that segment. FRA intends that issues specific to individual qualification tests, such as the targeted cant deficiency for each curve, be addressed in the qualification testing plan, program, and approval process.

Also, paragraph (i) is being added to § 213.345. In commenting on the NPRM, Amtrak stated that a significant paragraph approved by the Task Force has been omitted. The paragraph proposed that documents required by this section must be submitted to FRA by either the tracker owner or an operating entity that provides service with the vehicle type over trackage of one or more track owners with the written consent of all affected track owners. According to Amtrak, the second clause is an important tenet in the operating world when an entity like Amtrak wants to operate a high-speed train over trackage owned by one or more freight railroads. Without this paragraph, Amtrak believed that each of the host railroads would be required to submit the paperwork and perform the tests required.

The AAR likewise noted the Task Force's concurrence that this section would contain a requirement that all documents be submitted to FRA by either the track owner or by the operating entity with the written consents of all affected track owners. The AAR stated that FRA removed this provision without any explanation. According to the AAR, FRA should not approve any application for permission to operate vehicles at Class 6 speeds or at cant deficiencies without the concurrence of the track owner(s), which the AAR believed was the underlying intent behind the proposal that the necessary documents should be submitted either by a track owner or with the approval of the track owner(s).

FRA did not intend such a result. Paragraph (i) is, therefore, being added to this section to make clear that the documents required by this section must be provided to FRA by either (1) the track owner, or (2) a railroad that provides service with the same vehicle type over trackage of one or more track owner(s), with the written consent of each affected track owner. The Task Force concurred with this addition, making clearer and more concise what was earlier discussed prior to the publication of the NPRM. In this regard, FRA makes clear that a "railroad" includes what was previously identified as an "operator of a passenger or commuter service" in former § 213.57(e) and § 213.329(f). For example, Amtrak is a railroad that provides passenger service over trackage often owned by other entities, usually freight railroads. Amtrak is also a track owner over whose trackage numerous passenger railroads operate, such as SEPTA and New Jersey Transit.

Finally, Bombardier submitted a comment concerning paragraph 3 of Appendix D to Part 213. Paragraph 3 proposed that, for a comprehensive safety evaluation, the track owner or railroad identify any non-redundant suspension system element or component that may present a single point of failure. The paragraph further proposed that additional MCAT (Minimally Compliant Analytical Track) simulations be included that reflect the fullydegraded mode of the vehicle type's performance due to such a failure. Bombardier objected to proposed paragraph 3, stating that the proposal was not taken into consideration by the Task Force in any of the simulations conducted to develop the proposed track geometry limits. According to Bombardier, should such a requirement be contemplated, it would be necessary to reassess completely the allowable track geometry limits proposed, and neither simulations nor testing had been performed on any existing vehicles that reflect these conditions. Bombardier added that the purpose of MCAT is to evaluate vehicle response to fully-degraded track conditions that represent single-point failures, or near-failures, of the track and in some cases combined track anomalies. If the intent of this paragraph is for the vehicle to meet the vehicle/track interaction safety limits, with the track containing failures(s) and the vehicle suspension containing a single-point failure, Bombardier stated that this would amount to a combined failure which, while theoretically possible, has not been identified as a real issue. Bombardier further stated that most suspension system components, by nature, cannot have redundant elements and that this is true on all ground-based transportation systems. Bombardier believed that other provisions, both then-existing and proposed, relating to suspension system maintenance adequately address the concerns raised by the proposal with respect to the vehicle. Bombardier maintained that to require further tightening of track geometry standards to address combined track and vehicle suspension failures is unnecessary and impractical. Bombardier also stated that many vehicles have been qualified in accordance with § 213.345 since its promulgation in 1998, and FRA had not indicated why this provision was added as related to past experience or unsafe conditions. Bombardier, therefore, requested that the provision be removed and that FRA clarify that it was not FRA's intent to include such a requirement.

FRA is not including proposed paragraph 3 as a requirement of this final rule's appendix. FRA intends that, for purposes of vehicle/track system safety planning, a comprehensive safety evaluation include the identification of non-redundant suspension system elements or components that may present a single point of failure. Conducting MCAT simulations reflecting the vehicle type's performance in such a fully-degraded mode can then be used to inform safety decisions more fully. However, FRA did not intend to impose a requirement that the MCAT safety performance criteria be met under such circumstances. Nonetheless, should the simulations identify potential safety concerns, the information could be considered for equipment inspection, testing, and maintenance purposes, for example, to help develop appropriate inspection, testing, and maintenance criteria and procedures for the equipment.

#### **Background**

As noted previously, FRA decided that the proceeding to revise part 213 should advance under the Railroad Safety Advisory Committee (RSAC) to help fulfill the statutory mandates. In March 1996, FRA established the Railroad Safety Advisory Committee (RSAC), which provides a forum for developing consensus recommendations to FRA's Administrator on rulemakings and other safety program issues. The RSAC includes representatives from all of the major stakeholder groups, including railroads, labor organizations, suppliers and manufacturers, and other interested parties.

### A list of member groups follows:

American Association of Private Railroad Car Owners (AARPCO);

American Association of State Highway & Transportation Officials (AASHTO);

American Chemical 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 Employes 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); 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.

On May 20, 2003, FRA presented, and RSAC accepted, the task of reviewing existing passenger equipment safety needs and programs and recommending consideration of specific actions that could be useful in advancing the safety of rail passenger service.

The RSAC established the Passenger Safety Working Group (Working Group) to handle this task and develop recommendations for the full RSAC to consider.

The members of the Working Group, in addition to FRA, include the following:

Association of American Railroads (AAR)\*;

American Public Transportation Association (APTA)\*\*;

American Association of Private Railroad Car Owners (AAPRCO);

American Short Line and Regional Railroad Association (ASLRRA);

American Association of State Highway and Transportation Officials (AASHTO);

Association of State Rail Safety Managers (ASRSM);

Brotherhood of Locomotive Engineers and Trainmen (BLET);

Brotherhood of Maintenance of Way Employes Division (BMWED);

Brotherhood of Railroad Signalmen (BRS);

Kandrew, Inc.;

National Railroad Passenger Corporation (Amtrak);

Transportation Technology Center, Inc. (TTCI); and

United Transportation Union (UTU)

- \* AAR includes members from BNSF Railway Company (BNSF), CSX Transportation, Inc. (CSX), and Union Pacific Railroad Company (UP).
- \*\* APTA includes members from Bombardier, Inc., LDK Engineering, Herzog Transit Sevices, Inc., Long Island Rail Road (LIRR), Maryland Transit Administration (MTA), Metro-North Commuter Railroad Company, Northeast Illinois Regional Commuter Railroad Corporation (Metra), Southern California Regional Rail Authority, and Southeastern Pennsylvania Transportation Authority.

Staff from DOT=s John A. Volpe National Transportation Systems Center (Volpe Center) attended all of the meetings and contributed to the technical discussions. Staff from the NTSB also participated in the Working Group's meetings. The Working Group held 13 meetings on the following dates and in the following locations:

- ! September 9-10, 2003, in Washington, DC;
- ! November 6, 2003, in Philadelphia, PA;
- ! May 11, 2004, in Schaumburg, IL;
- ! October 26-27, 2004, in Linthicum/Baltimore, MD; March 9-10, 2005, in Ft. Lauderdale, FL;
- ! September 7, 2005, in Chicago, IL;
- ! March 21-22, 2006, in Ft. Lauderdale, FL;
- ! September 12-13, 2006, in Orlando, FL;
- ! April 17-18, 2007, in Orlando, FL;
- ! December 11, 2007, in Ft. Lauderdale, FL;
- ! June 18, 2008, in Baltimore, MD:

- ! November 13, 2008, in Washington, DC;
- ! June 8, 2009, in Washington, DC; and
- ! September 16, 2010, in Chicago, IL.

Due to the variety of issues involved, at its November 2003 meeting the Working Group established four task forces -- smaller groups to develop recommendations on specific issues within each group's particular area of expertise. Members of the task forces include various representatives from the respective organizations that are part of the larger Working Group. One of these task forces was assigned the job of identifying and developing issues and recommendations specifically related to the inspection, testing, and operation of passenger equipment as well as concerns related to the attachment of safety appliances on passenger equipment. An NPRM on these topics was published on December 8, 2005 (see 70 FR 73069), and a final rule was published on October 19, 2006 (see 71 FR 61835).

Another of these task forces was assigned the job of developing recommendations related to window glazing integrity, structural crashworthiness, and the protection of occupants during accidents and incidents. The work of this task force led to the publication of an NPRM focused on enhancing the front end strength of cab cars and multiple-unit (MU) locomotives on August 1, 2007 (see 72 FR 42016), and the publication of a final rule on January 8, 2010 (see 75 FR 1180).

Another task force, the Emergency Preparedness Task Force, was established to identify issues and develop recommendations related to emergency systems, procedures, and equipment. An NPRM on these topics was published on August 24, 2006 (see 71 FR 50276), and a final rule was published on February 1, 2008 (see 73 FR 6370).

The fourth task force, the Track/Vehicle Interaction Task Force (also identified as the Vehicle/Track Interaction Task Force or Task Force), was established to identify issues and develop recommendations related to the safety of vehicle/track interactions. Initially, the Task Force was charged with considering a number of issues, including vehicle-centered issues involving flange angle, tread conicity, and truck equalization; the necessity for instrumented wheelset tests for operations at speeds from 90 to 125 m.p.h.; consolidation of vehicle trackworthiness criteria in parts 213 and 238; and revisions of track geometry standards. The Task Force was given the responsibility of addressing other vehicle/track interaction safety issues and to recommend any research necessary to facilitate their resolution. Members of the Task Force, in addition to FRA, include the following:

- ! Association of American Railroads (AAR);
- ! American Association of State Highway and Transportation Officials (AASHTO);
- ! Amtrak;
- ! APTA, including members from Bombardier, Interfleet Technology, Inc., LIRR, LTK Engineering Services, Port Authority Trans-Hudson, and STV Inc.;

- ! BMWED; and
- ! BRS.

Staff from the Volpe Center attended all of the meetings and contributed to the technical discussions through their comments and presentations. In addition, staff from ENSCO, Inc., attended all of the meetings and contributed to the technical discussions, as a contractor to FRA. Both the Volpe Center and ENSCO, Inc., have supported FRA in the preparation of this NPRM.

The Task Force has held 32 meetings on the following dates and in the following locations:

- April 20-21, 2004, in Washington, DC;
- May 24, 2004, in Springfield, VA (technical subgroup only);
- June 24-25, 2004, in Washington, DC;
- July 6, 2004, in Washington, DC (technical subgroup only);
- July 22, 2004, in Washington, DC (technical subgroup only);
- August 24-25, 2004, in Washington, DC;
- October 12-14, 2004, in Washington, DC;
- December 9, 2004, in Washington, DC;
- February 10, 2005, in Washington, DC;
- April 7, 2005, in Washington, DC;
- August 24, 2005, in Washington, DC;
- November 3-4, 2005, in Washington, DC;
- January 12-13, 2006, in Washington, DC;
- March 7-8, 2006, in Washington, DC;
- April 25, 2006, in Washington, DC:
- May 23, 2006, in Washington, DC;
- July 25-26, 2006, in Cambridge, MA;
- September 7-8, 2006, in Washington, DC;
- November 14-15, 2006, in Washington, DC;
- January 24-25, 2007, in Washington, DC;
- March 29-30, 2007, in Cambridge, MA:
- April 26, 2007, in Springfield, VA;
- May 17-18, 2007, in Cambridge, MA;
- June 25-26, 2007, in Arlington, VA;
- August 8-9, 2007, in Cambridge, MA;
- October 9-11, 2007 in Washington, DC;
- November 19-20, 2007, in Washington, DC;
- February 27-28, 2008, in Cambridge, MA;
- August 5-6, 2010, in Rockville, MD;
- August 23, 2010, in Washington, DC (via teleconference); and
- June 29,2011, in Washington, DC, (via teleconference).

The above list includes meetings of a technical subgroup comprised of representatives of the larger Task Force. These subgroup meetings were often convened the day before the larger Task Force meetings to focus on more advanced, technical issues. The results of these meetings were then presented at the larger Task Force meetings and, in turn, included in the minutes of those Task Force meetings.

# 9. Payments or gifts to respondents.

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

# 10. <u>Assurance of confidentiality</u>.

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

# 11. <u>Justification for any questions of a sensitive nature.</u>

There are no questions of a personal or sensitive nature in the proposed new requirements under §§ 213.333, 213.345, and Appendix D or in the rest of this collection of information.

The GRMS information collection requirements pertain to technical data provided to FRA or to appropriate persons designated as fully qualified under § 213.7. The recordkeeping requirement in §§§ 213.7, 213.119, and 213.305 contain only names of qualified persons and the basis of their qualification. The record of track inspection results required by §§ 213.119, 213.241, and 213.369 contains nothing of a personal nature.

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

Note: Based on the latest agency data, the total number of railroads operating in the United States is now 728.

# § 213.4 Excepted track

A track owner may designate a segment of track as excepted track provided that –

(a) The segment is identified in the timetable, special instructions, general order, or other appropriate records which are available for inspection during regular business hours.

Railroads currently list all excepted track in their timetables, which are usually issued once a year or in some cases twice a year. When a piece of track is designated excepted that is not listed in their timetables, a railroad will issue special instructions or general order identifying the excepted track. FRA estimates that this will occur approximately

20 times annually. It is estimated that it will take approximately 15 minutes for a railroad to prepare an order and issue it to all concerned. Total annual burden for this requirement is five (5) hours.

Respondent Universe: 200 railroads (6 class

I RRs; 194 class II & III RRs)

Burden time per response: 15 minutes Frequency of Response: On occasion

Annual number of Responses: 20 orders

Annual Burden:

5 hours

Calculation: 20 orders x .25

x .25 hr. = 5 hours

(b) A track owner must advise the appropriate FRA Regional Office at least 10 days prior to removal of a segment of track from excepted status.

FRA expects this to happen approximately 15 times a year. The notification can be either by phone or letter. Since it is estimated that a phone call will take approximately five (5) minutes per notification while a letter will take approximately 15 minutes per notifications, FRA believes an average of 10 minutes per notification is fairly accurate. Total annual burden for this requirement is three (3) hours.

Respondent Universe: 200 railroads (6 class

I RRs; 194 class II & III RRs)

Burden time per response: 10 minutes Frequency of Response: On occasion Annual number of Responses: 15 notifications

Annual Burden:

3 hours

**Calculation:** 

15 notific ations x 10 min. = 3 hours

Total annual burden for this entire requirement is eight (8) hours (5 + 3).

### § 213.5 Responsibility for Compliance.

If an owner of track to which this part applies assigns responsibility for 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:

- (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;
- (5) A statement as to the competence and ability of the assignee to carry out the duties of the track owner under this 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 approximately 10 notifications will be forwarded to FRA annually. It

is estimated that it will take a railroad approximately eight (8) hours to prepare its notification, review and approve it, and forward it to FRA. Total annual burden for this requirement is 80 hours.

Respondent Universe: 728 railroads (all

class I, class II, & class III RRs)

Burden time per response: 8 hours
Frequency of Response: On occasion
Annual number of Responses: 10 notifications

Annual Burden:

80 hours

<u>Calculation</u>:

notific ations x 8 hrs. = 80 hours

10

# § 213.7 Designation of qualified persons to supervise certain renewals and inspect track.

- (a) Each track owner to which this part applies shall designate qualified persons to supervise restorations and renewals of track under traffic conditions. Each person designated must have
  - (1) At least
    - (i) 1 year of supervisory experience in railroad track maintenance; or
    - (ii) A combination of supervisory experience in track maintenance and training from a course in track maintenance or from a college level educational program related to track maintenance;
  - (2) Demonstrated to the owner that he or she –

- (i) Knows and understands the requirements of this part that apply to the restoration and renewal of the track for which he or she is responsible; (Note: This is added and clarifying language in this rule that has no impact on the previous burden estimate.)
- (ii) Can detect deviations from those requirements; and
- (iii) Can prescribe appropriate remedial action to correct or safely compensate for those deviations; and
- (3) Written authorization from the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements in this part.
- (b) Each track owner to which this part applies shall designate qualified persons to inspect track for defects. Each person designated must have
  - (1) At least
    - (i) 1 year of experience in railroad track inspection; or
    - (ii) A combination of experience in track inspection and training from a course in track inspection or from a college level educational program related to track inspection;
  - (2) Demonstrated to the owner that he or she
    - (i) Knows and understands the requirements of this part that apply to the restoration and renewal of track for which he or she is responsible; (Note: This is added and clarifying language in this rule that has no impact on the previous burden estimate.)
    - (ii) Can detect deviations from those requirements; and
    - (iii) Can prescribe appropriate remedial action to correct or safely compensate for those deviations; and
  - (3) Written authorization from the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements of this part, pending review by a qualified person designated under paragraph (a) of this section.

<u>Designations</u> (fully qualified) under paragraphs (a) and (b):

Approximately 80,000 persons are employed by railroads in the inspection and maintenance of the track and structures with an estimated 20,000 of them possessing the necessary qualifications to be designated by the railroad as qualified persons. Approximately 7.5 % of that number (1,500) would be added in any one year at an estimated man-hour effort of less than 10 minutes each. The actual frequency of response varies with employee turnover. Some lists may be updated several times a year in order to be current, and some may not change all year. Based on current information, total annual burden for this requirement is 250 hours.

### Respondent Universe:

728 railroa ds (all Class I, Class II, &

Class III RRs)

Burden time per response: 10 minutes

Frequency of Response:
On
occasion

Annual number of Responses: 1,500 names Annual Burden:

250

Calculation: 1,500

names x 10 min. = 250 hours

(c) Individuals designated under paragraphs (a) or (b) of this section who inspect continuous welded rail (CWR) track or supervise the installation, adjustment, and maintenance of CWR track in accordance with the written procedures of the track owner must have:

- (1) Current qualifications under either paragraph (a) or (b) of this section:
- (3) Successfully completed a comprehensive training course specifically developed for the application of written CWR procedures issued by the track owner.

FRA expects 80,000 employees will successfully complete a comprehensive training course specifically developed for the application of written CWR procedures, and will be able to demonstrate to the track owner that he/she knows and understands the requirements of those written CWR procedures; can detect deviations from those requirements; and can prescribe appropriate remedial action to correct or safely compensate for those deviations. It is estimated that it will take approximately 24 hours to complete the comprehensive training course and demonstrate knowledge of the written CWR procedures. Total annual burden for this requirement is 1,920,000 hours.

Respondent Universe: 31 railroads (6 Class I + 25 Class

II and Class III)

Burden time per response: 24 hours Frequency of Response: On occasion

Annual number of responses:

80,000 trained employees

Annual Burden: 1,920,000 hours

<u>Calculation</u>: 80,000 trained employees x 24 hrs. = 1,920,000 hours

(4) Demonstrated to the track owner that the individual:

- (i) Knows and understands the requirements of those written CWR procedures:
- (ii) Can detect deviations from those requirements; and
- (iii) Can prescribe appropriate remedial action to correct or safely compensate for those deviations; and
- (5) Written authorization from the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements in those procedures and successfully completed a recorded examination on those procedures as part of the qualification process.

FRA expects 80,000 employees will receive written authorization from track owners to prescribe remedial actions to correct or safely compensate for deviations from the requirements in the CWR procedures after successfully completing a recorded examination on those procedures. It is estimated that it will take approximately 10 minutes to complete each written authorization and approximately 60 minutes to complete each recorded examination. Total annual burden for this requirement is 93,333 hours.

Respondent Universe: 31 railroads (6 Class I, 25 Class

II and Class III)

Burden time per response: 10 minutes + 60 minutes

Frequency of Response: On occasion

Annual number of responses:

80,000 written authorizations

+ 80,000 recorded examinations

Annual Burden: 93,333 hours

Calcul ation: 80,000 written authori

zations x 10 min. + 80,000 recorde d

examin ations x 60 min. = 93,333 hours

- (d) Persons not fully qualified to supervise certain renewals and inspect track as outlined in paragraphs (a) through (c) of this section, but with at least one year of maintenance-of-way or signal experience, may pass trains over broken rails and pull aparts provided that
  - (1) The track owner determines the person to be qualified and, as part of doing so, trains, examines, and re-examines the person periodically within two years after each prior examination on the following topics as they relate to the safe passage of trains over broken rails or pull aparts: rail defect identification, crosstie condition, track surface and alinement, gage restraint, rail end mismatch, joint bars, and maximum distance between rail ends over which trains may be allowed to pass. The sole purpose of the examination is to ascertain the person's ability to effectively apply these requirements and the examination may not be used to disqualify the person from other duties. A minimum of four hours training is required for initial training;
  - (2) The person deems it safe and train speeds are limited to a maximum of 10 m.p.h. over the broken rail or pull apart;
  - (3) The person shall watch all movements over the broken rail or pull apart and be prepared to stop the train if necessary; and
  - (4) Person(s) fully qualified under § 213.7 are notified and dispatched to the location promptly for the purpose of authorizing movements and effecting temporary or permanent repairs.

Currently, paragraph (c)(4) represents a usual and customary procedure practiced by all railroads and would not, therefore, incur any new paperwork burden.

FRA expects 250 persons to be designated as partially qualified initially. Thereafter, the actual frequency of response will vary with employee turnover and the requirement for re-qualification within two years after each prior qualification. Again, it is estimated that it will take approximately 30 minutes to designate persons as partially qualified. Total annual burden for this requirement is 125 hours.

Respondent Universe: 31 railroads (6 Class I + 25 Class II

and Class III)

Burden time per response: 30 minutes Frequency of Response: On occasion

Annual number of responses:

250 names

Annual Burden: 125 hours

ation:
250
names
x 30
min. =
125
hours

- (e) With respect to designations under paragraphs (a) through (d) of this section, each track owner must maintain written records of
  - (1) Each designation in effect;
  - (2) The basis for each designation; and
  - (3) Track inspections made by each designated qualified person as required by § 213.241. These records shall be kept available for inspection or copying by the Federal Railroad Administration during regular business hours.

This basic requirement has been in existence since 1972. The only new paperwork

involved is to update the current list maintained by the railroads and to add any employees who would now be designated as partially qualified under the requirements of newly added paragraph (c) of this section. This burden is included above.

Total annual burden for this entire requirement is 2,013,708 hours (250 + 1,920,000 + 93,333 + 125).

#### § 213.17 Waivers.

Any owner of track to which this part applies, or other person subject to this part, may petition the Federal Railroad Administrator for a waiver from any or all requirements prescribed in this Part. 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 annually. It is estimated that it will take a railroad approximately 112 hours to prepare its petition and forward it to FRA. Total annual burden for this requirement is 672 hours.

Respondent Universe: 728 railroads
Burden time per response: 112 hours
Frequency of Response: On occasion
Annual number of Responses: 6 petitions

Annual Burden:

672 hours

Calculation: 6 petitio ns x

112 hrs. = 672 hours

§ 213.57 Curves; elevation and speed limitations.

- A. (d) Each vehicle type must be approved by FRA to operate on track with a qualified cant deficiency, E<sub>u</sub>, greater than 3 inches. Each vehicle type must demonstrate, in a ready-for-service load condition, compliance with the requirements of either paragraph (d)(1) or (d) (2) of this section.
  - (1) When positioned on a track with a uniform superelevation equal to the proposed cant deficiency:
  - (i) No wheel of the vehicle type unloads to a value less than 60 percent of its static value on perfectly level track; and (ii) For passenger cars, the roll angle between the floor of the equipment and the horizontal does not exceed 8.6 degrees; or
  - (2) When operating through a constant radius curve at a constant speed corresponding to the proposed cant deficiency, and a test plan is submitted to and approved by FRA in accordance with § 213.345(e) and (f):
  - (i) The steady-state (average) load on any wheel, throughout the body of the curve, is not less than 60 percent of its static value on perfectly level track; and
  - (ii) For passenger cars, the steady-state (average) lateral acceleration measured on the floor of the carbody does not exceed 0.15g.

The burden for test plans is included under that of § 213.345(e) and (f) below. Consequently, there is no additional burden associated with the above requirement.

- (e) The track owner or railroad shall transmit the results of the testing specified in paragraph (d) of this section to FRA's Associate Administrator for Railroad Safety/Chief Safety Officer requesting approval for the vehicle type to operate at the desired curving speeds allowed under the formula in paragraph (b) of this section. The request shall be made in writing and shall contain, at a minimum, the following information —
- (1) A description of the vehicle type involved, including schematic diagrams of the suspension system(s) and the estimated location of the center of gravity above top of rail;
- (2) The test procedure, including the load condition under which the testing was performed, and description of the instrumentation used to qualify the vehicle type, as well as the maximum values for wheel unloading and roll angles or accelerations that were observed during testing; and
- (3) For vehicle types not subject to parts 229 or 238 of this chapter, procedures or standards in effect that relate to the maintenance of all safety-critical components of the suspension system(s) for the particular vehicle type. Safety-critical components of the suspension system are those that impact or have significant influence on the roll of the carbody and the distribution of weights on the wheels. (*Note: Amended requirement for*

old § 213.57(d); there is no change in burden from the previous estimate of 80 hours which is part of the total burden of 160 hours below.)

FRA estimates that approximately two (2) documented requests will be submitted to FRA each year for approval of vehicle types that include the results of testing under the above requirement. Under this requirement, a static lean test has to be completed and data have to be collected, organized, and submitted to the agency (along w/the test plan required in § 213.57(d) above). Thus, it is estimated that it will take the track owner or railroad approximately 80 hours to conduct the necessary testing, complete the necessary documents, and send them to FRA. Total annual burden for this requirement is 160 hours.

> 728 railroads Respondent Universe:

Burden time per response: 80 hours Frequency of Response: On occasion Annual number of Responses: 2 documented requests

Annual Burden:

160 hours

**Calculation:** 2 documents x 80 hrs. = 160 hours

В. (f) In approving the request made pursuant to paragraph (e) of this section, FRA may impose conditions necessary for safely operating at the higher curving speeds. Upon FRA approval of the request, the track owner or railroad shall notify FRA in writing no less than 30 calendar days prior to the proposed implementation of the approved higher curving speeds allowed under the formula in paragraph (b) of this section. The notification shall contain, at a minimum, identification of the track segment(s) on which the higher curving speeds are to be implemented. (Note: Although the above language is somewhat different from the previous 213.57(d) (3), this requirement is not a new one; it was not specifically accounted for in the previous submission.)

Given the above two requests, FRA estimates that approximately two (2) notifications will be sent to FRA under this requirement. It is estimated that it will take the track owner or railroad approximately eight (8) hours to complete each notification and it to FRA. Total annual burden for this requirement is 16 hours.

> Respondent Universe: 728 railroads

Burden time per response: 8 hours Frequency of Response: Annual number of Responses: Annual Burden: On occasion 2 notifications

16 hours

**Calculation:** 2 notifications x 8 hrs. = 16 hours

- C. (g) The documents required by this section must be provided to FRA by:
  - (1) The track owner; or
  - (2) A railroad that provides service with the same vehicle type over trackage of one or more track owner(s), with the written consent of each affected track owner.

FRA estimates that approximately two (2) written consents of other track owners will be obtained by track owners/railroads under the above requirement. Because of the extensive communication entailed (vetting by the maintenance and legal departments), it is estimated that it will take approximately eight (8) hours to obtain the necessary written consent. Total annual burden for this requirement is 16 hours.

Respondent Universe: 728 railroads

Burden time per response: 8 hours
Frequency of Response: On occasion
Annual number of Responses: 2 written consents

Annual Burden:

16 hours

**Calculation:** 2 written consents x 8 hrs. = 16 hours

(h)(1) Vehicle types permitted by FRA to operate at cant deficiencies,  $E_u$ , greater than 3 inches but not more than 5 inches shall be considered qualified under this section to operate at those permitted cant deficiencies for any track segment. The track owner or

railroad shall notify FRA in writing no less than 30 calendar days prior to the proposed implementation of such curving speeds in accordance with paragraph (f) of this section.

The burden for this requirement is already included under that of § 213.57(f) above. Consequently, there is no additional burden associated with the above requirement.

Total annual burden for this entire requirement is 192 hours (160 + 16 + 16).

## § 213.110 Gage restraint measurement systems.

- A. A track owner may elect to implement a Gage Restraint Measurement System (GRMS), supplemented by the use of a Portable Track Loading Fixture (PTLF), to determine compliance with the crosstie and fastener requirements specified in §§213.109 and 213.127 provided that: (1) The track owner notifies the appropriate FRA Regional office at least 30 days prior to the designation of any line segment on which GRMS technology will be implemented; and (2) The track owner notifies the appropriate FRA Regional office at least 10 days prior to the removal of any line segment from GRMS designation. Initial notification under paragraph (a)(1) of this section shall include: (1) Identification of the line segment(s) by timetable designation, milepost limits, class of track, or other identifying criteria; and (2) The most recent record of million gross tons of traffic per year over the identified segment(s). The track owner shall also provide to FRA sufficient technical data to establish compliance with the minimum design requirements of a GRMS vehicle:
  - (2) Gage restraint shall be measured between the heads of rail –
  - (i) At an interval not exceeding 16 inches;
  - (ii) Under an applied vertical load of no less than 10 kips per rail; and(iii) Under an applied lateral load which provides for a lateral/vertical load ratio between 0.5 and 1.25, and a load severity greater than 3kips but less than 8 kips per rail.

FRA estimates that approximately two (2) notifications will be provided to FRA Regional offices under the first part of this requirement. FRA also estimates that approximately once a year track owners will provide the necessary technical data under the second part of this requirement. It is estimated that it will take approximately 24 hours to complete each notification and forward it to the appropriate Regional office, and an additional 24 hours to gather the necessary GRMS technical data. Total annual burden for this requirement is 72 hours.

Respondent Universe: 728 Railroads
Burden time per response: 24 hours
Frequency of Response: On occasion

Annual number of Responses: Annual Burden:

2 notifications + 1 technical report

72 hours

**<u>Calculation</u>**: 2 notifications x 24 hrs. + 1 report x 24 hrs. = 72 hours

B. The GRMS vehicle shall be capable of producing output reports that provide a trace, on a constant-distance scale, of all parameters specified in paragraph (l) of this section.

FRA estimates that approximately 50 output reports will be produced each year under the above requirement. The output reports are generated in real time. It is estimated that it will take approximately 60 minutes for the entire process to produce each output report. Total annual burden for this requirement is 50 hours.

Respondent Universe: 728 Railroads

Burden time per response: 60 minutes Frequency of Response: On occasion Annual number of Responses: 50 output reports

Annual Burden:

50 hours

50

<u>Calculation</u>:

output reports x 60 min. = 50 hours

B. The GRMS vehicle shall be capable of providing an exception report containing a systematic listing of all exceptions, by magnitude and location, to all the parameters specified in paragraph (l) of this section. The exception reports required by this section shall be provided to the appropriate person designated as fully qualified under §213.7 prior to the next inspection required under §213.233 of this Part.

FRA estimates that approximately 50 exception reports will be provided to appropriate person designated as fully qualified under §213.7 prior to the next inspection required under §213.233 of this part. Again, this report is generated in real time. It is estimated that it will take approximately 60 minutes to complete each output report. Total annual burden for this requirement is 50 hours.

Respondent Universe: 728 Railroads

Burden time per response: 60 minutes
Frequency of Response: On occasion
Annual number of Responses: 50 exception reports

Annual Burden:

50 hours

<u>Calculation</u>: 50

excepti on reports x 60 min. = 50 hours

D. The track owner shall institute the necessary procedures for maintaining the integrity of the data collected by the GRMS and PTLF systems. At a minimum, the track owner shall: (1) Maintain and make available to the Federal Railroad Administration (FRA) documented calibration procedures on each GRMS vehicle which, at a minimum, shall specify a daily instrument verification procedure that will ensure correlation between measurements made on the ground and those recorded by the instrumentation with respect to loaded and unloaded gage parameters; and (2) Maintain each PTLF used for determining compliance with the requirements of this section such that the 4,000-pound reading is accurate to within five percent of that reading.

FRA estimates that approximately four (4) documented calibration procedures for GRMS vehicles will be developed and made available to FRA under this requirement. It is estimated that it will take approximately two (2) hours for each railroad to compose the required documented calibration procedure and forward it to FRA. Total annual burden for this requirement is eight (8) hours.

Respondent Universe:
Burden time per response:
Frequency of Response:
Annual number of Responses:
Annual Burden:

728 Railroads
2 hours
On occasion
4 documented procedures

8 hours

**Calculation:** 

docum ented proced ures x 2 hrs. = 8 hours

- E. The track owner shall provide training in GRMS technology to all persons designated as fully qualified under §213.7 and whose territories are subject to the requirements of this section. The training program shall be made available to the Federal Railroad Administration (FRA) upon request. At a minimum, the training program must address the following:
  - (1) Basic GRMS procedures;
  - (2) Interpretation and handling of exception reports generated by the GRMS vehicle:
  - (3) Locating and verifying defects in the field;
  - (4) Remedial action requirements;
  - (5) Use and calibration of the PTLF; and
  - (6) Recordkeeping requirements.

FRA estimates that approximately two (2) training programs will be established and that 100 employees will be trained in five (5) training sessions under the above requirements. It is estimated that it will take approximately 24 hours to develop each training program and an additional 16 hours to conduct each training session so that all designated persons fully qualified under §213.7 are properly trained. Total annual burden for this requirement is 168 hours.

Respondent Universe: 728 Railroads

Burden time per response: 24 hours Frequency of Response: On occasion

Annual number of Responses: 2 training programs + 5 training sess.

Annual Burden:

168 hours

**Calculation:** 2 training prog. x 24 hrs. + 5 training sess. x 24 hrs =

168 hours

F. The track owner shall maintain a record of the two most recent GRMS inspections at locations which meet the requirements specified in §213.241(b) of this part. At a minimum, records shall indicate the following: (1) Location and nature of each First Level exception; and (2) Nature and date of remedial action, if any, for each exception identified in paragraph (n)(1) of this section.

FRA estimates that approximately 50 records will be maintained under this requirement. It is estimated that it will take approximately two (2) hours to complete each record. Total annual burden for this requirement is 100 hours.

Respondent Universe: 728 Railroads

Burden time per response: 2 hours Frequency of Response: On occasion

Annual number of Responses: 50 records

Annual Burden:

100 hours Calculation: 50 records x 2 hrs. = 100

hours

Total annual burden for this entire requirement is 448 hours (72 + 50 + 50 + 8 + 168 + 100).

# § 213.118 Continuous welded rail (CWR); plan review and approval.

- (a) Each track owner with track constructed of CWR must have in effect and comply with a plan that contains written procedures which address: the installation, adjustment, maintenance and inspection of CWR; inspection of CWR joints; and a training program for the application of those procedures.
- (b) The track owner must file its CWR plan with the FRA Associate Administrator for Safety/Chief Safety Officer (Associate Administrator). Within 30 days of receipt of the submission, FRA will review the plan for compliance with this subpart. FRA will approve, disapprove or conditionally approve the submitted plan, and will provide written notice of its determination.
- (c) The track owner's existing plan shall remain in effect until the track owner's new plan is approved or conditionally approved and is effective pursuant to paragraph (d) of this section

FRA estimates that all 728 railroads will revise their plans to include the new CWR procedures required under the above requirement. It is estimated that it will take approximately four (4) hours to revise each plan and submit it to FRA. Total annual burden for this requirement is 2,912 hours.

Respondent Universe: 728 Railroads

Burden time per response: 4 hours
Frequency of Response: On occasion
Annual number of Responses: 728 revised plans

Annual Burden:

hours

**Calculation:** 

728
revised
plans x
4 hrs.
=
2,912
hours

(d) The track owner shall, upon receipt of FRA's approval or conditional approval establish the plan's effective date. The track owner shall advise in writing FRA and all affected employees of the effective date.

FRA estimates that approximately 728 written notifications advising FRA and an additional 80,000 notifications advising affected employees will be made by track owners/railroads under the above requirement. It is estimated that it will take approximately 15 minutes to complete and send each written notification to FRA and approximately two minutes to complete and provide each written notification to affected employees. Total annual burden for this requirement is 2,849 hours.

Respondent Universe: 728 Railroads
Burden time per response: 15 minutes + 2 minutes

Frequency of Response: On occasion

Annual number of Responses: 728 written notifications + 80,000

written notifications

Annual Burden:

2,849 hours

**Calculation:** 728 written notifications x 15 min. + 80,000 written notifications x 2 min. = 2,849 hours

(e) FRA, for cause stated, may, subsequent to plan approval or conditional approval, require revisions to the plan to bring the plan into conformity with this subpart. Notice of a revision requirement shall be made in writing and specify the basis of FRA's

requirement. The track owner may, within 30 days of the revision requirement, respond and provide written submissions in support of the plan.

FRA estimates that approximately 20 plans will require revisions and, as a result, 20 written submissions will be sent to the agency in support of the plan under the above requirement. It is estimated that it will take approximately two (2) hours to complete each written submission. Total annual burden for this requirement is 40 hours.

Respondent Universe: 728 Railroads

Burden time per response: 2 hours
Frequency of Response: On occasion
Annual number of Responses: 20 written submissions

Annual Burden:

40 hours

**Calculation:** 20 written submissions x 2 hrs. = 40 hours

(e) FRA renders a final decision in writing. Not more than 30 days following any final decision requiring revisions to a CWR plan, the track owner must amend the plan in accordance with FRA's decision and resubmit the conforming plan. The conforming plan becomes effective upon its submission to FRA.

FRA estimates that approximately 20 plans will be amended under the above requirement. It is estimated that it will take approximately one (1) hour to complete each amended plan. Total annual burden for this requirement is 20 hours.

Respondent Universe: 728 Railroads

Burden time per response: 1 hour Frequency of Response: On occasion Annual number of Responses: 20 amended plans

Annual Burden:

20 hours

Calculation: 20

amend

ed plans x 1 hr. = 20 hours

Total annual burden for this entire requirement is 5,821 hours (2,912 + 2,849 + 40 + 20).

# § 213.119 Continuous welded rail (CWR); plan contents.

The track owner shall comply with the contents of the CWR plan approved or conditionally approved under § 213.118. The plan shall contain the following elements –

- (a) Procedures for the installation and adjustment of CWR which include
  - (1) Designation of a desired rail installation temperature range for the geographic area in which the CWR is located; and
  - (2) De-stressing procedures/methods which address proper attainment of the desired rail installation temperature range when adjusting CWR.
- (b) Rail anchoring or fastening requirements that will provide sufficient restraint to limit longitudinal rail and crosstie movement to the extent practical, and specifically addressing CWR rail anchoring or fastening patterns on bridges, bridge approaches, and at other locations where possible longitudinal rail and crosstie movement associated with normally expected train-induced forces, is restricted.
- (c) CWR joint installation and maintenance procedures which require that —
- (1) Each rail shall be bolted with at least two bolts at each CWR joint;
- (2) In the case of a bolted joint installed during CWR installation after (**INSERT PUBLICATION DATE OF FINAL RULE**), the track owner shall either, within 60 days
  - (i) Weld the joint;
  - (ii) Install a joint with six bolts;
  - (iii) Anchor every tie 195 feet in both directions of the joint; and
- (3) In the case of a bolted joint in CWR experiencing service failure or a failed bar with a rail gap present, the track owner shall either
  - (i) Weld the joint;

- (ii) Replace the broken bar(s), replace the broken bolts, adjust the anchors and, within 30 days, weld the joint;
- (iii) Replace the broken bar(s), replace the broken bolts, install one additional bolt per rail end, and adjust anchors;
- (iv) Replace the broken bar(s), replace the broken bolts, and anchor every tie 195 feet in both directions from the CWR joint; or
- (v) Replace the broken bar(s), replace the broken bolts, add rail with provisions for later adjustment pursuant to paragraph (d)(2) of this section, and reapply the anchors.
- (d) Procedures which specifically address maintaining a desired rail installation temperature range when cutting CWR, including rail repairs, in-track welding, and in conjunction with adjustments made in the area of tight track, a track buckle, or a pull-apart. Rail repair practices shall take into consideration existing rail temperature so that —
- (1) When rail is removed, the length installed shall be determined by taking into consideration the existing rail temperature and the desired rail installation temperature range; and
- (2) Under no circumstances should rail be added when the rail temperature is below that designated by paragraph (a)(1) of this section, without provisions for later adjustment.
- (e) Procedures which address the monitoring of CWR in curved track for inward shifts of alinement toward the center of the curve as a result of disturbed track.
- (f)(1) Procedures which govern train speed on CWR track when
  - (i) Maintenance work, track rehabilitation, track construction, or any other event occurs which disturbs the roadbed or ballast section and reduces the lateral or longitudinal resistance of the track; and
  - (ii) The difference between the average rail temperature and the average rail neutral temperature is in a range that causes buckling-prone conditions to be present at a specific location; and
- (3) In formulating the procedures under paragraph (f)(1) and (f)(2) of this section, the track owner shall
  - (i) Determine the speed required, and the duration and subsequent removal of any speed restriction based on the restoration of the ballast, along with sufficient ballast re-consolidation to stabilize the track to a level that can

accommodate expected train-induced forces. Ballast re-consolidation can be achieved through either the passage of train tonnage or mechanical stabilization procedures, or both; and

(ii) Take into consideration the type of crossties used.

The burden for the earlier one-time requirements, which have already been fulfilled, was accounted for in the previously approved submission. The burden for the amended requirements for CWR plans is included under that of § 213.118 above. Consequently, there is no additional burden associated with these requirements.

- (g) Procedures which prescribe when physical track inspections are to be performed.
  - (1) At a minimum, these procedures must address inspecting track to identify:
  - (i) Buckling prone conditions in CWR track, including –
  - (A) Locations where tight or kinky rail conditions are likely to occur;
  - (B) Locations where track work of the nature described in paragraph (f)(1)(i) of this section have recently been performed; and
  - (ii) Pull-apart prone conditions in CWR track, including locations where pullapart or stripped-joint rail conditions are likely to occur; and
  - (2) In formulating the procedures under paragraph (g)(1) of this section, the track owner must –
  - (i) Specify when the inspections will be conducted; and
  - (ii) Specify the appropriate remedial actions to be taken when either bucklingprone or pull-apart conditions are found.
- (h) Procedures which describe the scheduling and conduct of inspections to detect cracks and other indications of potential failures in CWR joints. In formulating the procedures under this paragraph, the track owner must --
  - (1) Address the inspection of joints and the track structure at joints, including, at a minimum, periodic on-foot inspections;
  - (2) Identify joint bars with visible or otherwise detectable cracks and conduct remedial action pursuant to § 213.121;
  - (3) Specify the conditions of actual or potential joint failure for which

personnel must inspect, including, at a minimum, the following items:

- (i) Loose, bent, or missing joint bolts;
- (ii) Rail end batter or mismatch that contributes to the instability of the joint; and
- (iii) Evidence of excessive longitudinal rail movement in or near the joint, including, but not limited to: wide rail gap, defective joint bolts, disturbed ballast, surface deviations, gap between tie plates and rail, or displaced rail anchors;
- (4) Specify the procedures for the inspection of CWR joints that are imbedded in highway-rail crossings or in other structures that prevent a complete inspection of the joint, including procedures for the removal from the joint of loose material or other temporary material;
- (5) Specify the appropriate corrective actions to be taken when personnel find conditions of actual or potential joint failure, including on-foot follow-up inspections to monitor conditions of potential joint failure in any period prior to completion of repairs.
- (6) Specify the timing of periodic inspections, which shall be based on the configuration and condition of the joint:
  - (i) Except as provided in paragraphs (h)(6)(ii) through (iv) of this section, track owners must specify that all CWR joints are inspected, at a minimum, in accordance with intervals identified in the table in this section (213.119(h)(6)(i));
  - (ii) Consistent with any limitations applied by the track owner, a passenger train conducting an unscheduled detour operation may proceed over track not normally used for passenger operations at a speed not to exceed the maximum authorized speed otherwise allowed, even though CWR joints have not been inspected in accordance with the frequency identified in paragraph (h)(6)(i) of this section, provided that:
  - (A) All CWR joints have been inspected consistent with requirements for freight service; and
  - (B) The unscheduled detour operation lasts no more than 14 consecutive calendar days. In order to continue operations beyond the 14-day period, the track owner must inspect the CWR joints in accordance with the requirements of paragraph (h)(6)(i) of this

section;

- (iii) Tourist, scenic, historic, or excursion operations, if limited to the maximum authorized speed for passenger trains over the next lower class of track, need not be considered in determining the frequency of inspections under paragraph (h)(6)(i) of this section.
- (iv) All CWR joints that are located in switches, turnouts, track crossings, lift rail assembles or other transition devices on moveable bridges must be inspected on foot at least monthly, consistent with the requirements in § 213.235; and all records of those inspections must be kept in accordance with the requirements of § 213.241. A track owner may include in its § 213.235 inspections, in lieu of the joint inspections required by paragraph (h)(6)(i) of this section, CWR joints that are located in track structure that is adjacent to switches and turnouts, provided that the track owner precisely defines the parameters of that arrangement in the CWR plans.

The burden for the earlier one-time requirements, which have already been fulfilled, was accounted for in the previously approved submission. The burden for the amended requirements for CWR plans is included under that of § 213.118 above. Consequently, there is no additional burden associated with these requirements.

- (7) Specify the recordkeeping requirements related to joint bars in CWR, including the following:
  - (i) The track owner shall keep a record of each periodic and follow-up inspection required to be performed by the track owner's CWR plan, except for those inspections conducted pursuant to § 213.235 for which track owners must maintain records pursuant to § 213.241. The record shall be prepared on the day the inspection is made and signed by the person making the inspection. The record shall include, at a minimum, the following items: the boundaries of the territory inspected; the nature and location of any deviations at the joint from the requirements of this part or of the track owner's CWR plan, with the location identified with sufficient precision that personnel could return to the joint and identify it without ambiguity; the date of the inspection; the remedial action, corrective action, or both, that has been taken or will be taken; and the name or identification number of the person who made the inspection. (*Note: The burden for this requirement* is included under that of § 213.119(j)(3) below.)

- (ii) The track owner shall generate a Fracture Report for every cracked or broken CWR joint bar that the track owner discovers during the course of an inspection conducted pursuant to §§ 213.119(g), 213.233, or 213.235 on track that is required under §213.119(h)(6) (i) to be inspected.
- (A) The Fracture Report shall be prepared on the day the cracked or broken joint is discovered. The Report shall include, at a minimum: the railroad name; the location of the joint bar as identified by milepost and subdivision; the class of track; annual million gross tons for the previous calendar year; the date of the discovery of the crack or break; the rail section; the type of bar (standard, insulated, or compromise); the number of holes in the joint bar; a general description of the location of the crack or break in bar; the visible length of the crack in inches; the gap measurement between rail ends; the amount and length of rail end batter or ramp on each rail end; the amount of tread mismatch; the vertical movement of joint; and in curves or spirals, the amount of gage mismatch and the lateral movement of the joint.
- (B) The track owner shall submit the information contained in the Fracture Reports to the FRA Associate Administrator twice annually, by July 31 for the preceding six-month period from January 1 through June 30 and by January 31 for the preceding sixmonth period from July 1 through December 31.
  - (C) After February 1, 2010, any track owner may petition FRA to conduct a technical conference to review the Fracture Report data submitted through December of 2009 and assess whether there is a continued need for the collection of Fracture Report data. The track owner shall submit a written request to the Associate Administrator, requesting the technical conference and explaining the reasons for proposing to discontinue the collection of the data.

The burden for the periodic and follow-up inspections mentioned above requirement is included under that of § 213.119(j)(3) below. Consequently, there is no additional burden associated with this requirement.

FRA estimates that approximately 12,000 Fracture Reports annually will be prepared under the above requirement. It is estimated that it will take approximately 10 minutes to prepare each report. Total annual burden for this requirement is 2,000 hours.

Respondent Universe: 239 railroads (39

Class I and IIs, & 200 Class IIIs) + 1

**RR** Association

Burden time per response: 10 minutes Frequency of Response: Bi-annually Annual number of Responses: 12,000 Fracture Reports

> Annual Burden:

> > 2,000

hours

**Calculation:** 12,000

Fractur

e

Report s x 10 min. = 2,000 hours

Regarding petitions to conduct a technical conference under (c) above to discuss discontinuing fracture reports, FRA estimates that AAR will submit a petition on behalf of all 239 railroads. It is estimated that it will take approximately 15 minutes to prepare the petition and submit it to FRA. Total annual burden for this requirement is 15 minutes.

> Respondent Universe: 1 RR Association

> > (AAR)

15 minutes Burden time per response: Frequency of Response: On occasion

Annual number of Responses: 1 petition

> Annual Burden:

> > .25

hour

**Calculation:** 1 petition x 15 min. (8)In lieu of the requirements for the inspection of rail joints contained in paragraphs (h)(1) through (h)(7) of this section, a track owner may seek approval from FRA to use alternate procedures. (i) The track owner must submit the proposed alternate procedures and a supporting statement of justification to the Associate Administrator for Safety (Associate Administrator). (ii) If the Associate Administrator finds that the proposed alternate procedures provide an equivalent or higher level of safety than the requirements in paragraphs (h)(1) through (h)(7) of this section, the Associate Administrator will approve the alternate procedures by notifying the track owner in writing. The Associate Administrator will specify in the written notification the date on which the procedures will become effective and, after that date, the track owner must comply with the procedures. If the Associate Administrator determines that the alternate procedures do not provide an equivalent level of safety, the Associate Administrator will disapprove the alternate procedures in writing, and the track owner shall continue to comply with the requirements in paragraphs (h)(1) and (h)(7) of this section. (iii) While a determination is pending with the Associate Administrator on a request submitted pursuant to paragraph (h)(8) of this section, the track owner must continue to comply with the requirements contained in paragraphs (h)(1) through (h)(7) of this section.

The burden for the above requirement is a one-time burden which has already been fulfilled. Consequently, there is no additional burden associated with this requirement.

(i) The track owner must have in effect a comprehensive training program for the application of these written CWR procedures, with provisions for annual retraining, for those individuals designated under § 213.7(c) as qualified to supervise the installation, adjustment, and maintenance of CWR track and to perform inspections of CWR track. The track owner must make the training program available for review by FRA upon request.

FRA previously estimated that approximately 240 training programs for the application of the required written CWR procedures would be modified to meet the above requirement. It is estimated that it will take approximately one (1) hour for all 239 railroads plus ASLRRA to further amend their training programs to include provisions for annual training as stipulated above. Total annual burden for this requirement is 240 hours.

Respondent Universe:
239 railroads (39 Class I and
IIs, & 200 Class III RRs) +
ASLRRA

Burden time per response:

1 hour

Frequency of Response: One-time

Annual number of Responses: 240 amended training programs

Annual Burden

:

240 hours

**<u>Calculation</u>**: 240 training programs x 1 hr. = 240 hours

## Annual CWR Re-Training of Employees After First Year

FRA expects all 80,000 employees will receive annual re-training under the above requirement. It is estimated that it will take approximately 30 minutes to complete the comprehensive training course and demonstrate knowledge of the written CWR procedures. Total annual burden for this requirement is 40,000 hours.

Respondent Universe: 31 railroads (6 Class I + 25 Class

II and Class III)

Burden time per response: 30 minutes Frequency of Response: On occasion

Annual number of responses:

80,000 re-trained employees

Annual Burden: 40,000 hours

**<u>Calculation</u>**: 80,000 re-trained employees x 30 min. =

40,000 hours

- (j) The track owner shall prescribe and comply with recordkeeping requirements necessary to provide an adequate history of track constructed with CWR. At a minimum, these records must include:
  - (1) Rail temperature, location and date of CWR installations. Each record must be retained for at least one year;
  - (2) A record of any CWR installation or maintenance work that does not conform with the written procedures. Such record must include the location of the rail and be maintained until the CWR is brought into conformance with such procedures; and

FRA estimates that approximately 2,000 records will be kept under this requirement. It is estimated that it will take approximately 10 minutes to complete each record. Total annual burden for this requirement is 333 hours.

Respondent Universe: 239 RRs (6 Class 1

RRs; 233 Class 2 & 3 RRs)

Burden time per response: 10 minutes
Frequency of Response: On occasion

One time number of Responses: 2,000 records

One time Burden:

333 hours

<u>Calculation</u>: 2,000

records x 10 min. = 333 hours

(3) Information on inspections of rail joints as specified in paragraph (h)(7) of this section.

FRA estimates that approximately 360,000 records pertaining to rail joint inspections will be kept under the new requirement. It is estimated that it will take approximately two (2) minutes to complete each record. Total annual burden for this requirement is 12,000 hours.

Respondent Universe: 239 RRs (6 Class 1

RRs; 233 Class 2 & 3 RRs)

Burden time per response: 2 minutes Frequency of Response: On occasion One time number of Responses: 360,000 records

One time Burden:

12,000 hours

#### **Calculation:**

360,00 0 records x 2 min. = 12,000 hours

Additionally, a periodic inspection and corresponding record is required of these rail joints after the completion of the initial inspection and placement in the rail joint record inventory. Two-thirds of these initial 360,000 records (or 240,000 records) will be kept once a year as a result of periodic joint inspections, and another one-third of these initial 360,000 records will be kept twice a year (240,000 records) as a result of periodic joint inspections. Thus, FRA estimates that approximately 480,000 records will be kept under this new requirement. It is estimated that it will take approximately one (1) minute to complete each record. Total annual burden for this requirement is 8,000 hours.

Respondent Universe:

239 RRs (6 Class 1 RRs; 233

Class 2 & 3 RRs)

Burden time per response: 1 minute
Frequency of Response: On occasion
One time number of Responses: 480,000 records
One time Burden:

8,000 hours

## **Calculation:**

480,00 0 records x 1 min. = 8,000 hours

(k) The track owner must make readily available, at every job site where personnel are assigned to install, inspect or maintain CWR, a copy of the track owner's CWR procedures and all revisions, appendices, updates, and referenced materials related thereto prior to their effective date. Such CWR procedures must be issued and maintained in one CWR procedures manual.

FRA estimates that approximately 239 CWR procedures manuals will be made available under the above requirement. It is estimated that it will take approximately 10 minutes to assemble each CWR procedures manual (with all the necessary documents) and deliver it to each job site. Total annual burden for this requirement is 40 hours.

Respondent Universe: 718 Railroads

Burden time per response: 10 minutes Frequency of Response: On occasion

Annual number of Responses: 239 CWR procedures manual

Annual Burden:

40 hours

**Calculation:** 239 CWR procedures manuals x 10 min. = 40 hours

Total annual burden for this entire requirement is 65,545 hours (2,872 + 40 + 20 + 2,000 + .25 + 240 + 40,000 + 333 + 12,000 + 8,000 + 40).

#### § 213.122 Torch cut rail

Within one year of September 21, 1998, all torch cut rail ends in Class 3 track over which regularly scheduled passenger trains operate must be inventoried by the track owner. The burden for the above is a one-time requirement which has already been fulfilled. Consequently, there is no additional burden associated with this requirement.

#### § 213.233 Track inspections

Track inspection records must indicate which track(s) are traversed by the vehicle or inspected on foot as outlined in paragraph (b)(3) of this section. All Class 1, 2 and 3 track inspections must be made in accordance with the following schedule: Weekly (main track and sidings) - with at least 3 calendar days interval between inspections, or *before use*, if the track is used less than once a week, or *twice weekly* with at least one calendar day interval between inspections, if the track carries passenger trains or more than 10 million gross tons of traffic during the preceding calendar year.

Monthly (other than main track and sidings) - with at least 20 calendar days interval between inspections.

Twice weekly (Class 4 and 5 track) - with at least one (1) calendar day interval between inspections.

Railroads currently fill out track inspection reports. This information collection requirement would only involve making a notation on the inspection form as to which track they were on when inspecting two or more tracks at a time. FRA estimates that approximately 2,500 inspections occur each year. It is estimated that there will be, on average, approximately five (5) notations per inspection (or a total of 12,500 notations per year) and that it will take approximately one (1) minute to make the required notation on the inspection report. Total annual burden for this requirement is 208 hours.

Respondent Universe: 728 railroads (all class I, class II, & class III RRs)

Burden time per response: 1 minute Frequency of Response: Twice

weekly/weekly/monthly

Annual number of Responses: 12,500 notations

Annual Burden:

208 hours

Calculation: 12,500 inspect ions x

1 min.

# § 213.237 Inspection of rail

Each defective rail must be marked with a highly visible marking on both sides of the web and base.

Currently, this is a usual and customary procedure practiced by all railroads and will not, therefore, impose any additional paperwork burden on them.

#### § 213.241 Inspection records

Each owner of track to which this part applies shall keep a record of each inspection required to be performed on that track under this subpart.

Each record of an inspection under §§ 213.4, 213.119, 213.233, and 213.235 must be prepared on the day the inspection is made and signed by the person making the inspection. Records must specify the track inspected, date of inspection, location and nature of any deviation from the requirements of this part, and the remedial action taken by the person making the inspection. The owner must designate the location(s) where each original record shall be maintained for at least one year after the inspection covered by the record. The owner must also designate one location, within 100 miles of each state in which they conduct operations, where copies of records which apply to those operations are either maintained or can be viewed following 10 days notice by the Federal Railroad Administration.

Rail inspection records must specify the date of inspection, the location and nature of any internal defects found, the remedial action taken and the date thereof, and the location of any intervals of track not tested per § 213.237(d). The owner shall retain a rail inspection record for at least two years after the inspection and for one year after remedial action is taken.

Each owner required to keep inspection records under this section shall make those records available for inspection and copying by the Federal Railroad Administration.

For purposes of compliance with the requirements of this section, an owner of track may maintain and transfer records through electronic transmission, storage, and retrieval provided that —

(1) The electronic system be designed so that the integrity of each record

is maintained through appropriate levels of security such as recognition of an electronic signature, or other means, which uniquely identify the initiating person as the author of that record. No two persons shall have the same electronic identity;

- (2) The electronic storage of each record must be initiated by the person making the inspection within 24 hours following the completion of that inspection;
- (4) The electronic system must ensure that each record cannot be modified in any way, or replaced, once the record is transmitted and stored;
- (4) Any amendment to a record must be electronically stored apart from the record which it amends. Each amendment to a record must be uniquely identified as to the person making the amendment;
- (5) The electronic system must provide for the maintenance of inspection records as originally submitted without corruption or loss of data;
- (6) Paper copies of electronic records and amendments to those records that may be necessary to document compliance with this part must be made available for inspection and copying by the Federal Railroad Administration at the locations specified in paragraph (b) of this section; and
- (7) Track inspection records must be kept available to persons who performed the inspections and to persons performing subsequent inspections.

There are approximately 728 railroads subject to the inspection and reporting requirements of the Track Safety Standards. The dimension or size of the respondents spans the gamut from five-to-ten mile short lines to large common carriers.

The frequency of inspection is variable depending on the type and usage of track from one inspection and report per month for auxiliary tracks to as much as twice per week for high speed, heavy tonnage main lines or where passenger trains operate. Inspections required for the detection of internal rail flaws is limited to one inspection per year for the higher speed main tracks. No internal rail inspection is required for yard tracks or slow speed main tracks.

The burden associated with track and rail inspections is based on a presumption of track mileage by type and track class with an assumed inspection rate of 10 miles per hour and an additional five minutes per inspection hour to prepare the report. High speed, heavy tonnage track amounts to approximately 95,000 track miles requiring two inspections per week or 9,880,000 inspection-miles per year. Weekly inspections are required on

100,000 miles for a total of 5,200,000 inspection-miles per year and 25,000 miles require monthly inspection or 300,000 inspection miles per year. Based on the 10 mile per hour inspection rate and the additional time for report preparation, the inspection and reporting burden was calculated at 1,666,166 man-hours. Inspections for internal rail flaws convert to 6,608 equivalent man-hours, while identifying the location of any intervals of track not tested per § 213.237(d) will take approximately 167 hours (2,000 records @ 5 min. each) for a grand total of 1,672,941 burden hours. This includes all of the required inspections and reports required by Section 213.241 of the Track Standards.

Respondent Universe: 728 railroads (all

class I, class II, & class III RRs)

Burden time per response: See above Frequency of Response: Twice

weekly/weekly/monthly

Annual number of Responses: 1,542,089 records (See above)

Annual Burden:

1,672,9 41 hours

<u>Calculation</u>:

above for burden hour calcula tion.

See

Total annual burden for this entire requirement is 1,672,941 hours.

# SUBPART G – TRAIN OPERATIONS AT TRACK CLASSES 6 AND HIGHER

# 213.303 - Responsibility for Compliance

If an owner of track to which this subpart applies assigns responsibility for the track to another person (by lease or otherwise), 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 shall be in writing and

include the following:

- (i) The name and address of the track owner;
- (ii) The name and address of the person to whom responsibility is assigned (assignee);
- (iii) A statement of the exact relationship between the track owner and the assignee;
- (iv) A precise identification of the track;
- (v) A statement as to the competence and ability of the assignee to carry out the duties of the track owner under this subpart;
- (vi) A statement signed by the assignee acknowledging the assignment to that person of responsibility for purposes of compliance with this subpart.

FRA estimates that it will receive approximately one (1) notification annually under the above requirement. It is estimated that it will take approximately eight (8) hours to complete the notification and forward it to FRA. Total annual burden for this requirement is eight (8) hours.

Respondent Universe:

2 railroads (Amtrak & Metro North)

Burden time per response:

8 hours

Frequency of Response:

On occasion

1 notification

Annual Burden:

8 hours

Calculation:

1
notific
ation x
8 hrs.

= 8 hours

## 213.305 Designation of qualified individuals; general qualifications.

- A. Each track owner to which this subpart applies shall designate qualified individuals who shall be responsible for the maintenance and inspection of track in compliance with the safety requirements prescribed in this subpart. Each designated individual, including a contractor or an employee of a contractor who is not a railroad employee, designated to:
  - (a) Supervise restorations and renewals of track shall meet the following minimum requirements: (1) At least: (i) Five years of responsible supervisory experience in railroad track maintenance in track Class 4 or higher and the successful completion of a course offered by the employer or by a college level engineering program, supplemented by special on the job training emphasizing the techniques to be employed in the supervision, restoration, and renewal of high speed track; or (ii) A combination of at least one year of responsible supervisory experience in track maintenance in Class 4 or higher and the successful completion of a minimum of 80 hours of specialized training in the maintenance of high speed track provided by the employer or by a college level engineering program, supplemented by special on the job training provided by the employer with emphasis on the maintenance of high speed track; or (iii) A combination of at least two years of experience in track maintenance in track Class 4 or higher and the successful completion of a minimum of 120 hours of specialized training in the maintenance of high speed track provided by the employer or by a college level engineering program supplemented by special on the job training provided by the employer with emphasis on the maintenance of high speed track.
  - (2) Demonstrate to the track owner that the individual: (i) Knows and understands the requirements of this Subpart that apply to the restoration and renewal of track for which he or she is responsible; (ii) Can detect deviations from those requirements; and (iii) Can prescribe appropriate remedial action to correct or safely compensate for those deviations; and (*Note: Above clarifying language has no paperwork impact.*)
  - (3) Be authorized in writing by the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements of this subpart and successful completion of a recorded examination on this subpart as part of the qualification process.
- B. (b.) <u>Inspect track for defects</u>. Inspect track for defects shall meet the following minimum qualifications: (1) At least: (i) Five years of responsible experience

inspecting track in Class 4 or above and the successful completion of a course offered by the employer or by a college level engineering program, supplemented by special on the job training emphasizing the techniques to be employed in the inspection of high speed track; or (ii) A combination of at least one year of responsible experience in track inspection in Class 4 or above and the successful completion of a minimum of 80 hours of specialized training in the inspection of high speed track provided by the employer or by a college level engineering program, supplemented by special on the job training provided by the employer with emphasis on the inspection of high speed track; or (iii) A combination of at least two years of experience in track maintenance in Class 4 or above and the successful completion of a minimum of 120 hours of specialized training in the inspection of high speed track provided by the employer or from a college level engineering program, supplemented by special on the job training provided by the employer with emphasis on the inspection of high speed track. (Note: Employees performing this job have already qualified or have received training as part of their routine duties. Thus, there is no extra or other burden associated with this requirement.)

- (2) Demonstrate to the track owner that the individual: (i) Knows and understands the requirements of this Subpart that apply to the inspection of the track for which he or she is responsible; (ii) Can detect deviations from those requirements; and (iii) Can prescribe appropriate remedial action to correct or safely compensate for those deviations; and (3) Be authorized in writing by the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements in this subpart and successful completion of a recorded examination on this subpart as part of the qualification process. (*Note: The underlined section above is clarifying language. There is no paperwork impact as it specifies the necessary knowledge.*)
- C. Individuals designated under paragraph (a) or (b) that inspect continuous welded rail track (CWR) or supervise the installation, adjustment, and maintenance of CWR in accordance with the written procedures established by the track owner must have written authorization from the track owner to prescribe remedial actions to correct or safely compensate for deviations from the requirements in those procedures and successful completion of a recorded examination on those procedures as part of the qualification process. The recorded examination might be written, or it might be, for example, a computer file with the results of an interactive training course.

#### Designations (fully qualified)

FRA estimates that approximately 150 individuals will be designated fully qualified under the above requirements. It is estimated that it will take approximately 60 minutes for track owners to so designate each employee or contract worker. Total annual burden

for this requirement is 150 hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

Burden time per response: 60 minutes Frequency of Response: One-time Annual number of Responses: 150 designations

Annual Burden:

150 hours

<u>Calculation</u>: 150

design ations x 60 min. = 150 hours

## Designations (partially qualified)

FRA estimates that approximately 20 individuals will be designated partially qualified under the above requirements. It is estimated that it will take approximately 60 minutes for track owners to so designate each employee or contract worker. Total annual burden for this requirement is 20 hours.

Respondent Universe: 2 railroads (Amtrak & Metro North)

Burden time per response: 60 minutes
Frequency of Response: On occasion
Annual number of Responses: 20 designations

Annual Burden: 20 hours

Calcul ation:

20 design

ations x 60 min. = 20 hours

Total annual burden for this entire requirement is 170 hours (150 + 20).

#### 213.317 - Waivers

Any owner of track to which this subpart applies may petition the Federal Railroad Administrator for a waiver from any or all requirements prescribed in this subpart. Each petition for exemption under this section must be filed in the manner and contain the information required by §§ 211.7 and 211.9 of this chapter.

FRA estimates that it will receive approximately one (1) petition under the above requirement. It is estimated that it will take approximately 80 hours to complete each petition in the prescribed manner and forward it to FRA. Total annual burden for this requirement is 80 hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

Burden time per response: 80 hours Frequency of Response: On occasion

Annual number of Responses: 1 petition

Annual Burden:

80 hours

Calculation:

petitio n x 80 hrs. = 80 hours

1

213.329 Curves, elevation and speed limitations.

A. (d) Each vehicle type must be approved by FRA to operate on track with a qualified cant deficiency, E<sub>u</sub>, greater than 3 inches. Each vehicle type must demonstrate, in a ready-forservice load condition, compliance with the requirements of either paragraph (d)(1) or (d) (2) of this section. (1) When positioned on a track with a uniform superelevation equal to the proposed cant deficiency: (i) No wheel of the vehicle unloads to a value less than 60 percent of its static value on perfectly level track; and (ii) For passenger cars, the roll angle between the floor of the equipment and the horizontal does not exceed 8.6 degrees; or (2) When operating through a constant radius curve at a constant speed corresponding to the proposed cant deficiency, and a test plan is submitted and approved by FRA in accordance with §§ 213.345(e) and (f): (i) The steady-state (average) load on any wheel, throughout the body of the curve, is not less than 60 percent of its static value on perfectly level track; and (ii) For passenger cars, the steady-state (average) lateral acceleration measured on the floor of the car body does not exceed 0.15g.

The burden for test plans is included under that of § 213.345(e) below. Consequently, there is no additional burden associated with this requirement.

В. (e.) The track owner or railroad shall transmit the results of the testing specified in paragraph (d) of this section to FRA's Associate Administrator for Railroad Safety/Chief Safety Officer (FRA) requesting approval for the vehicle type to operate at the desired curving speeds allowed under the formula in paragraph (b) of this section. The request shall be in writing and shall contain, at a minimum, the following information -- (1) A description of the vehicle type involved, including schematic diagrams of the suspension system(s) and the estimated location of the center of gravity above top of rail; (2) The test procedure, including the load condition under which the testing was performed, and description of the instrumentation used to qualify the vehicle, as well as the maximum values for wheel unloading and roll angles or accelerations that were observed during testing; and (3) For vehicle types not subject to Parts 238 or 229 of this Chapter, procedures or standards in effect that relate to the maintenance of all safety-critical components of the suspension system(s) for the particular vehicle type. Safety-critical components of the suspension system are those that impact or have significant influence on the roll of the carbody and the distribution of weights on the wheels. (*Note: The* above is an **amended requirement** for previous § 213.329(d) & (e). The burden below reflects the revised estimate.)

FRA estimates that approximately two (2) documents for vehicle type approval with all the necessary information (including test plans and the results of testing) will be submitted to FRA under the above requirement. It is estimated that it will take the track owner or railroad approximately 80 hours to complete the necessary document and send it to FRA. Total annual burden for this requirement is 160 hours.

Respondent Universe: 728 railroads Burden time per response: 80 hours Frequency of Response: Annual number of Responses: On occasion 2 documents

Annual Burden:

160 hours

**Calculation:** 2 documents x 80 hrs. = 160 hours

C. (f.) In approving the request in paragraph (e) of this section, FRA may impose conditions necessary for safely operating at the higher curving speeds. Upon FRA approval of the request, the track owner or railroad shall notify FRA in writing no less than 30 calendar days prior to the proposed implementation of the approved higher curving speeds allowed under the formula in paragraph (b) of this section. The notification shall contain, at a minimum, identification of the track segment(s) on which the higher curving speeds are to be implemented. [Note: Although the language is different here, the requirement is essentially the same as the pervious § 213.329(e).]

As noted above, there will be two approved requests each year and thus two (2) notifications will be sent to FRA under the above requirement. It is estimated that it will take the track owner or railroad approximately eight (8) hours to complete each notification and it to FRA. Total annual burden for this requirement is 16 hours.

Respondent Universe: 728 railroads

Burden time per response: 8 hours
Frequency of Response: On occasion
Annual number of Responses: 2 notifications

Annual Burden:

16 hours

**Calculation:** 2 notifications x 8 hrs. = 16 hours

- D. (g) The documents required by this section must be provided to FRA by:
  - (1) The track owner; or

(2) A railroad that provides service with the same vehicle type over trackage of one or more track owner(s), with the written consent of each affected track owner.

FRA estimates that approximately two (2) written consents of other track owners will be obtained by track owners/railroads under the above requirement. Because of the extensive communication entailed, it is estimated that it will take approximately eight (8) hours to obtain the written each consent. Total annual burden for this requirement is 16 hours.

Respondent Universe: 728 railroads

Burden time per response: 8 hours
Frequency of Response: On occasion
Annual number of Responses: 2 written consents

Annual Burden:

16 hours

**Calculation:** 2 written consents x 8 hrs. = 16 hours

E. (h) (1) Vehicle types permitted by FRA to operate at cant deficiencies, E<sub>u</sub>, greater than 3 inches but not more than 5 inches shall be considered qualified under this section to operate at those permitted cant deficiencies for any Class 6 track segment. The track owner or railroad shall notify FRA in writing no less than 30 calendar days prior to the proposed implementation of such curving speeds in accordance with paragraph (f) of this section. (New Requirement)

The burden for this requirement is already included under that of section 213.329(f) above. Consequently, there is no additional burden associated with this requirement.

Total annual burden for this entire requirement is 192 hours (160 + 16 + 16).

## 213.333 Automated Vehicle Inspection Systems

#### **Track Geometry Measurement System**

(a) A qualifying Track Geometry Measurement System (TGMS) vehicle shall be operated at the following frequency: (1) For operations at a qualified cant deficiency, E<sub>u</sub>, of more than 5 inches on track Classes 1 through 5, at least twice per calendar year with not less than 120 days between inspections. (2) For track Class 6, at least once per

calendar year with not less than 170 days between inspections. For operations at a qualified cant deficiency, E<sub>u</sub>, of more than 5 inches on track Class 6, at least twice per calendar year with not less than 120 days between inspections. (3) For track Class 7, at least twice within any 120-day period with not less than 25 days between inspections. (4) For track Classes 8 and 9, at least twice within any 60-day period with not less than 12 days between inspections.

(b) A qualifying TGMS shall meet or exceed minimum design requirements specifying that -- (1) Track geometry measurements shall be taken no more than 3 feet away from the contact point of wheels carrying a vertical load of no less than 10 kips per wheel, unless approved by FRA; (2) Track geometry measurements shall be taken and recorded on a distance-based sampling interval not exceeding 1 foot not exceeding 2 feet; and (3) Calibration procedures and parameters are assigned to the system which assure that measured and recorded values accurately represent track conditions. Track geometry measurements recorded by the system shall not differ on repeated runs at the same site at the same speed more than 1/8 inch. (New requirement)

FRA estimates that it will receive approximately one (1) request each year from railroads concerning track geometry measurements taken from a distance different from that specified under (b)(1) above. It is estimated that each notification will take approximately eight (8) hours to complete each request. Total annual burden for this requirement is eight (8) hours.

Respondent Universe: 728 railroads

Burden time per response: 8 hours
Frequency of Response: On occasion

Annual number of Responses: 1 request

Annual Burden:

8 hours

**Calculation:** 1 requests x 8 hrs. = 8 hours

(c) A qualifying TGMS shall be capable of measuring and processing the necessary track geometry parameters to determine compliance with -- (1) For operations at a qualified cant deficiency, E<sub>u</sub>, of more than 5 inches on track Classes 1 through 5: § 213.53, Track gage; § 213.55(b), Track alinement; § 213.57, Curves; elevation and speed limitations; § 213.63, Track surface; and § 213.65, Combined alinement and surface deviations. (2) For track Classes 6 through 9: § 213.323, Track gage; § 213.327, Track alinement; § 213.329, Curves; elevation and speed limitations; § 213.331, Track surface; and for

operations at a cant deficiency of more than 5 inches § 213.332, Combined alinement and surface deviations.

- (d) A qualifying TGMS shall be capable of producing, within 24 hours of the inspection, output reports that --
- (1) Provide a continuous plot, on a constant-distance axis, of all measured track geometry parameters required in paragraph (c) of this section;
- (2) Provide an exception report containing a systematic listing of all track geometry conditions which constitute an exception to the class of track over the segment surveyed.
- (e) The output reports required under paragraph (c) of this section shall contain sufficient location identification information which enable field forces to easily locate indicated exceptions.
- (f) Following a track inspection performed by a qualifying TGMS, the track owner shall, within two days after the inspection, field verify and institute remedial action for all exceptions to the class of track.
- (g) The track owner or railroad shall maintain, for a period of one year following an inspection performed by a qualifying TGMS, a copy of the plot and the exception report for the track segment involved, and additional records which: (1) Specify the date the inspection was made and the track segment involved; and (2) Specify the location, remedial action taken, and the date thereof, for all listed exceptions to the class.

FRA estimates that it will receive approximately three (3) reports under the above requirements. It is estimated that it will take approximately 40 hours to complete each required report. Total annual burden for this requirement is 120 hours.

Respondent Universe: 10 railroads

Burden time per response: 40 hours Frequency of Response: On occasion

Annual number of Responses: 3 reports

Annual Burden:

120 hours

**Calculation:** 3 reports x 40 hrs. = 120 hours

(h) For track Classes 8 and 9, a qualifying Gage Restraint Measuring System (GRMS) shall be operated at least once per calendar year with at least 170 days between inspections. The lateral capacity of the track structure shall not permit a Gage Widening Projection (GWP) greater than 0.5 inch.

FRA estimates that approximately 20 exception printouts/records will be kept by railroads (track owners) under the above requirement. It is estimated that it will take approximately 40 hours to produce each printout/record. Total annual burden for this requirement is 800 hours.

Respondent Universe: 10 railroads

Burden time per response: 40 hours Frequency of Response: On occasion Annual number of Responses: 20 printouts/records

Annual Burden:

800 hours

<u>Calculation</u>: 20

printou ts/recor ds x 40 hrs. = 800 hours

- (j) As further specified for the combination of track class, cant deficiencies, and vehicles subject to paragraphs (j)(1) through (j)(3) of this section, a vehicle having dynamic response characteristics that are representative of other vehicles assigned to the service shall be operated over the route at the revenue speed profile. The vehicle shall either be instrumented or equipped with a portable device that monitors onboard instrumentation on trains. Track personnel shall be notified when onboard accelerometers indicate a possible track-related problem. Testing shall be conducted at the frequencies specified in paragraphs (j)(1) through (j)(3) of this section, unless otherwise determined by FRA after reviewing the test data required by this Subpart.
- (1) For operations at a qualified cant deficiency,  $E_{\rm u}$ , of more than 5 inches on track Classes 1 through 6, carbody acceleration shall be monitored at least once each calendar

quarter with not less than 25 days between inspections on at least one passenger car of each type that is assigned to the service; and

- (2) For operations at track Class 7 speeds, carbody and truck accelerations shall be monitored at least twice within any 60-day period with not less than 12 days between inspections on at least one passenger car of each type that is assigned to the service; and
- (3) For operations at track Classes 8 and 9 speeds, carbody acceleration shall be monitored at least four times within any 7-day period with not more than 3 days between inspections on at least one non-passenger and one passenger carrying vehicle of each type that is assigned to the service, as appropriate. Truck acceleration shall be monitored at least twice within any 60-day period with not less than 12 days between inspections on at least one passenger carrying vehicle of each type that is assigned to the service, as appropriate. (New Requirement)

FRA estimates that approximately 10 notifications to track personnel will be made when onboard accelerometers indicate a possible track-related problem. Because of the testing involved, it is estimated that each notification will take approximately 40 hours to complete. Total annual burden for this requirement is 400 hours.

Respondent Universe: 10 railroads

Burden time per response: 40 hours Frequency of Response: On occasion Annual number of Responses: 10 notifications

Annual Burden:

400 hours

10 notific

<u>Calculation</u>:

ations x 40 hrs. = 400 hours

(k)(1) The instrumented vehicle or the portable device, as required in paragraph (j) of this section, shall monitor vertical and lateral accelerations of the carbody. The

accelerometers shall be attached to the car body on or under the floor of the vehicle, as

near the center of a truck as practicable. (2) In addition, a device for measuring lateral accelerations shall be mounted on a truck frame at a longitudinal location as close as practicable to an axle's centerline (either outside axle for trucks containing more than 2 axles), or, if approved by FRA, at an alternate location. After monitoring this data for 2 years, or 1 million miles, whichever occurs first, the track owner or railroad may petition FRA for exemption from this requirement. (3) If any of the car body lateral, car body vertical, or truck frame lateral acceleration safety limits is exceeded, corrective action shall be taken as necessary. Track personnel shall be notified when the accelerometers indicate a possible track-related problem. (New Requirement)

FRA estimates that approximately 10 requests for an alternate location of devices for measuring lateral accelerations mounted on a truck frame will be made to FRA and approved under the above requirement. It is estimated that each request will take approximately 40 hours to complete and send to FRA. Total annual burden for this requirement is 400 hours.

Respondent Universe: 10 railroads

Burden time per response: 40 hours Frequency of Response: On occasion

Annual number of Responses: 10 requests for an alternative

location

Annual Burden:

400 hours

10

request s for

<u>Calculation</u>:

alt.
locatio
ns x 40
hrs. =
400
hours

Additionally, FRA estimates that approximately 10 notifications to track personnel will be made when onboard accelerometers indicate a possible track-related problem. Because of the testing involved, it is estimated that each notification will take approximately 40 hours to complete. Total annual burden for this requirement is 400 hours.

Respondent Universe: 10 railroads

Burden time per response: 40 hours
Frequency of Response: On occasion
Annual number of Responses: 10 notifications

Annual Burden:

400 hours

10

<u>Calculation</u>:

notific ations x 40 hrs. = 400 hours

(l) For track Classes 8 and 9, the track owner or railroad shall submit a report to FRA, once each calendar year, which provides an analysis of the monitoring data collected in accordance with paragraphs (j) and (k) of this section. Based on a review of the report, FRA may require that an instrumented vehicle having dynamic response characteristics that are representative of other vehicles assigned to the service be operated over the track at the revenue speed profile. The instrumented vehicle shall be equipped to measure wheel/rail forces. If any of the wheel/rail force limits in this section's table of vehicle/track interaction safety limits is exceeded, appropriate speed restrictions shall be applied until corrective action is taken. (New Requirement)

FRA estimates that there will be approximately four (4) reports per year will be submitted for FRA under the above requirement. It is estimated that it will take approximately eight (8) hours to complete each report, which provides an analysis of the monitoring data collected in accordance with paragraphs (j) and (k) of this section, and then send it to FRA. Total annual burden for this requirement is 32 hours.

Respondent Universe: 10 railroads

Burden time per response: 8 hours Frequency of Response: Annually

Annual number of Responses: 4 monitoring data reports

Annual Burden:

### **Calculation:** 4 monitoring data reports x 8 hrs. = 32 hours

(m) The track owner or railroad shall maintain a copy of the most recent exception printouts for the inspections required under paragraphs (j), (k), and (l) of this section, as appropriate.

The burden for this requirement is included above as part of the data monitoring reports. Consequently, there is no additional or other burden associated with this requirement.

Total annual burden for this entire requirement is 2,160 hours (8 + 120 + 800 + 400 + 400 + 400 + 32).

## 213.339 Inspection of rail in service.

A continuous search for internal defects must be made of all rail in track at least twice annually with not less than 120 days between inspections. Each defective rail must be marked with a highly visible marking on both sides of the web and base.

Currently, this is a usual and customary procedure practiced by all railroads and will not, therefore, impose any additional paperwork burden on them.

#### 213.341 Initial inspection of new rail and welds.

The track owner shall provide for the initial inspection of newly manufactured rail, and for initial inspection of new welds made in either new or used rail. A track owner may demonstrate compliance with this section by providing for:

A. Mill inspection. A continuous inspection at the rail manufacturer's mill shall constitute compliance with the requirement for initial inspection of new rail, provided that the inspection equipment meets the applicable requirements specified in § 213.339. The track owner shall obtain a copy of the manufacturer's report of inspection and retain it as a record until the rail receives its first scheduled inspection under § 213.339.

FRA estimates that approximately two (2) reports will be retained by track owners under the above requirement. It is estimated that it will take approximately 16 hours to produce each report. Total annual burden for this requirement is 32 hours. Respondent Universe: 2 railroads (Amtrak &

Metro North)
Burden time per response: 16 hours
Frequency of Response: On occasion

Annual number of Responses: 2 reports

Annual Burden:

32 hours

<u>Calculation</u>: 2

reports x 16 hrs. = 32 hours

B. Welding plant inspection. A continuous inspection at a welding plant, if conducted in accordance with the provisions of paragraph (b) of this section, and accompanied by a plant operator's report of inspection which is retained as a record by the track owner, shall constitute compliance with the requirements for initial inspection of new rail and plant welds, or of new plant welds made in used rail.

FRA estimates that approximately two (2) reports will be retained by track owners under the above requirement. It is estimated that it will take approximately 16 hours to produce each report. Total annual burden for this requirement is 32 hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

Burden time per response: 16 hours Frequency of Response: On occasion

Annual number of Responses: 2 reports

Annual Burden:

32 hours 

 Calculation:
 2

 reports
 x 16

 hrs. =
 32

 hours
 32

C. Inspection of field welds. Initial inspection of field welds, either those joining the ends of CWR strings or those made for isolated repairs, shall be conducted not less than one day and not more than 30 days after the welds have been made. The initial inspection may be conducted by means of portable test equipment. The track owner shall retain a record of such inspections until the welds receive their first scheduled inspection under § 213.339.

FRA estimates that approximately 125 records will be retained by track owners under the above requirement. It is estimated that it will take approximately 20 minutes to make each record. Total annual burden for this requirement is 42 hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

Burden time per response: 20 minutes Frequency of Response: On occasion

Annual number of Responses: 125 records

Annual Burden:

42 hours

Calculation: 125 records x 20

min. = 42 hours D. Each defective rail found during inspections conducted under paragraph (a) or (d) of this section must be marked with highly visible markings on both sides of the web and base, and the remedial action as appropriate under § 213.337 will apply.

Currently, this is a usual and customary procedure practiced by all railroads and will not, therefore, impose any additional paperwork burden on them.

Total annual burden for this entire requirement is 106 hours (32 + 32 + 42).

## 213.343 Continuous welded rail (CWR).

A. Each track owner with track constructed of CWR shall have in effect written procedures which address the installation, adjustment, maintenance and inspection of CWR, and a training program for the application of those procedures, which shall be submitted to the Federal Railroad Administration (FRA) within six months following the effective date of this rule.

This is a one-time requirement which has already been fulfilled. Consequently, there is no additional burden associated with this requirement.

B. The track owner shall have in effect a comprehensive training program for the application of these written CWR procedures, with provisions for periodic retraining, for those individuals designated under §213.305(c) of this part as qualified to supervise the installation, adjustment, and maintenance of CWR track and to perform inspections of CWR track.

This is a one-time requirement which has already been fulfilled. Consequently, there is no additional burden associated with this requirement.

- C. The track owner shall prescribe recordkeeping requirements necessary to provide an adequate history of track constructed with CWR. At a minimum, these records must include:
  - (1) Rail temperature, location and date of CWR installations. This record shall be retained for at least one year; and
  - (2) A record of any CWR installation or maintenance work that does not conform with the written procedures. Such record must include the location of the rail and be maintained until the CWR is brought into conformance with such procedures.

FRA estimates that approximately 150 records will be kept by track owners under the above requirement. It is estimated that it will take approximately 10 minutes to make

each record. Total annual burden for this requirement is 25 hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

Burden time per response: 10 minutes Frequency of Response: On occasion

Annual number of Responses: 150 records

Annual Burden:

25 hours

**Calculation:** 150

records x 10 min. = 25 hours

D. Track owners shall revise their CWR plans to include provisions for the inspection of joint bars in accordance with §§ 213.119(g) and 213.119 (i)(3).

The burden for this requirement is already covered under those of § 213.119(g) and § 213.119(i)(3), respectively. Consequently, there is no additional burden associated with this requirement.

Total annual burden for this entire requirement is 25 hours.

## 213.345 Vehicle qualification testing.

(a) <u>General</u>. All vehicle types intended to operate at track Class 6 speeds or above, or at any curving speed producing more than 5 inches of cant deficiency, shall be qualified for operation for their intended track classes in accordance with this Subpart. A qualification program shall be used to ensure that the vehicle/track system will not exceed the wheel/rail force safety limits and the carbody and truck acceleration criteria specified in § 213.333 -- (1) At any speed up to and including 5 mph above the proposed maximum operating speed; and (2) On track meeting the requirements for the class of track associated with the proposed maximum operating speed. For purposes of qualification testing, speeds may exceed the maximum allowable speed for the class of track in

accordance with the test plan approved by FRA. **(New/Expanded Requirement)** [*Note: The burden for test plans/programs is included under section 213.329 above.*]

FRA estimates that approximately 10 qualification programs will be developed under the above requirement. It is estimated that it will take approximately 120 hours to develop each qualification program and submit it to FRA. Total annual burden for this requirement is 1,200 hours.

Respondent Universe: 10 railroads

Burden time per response: 120 hours
Frequency of Response: On occasion
Annual number of Responses: 10 qualification programs

Annual Burden:

1,200 hours

**<u>Calculation</u>**: 10 qualification programs x 120 hrs. = 1,200 hours

- (b) Existing vehicle type qualification. Vehicle types previously qualified or permitted to operate at track Class 6 speeds or above or at any curving speeds producing more than 5 inches of cant deficiency prior to [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], shall be considered as being successfully qualified under the requirements of this section for operation at the previously operated speeds and cant deficiencies over the previously operated track segment(s).
- (c) <u>New vehicle type qualification</u>. Vehicle types not previously qualified under this Subpart shall be qualified in accordance with the requirement of this paragraph (c).
- (1) <u>Simulations or measurement of wheel/rail forces</u>. For vehicle types intended to operate at track Class 6 speeds, simulations or measurement of wheel/rail forces during qualification testing shall demonstrate that the vehicle type will not exceed the wheel/rail force safety limits specified in § 213.333. Simulations, if conducted, shall be in accordance with paragraph (c)(2) of this section. Measurement of wheel/rail forces, if conducted, shall be performed over a representative segment of the full route on which the vehicle type is intended to operate.
- (2) <u>Simulations</u>. For vehicle types intended to operate at track Class 7 speeds or above, or at any curving speed producing more than 6 inches of cant deficiency, analysis of vehicle/track performance (computer simulations) shall be conducted using an industry

recognized methodology on: (i) An analytically defined track segment representative of minimally compliant track conditions (MCAT—Minimally Compliant Analytical Track) for the respective track class(es) as specified in Appendix D to this Part; and (ii) A track segment representative of the full route on which the vehicle type is intended to operate. Both simulations and physical examinations of the route's track geometry shall be used to determine a track segment representative of the route.

- (3) <u>Carbody acceleration</u>. For vehicle types intended to operate at track Class 6 speeds or above, or at any curving speed producing more than 5 inches of cant deficiency, qualification testing conducted over a representative segment of the route shall ensure that the vehicle type will not exceed the carbody lateral and vertical acceleration safety limits specified in § 213.333.
- (4) <u>Truck lateral acceleration</u>. For vehicle types intended to operate at track Class 6 speeds or above, qualification testing conducted over a representative segment of the route shall ensure that the vehicle type will not exceed the truck lateral acceleration safety limit specified in § 213.333.
- (5) <u>Measurement of wheel/rail forces</u>. For vehicle types intended to operate at track Class 7 speeds or above, or at any curving speed producing more than 6 inches of cant deficiency, qualification testing conducted over a representative segment of the route shall ensure that the vehicle type will not exceed the wheel/rail force safety limits specified in § 213.333.

The burden for the analysis and testing of this requirement is included under that of the qualification programs in 213.345(a) above. Consequently, there is no additional or other burden associated with this requirement.

- (d) <u>Previously qualified vehicle types</u>. Vehicle types previously qualified under this Subpart for a track class and cant deficiency on one route may be qualified for operation at the same class and cant deficiency on another route through analysis or testing, or both, to demonstrate compliance with paragraph (a) of this section in accordance with the following: (**New Requirement**)
- (1) <u>Simulations or measurement of wheel/rail forces</u>. For vehicle types intended to operate at any curving speed producing more than 6 inches of cant deficiency, or at curving speeds that both correspond to track Class 7 speeds or above and produce more than 5 inches of cant deficiency, simulations or measurement of wheel/rail forces during qualification testing shall demonstrate that the vehicle type will not exceed the wheel/rail force safety limits specified in § 213.333. Simulations, if conducted, shall be in accordance with paragraph (c)(2) of this section. Measurement of wheel/rail forces, if conducted, shall be performed over a representative segment of the new route.

- (2) <u>Carbody acceleration</u>. For vehicle types intended to operate at any curving speed producing more than 5 inches of cant deficiency, or at track Class 7 speeds and above, qualification testing conducted over a representative segment of the new route shall ensure that the vehicle type will not exceed the carbody lateral and vertical acceleration safety limits specified in § 213.333.
- (3) <u>Truck lateral acceleration</u>. For vehicle types intended to operate at track Class 7 speeds or above, measurement of truck lateral acceleration during qualification testing shall demonstrate that the vehicle type will not exceed the truck lateral acceleration safety limits specified in § 213.333. Measurement of truck lateral acceleration, if conducted, shall be performed over a representative segment of the new route.

FRA estimates that approximately 10 qualification programs will be developed (including analyses and tests) under the above requirement. It is estimated that it will take approximately 80 hours to develop each qualification program and submit it to FRA. Total annual burden for this requirement is 800 hours.

Respondent Universe: 10 railroads

Burden time per response: 80 hours
Frequency of Response: On occasion
Annual number of Responses: 10 qualification programs

Annual Burden:

800 hours

<u>Calculation</u>: 10 qualification programs x 80 hrs. = 800 hours

(e) Qualification test plan. To obtain the data required to support the qualification program outlined in paragraphs (c) and (d) of this section, the track owner or railroad shall submit a qualification testing plan to FRA's Associate Administrator for Railroad Safety/Chief Safety Officer (FRA) at least 60 days prior to testing, requesting approval to conduct the testing at the desired speeds and cant deficiencies. This test plan shall provide for a test program sufficient to evaluate the operating limits of the track and vehicle type and shall include: (1) Identification of the representative segment of the route for qualification testing; (2) Consideration of the operating environment during qualification testing, including operating practices and conditions, the signal system, highway-rail grade crossings, and trains on adjacent tracks; (3) The maximum angle found on the gage face of the designed (newly-profiled) wheel flange referenced with

respect to the axis of the wheel set that will be used for the determination of the Single Wheel L/V Ratio safety limit specified in § 213.333; (4) A target maximum testing speed in accordance with paragraph (a) of this section and the maximum testing cant deficiency; (5) An analysis and description of the signal system and operating practices to govern operations in track Classes 7 through 9, which shall include a statement of sufficiency in these areas for the class of operation; and (6) The results of vehicle/track performance simulations that are required by this section. (New Requirement)

The burden for this requirement is included under that of 213.345(a) above. Consequently, there is no additional or other burden associated with this requirement.

- (f) <u>Qualification testing</u>. Upon FRA approval of the qualification testing plan, qualification testing shall be conducted in two sequential stages as required in this Subpart.
- (1) Stage-one testing shall include demonstration of acceptable vehicle dynamic response of the subject vehicle as speeds are incrementally increased -- (i) On a segment of tangent track, from acceptable track Class 5 speeds to the target maximum test speed (when the target speed corresponds to track Class 6 and above operations); and (ii) On a segment of curved track, from the speeds corresponding to 3 inches of cant deficiency to the maximum testing cant deficiency.
- (2) When stage-one testing has successfully demonstrated a maximum safe operating speed and cant deficiency, stage-two testing shall commence with the subject equipment over a representative segment of the route as identified in paragraph (e)(1) of this section.
- (i) A test run shall be conducted over the route segment at the speed the railroad will request FRA to approve for such service.
- (ii) An additional test run shall be conducted at 5 m.p.h. above this speed.
- (3) When conducting stage-one and stage-two testing, if any of the monitored safety limits are exceeded, on any segment of track intended for operation at track Class 6 speeds or greater, or on any segment of track intended for operation at more than 5 inches of cant deficiency, testing may continue provided the track location(s) where any of the limits are exceeded is identified and test speeds are limited at the track location(s) until corrective action is taken. Corrective action may include making an adjustment in the track, in the vehicle, or both of these system components. Measurements taken on track segments intended for operations below track Class 6 speeds and at 5 inches of cant deficiency or less are not required to be reported. (New Requirement)
- (4) Prior to the start of the qualification test program, a qualifying Track Geometry Measuring System (TGMS) specified in § 213.333 shall be operated over the intended route within 30 calendar days prior to the start of the qualification test program.

The burden for this requirement is included under that of 213.345(a) and (d) above. Consequently, there is no additional or other burden associated with this requirement.

(g) <u>Qualification testing results</u>. The track owner or railroad shall submit a report to FRA detailing all the results of the qualification program. When simulations are required as part of vehicle qualification, this report shall include a comparison of simulation predictions to the actual wheel/rail force or acceleration data, or both, recorded during full-scale testing. The report shall be submitted at least 60 days prior to the intended operation of the equipment in revenue service over the route

The burden for this requirement is included under that of 213.345(a) and (d) above. Consequently, there is no additional or other burden associated with this requirement.

- (h) Based on the test results and all other required submissions, FRA will approve a maximum train speed and value of cant deficiency for revenue service, normally within 45 days of receipt of all the required information. FRA may impose conditions necessary for safely operating at the maximum approved train speed and cant deficiency.
- (i) The documents required by this section must be provided to FRA by:
- (1) The track owner; or
- (2) A railroad that provides service with the same vehicle type over trackage of one or more track owner(s), with the written consent of each affected track owner. (**New Requirement**)

FRA estimates that approximately one (1) written track owner consent will be obtained by railroads under the above requirement. It is estimated that it will take approximately eight (8) hours to obtain the written each consent. Total annual burden for this requirement is eight (8) hours.

Respondent Universe: 728 railroads

Burden time per response: 8 hours
Frequency of Response: On occasion
Annual number of Responses: 1 written consent

Annual Burden:

8 hours

**Calculation:** 1written consents x 8 hrs. = 8 hours

Total annual burden for this entire requirement is 2,008 hours (1,200 + 800 + 8).

## § 213.347 Automotive or Railroad Crossings at grade

If a train operation is projected at class 7 speed for a track segment that will include highway-rail grade crossings, the track owner must submit for FRA's approval a complete description of the proposed warning/barrier system to address the protection of highway traffic and high speed trains.

Respondent universe is one railroad (Amtrak). FRA estimates two (2) crossing protection plans will be submitted under the above requirement. It is estimated that each submission will take approximately eight (8) hours to complete. Total annual burden for this requirement is 16 hours.

Respondent Universe: 1 railroad (Amtrak)
Burden time per response: 8 hours
Frequency of Response: One-time

One-time Responses: 2 protection plans

One-time Burden: 16

hours

**Calculation:** 2 plans x 8 hrs. = 16 hours

#### 213.353 Turnouts and crossovers, generally.

For all turnouts and crossovers, and lift assemblies or other transition devices on moveable bridges, the track owner must prepare an inspection and maintenance Guidebook for use by railroad employees which shall be submitted to the Federal Railroad Administration. The Guidebook must contain at a minimum:

- (1) Inspection frequency and methodology including limiting measurement values for all components subject to wear or requiring adjustment.
- (2) Maintenance techniques.

Respondent universe is one (1) railroad (Amtrak). Since this requirement has already been fulfilled, there is no additional burden associated with it.

#### 213.361 Right of Way

The track owner in Class 8 and 9 shall submit a barrier plan, termed a "right-of-way plan", to the Federal Railroad Administration (FRA) for approval. At a minimum, the plan will contain provisions in areas of demonstrated need for the prevention of —

- (1) Vandalism;
- (2) Launching of objects from overhead bridges or structures into the path of trains;
- (3) Intrusion of vehicles from adjacent rights of way.

Respondent universe is one (1) railroad (Amtrak). Since this requirement has already been fulfilled, there is no additional burden associated with it.

## 213.365 Visual Inspections

- (a.) All track shall be visually inspected in accordance with the schedule prescribed in paragraph (c) of this section by a person designated under Sec. 213.305.
- (b) Each inspection shall be made on foot or by riding over the track in a vehicle at a speed that allows the person making the inspection to visually inspect the track structure for compliance with this part. However, mechanical, electrical, and other track inspection devices may be used to supplement visual inspection. If a vehicle is used for visual inspection, the speed of the vehicle may not be more than 5 miles per hour when passing over track crossings and turnouts, otherwise, the inspection vehicle speed shall be at the sole discretion of the inspector, based on track conditions and inspection requirements. When riding over the track in a vehicle, the inspection will be subject to the following conditions -- (1) One inspector in a vehicle may inspect up to two tracks at one time provided that the inspector's visibility remains unobstructed by any cause and that the second track is not centered more than 30 feet from the track upon which the inspector is riding; (2) Two inspectors in one vehicle may inspect up to four tracks at a time provided that the inspector's visibility remains unobstructed by any cause and that each track being inspected is centered within 39 feet from the track upon which the inspectors are riding; (3) Each main track is actually traversed by the vehicle or inspected on foot at least once every two weeks, and each siding is actually traversed by the vehicle or inspected on foot at least once every month. On high density commuter railroad lines where track time does not permit an on track vehicle inspection, and where track centers are 15 foot or less, the requirements of this paragraph (b)(3) will not apply; and (4) Track inspection records shall indicate which track(s) are traversed by the vehicle or inspected on foot as outlined in paragraph (b)(3) of this section.

(c) Each track inspection :	shall be made in accordance with the following schedule
Class of track	Required frequency

6, 7, and 8	Twice weekly with at least 2
	calendar-day's interval
	between inspections.
9	Three times per week.

- (d) If the person making the inspection finds a deviation from the requirements of this part, the person shall immediately initiate remedial action.
- (e) Each switch, turnout, track crossing, and lift rail assemblies on moveable bridges shall be inspected on foot at least weekly. The inspection shall be accomplished in accordance with the Guidebook required under Sec. 213.353.
- (f) In track Classes 8 and 9, if no train traffic operates for a period of eight hours, a train shall be operated at a speed not to exceed 100 miles per hour over the track before the resumption of operations at the maximum authorized speed.

The burden for this requirement is included under that of 213,369 below. Consequently, there is no additional burden associated with this requirement.

## 213.369 Inspection records.

(A) Each owner of track to which this part applies shall keep a record of each inspection required to be performed on that track under this subpart. Except as provided in paragraph (e) of this section, each record of an inspection under § 213.365 shall be prepared on the day the inspection is made and signed by the person making the inspection. Records must specify the track inspected, date of inspection, location and nature of any deviation from the requirements of this part, and the remedial action taken by the person making the inspection.

FRA estimates that approximately 500 records will be kept by track owners under the above requirement. It is estimated that it will take approximately one (1) minute to record the required information. Total annual burden for this requirement is eight (8) hours.

> Respondent Universe: 2 railroads (Amtrak &

Metro North) Burden time per response: 1 minute Frequency of Response: On occasion

Annual number of Responses: 500 records

Annual Burden:

8 hours

**Calculation**:

500 records x 1 min. = 8 hours

(B) The owner shall designate the location(s) where each original record shall be maintained for at least one year after the inspection covered by the record. The owner shall also designate one location, within 100 miles of each state in which they conduct operations, where copies of records which apply to those operations are either maintained or can be viewed following 10 days notice by the Federal Railroad Administration.

Respondent universe is two (2) railroads (Amtrak and Metro North). Since this requirement has already been fulfilled, there is no additional burden associated with it.

(C) Rail inspection records must specify the date of inspection, the location and nature of any internal defects found, the remedial action taken and the date thereof, and the location of any intervals of track not tested per § 213.339(d). The owner shall retain a rail inspection record for at least two years after the inspection and for one year after remedial action is taken.

FRA estimates that approximately 50 records will be retained by track owners under the above requirement. It is estimated that it will take approximately five (5) minutes to record the required information. Total annual burden for this requirement is four (4) hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)
Burden time per response: 5 minutes
Frequency of Response: On occasion

Annual number of Responses: 50 records

Annual Burden:

4 hours

**Calculation:** 50 records

x 5 min. = 4 hours

Total annual burden for this requirement is 12 hours (8 + 4).

# Appendix D to Part 213—Minimally Compliant Analytical Track (MCAT) Simulations Used for Qualifying Vehicles to Operate at High Speeds and at High Cant Deficiencies.

(a) <u>Validation</u>. To validate the vehicle model used for MCAT simulations under this Part, the track owner or railroad shall obtain vehicle simulation predictions using measured track geometry data, chosen from the same track section over which testing is to be performed as determined by § 213.345(c)(2)(ii). These predictions shall be submitted to FRA in support of the request for approval of the qualification test plan. Full validation of the vehicle model used for MCAT simulations under this Part shall be determined when the results of the simulations demonstrate that they replicate all key responses observed during qualification testing.

The burden for this requirement is included under that of the qualification test plans above. Consequently, there is no other or additional burden associated with this requirement.

## Subpart E to Part 238—Specific Requirements for Tier II Passenger Equipment

## 238.427 Suspension System

- (a) General requirements. (1) Suspension systems shall be designed to reasonably prevent wheel climb, wheel unloading, rail rollover, rail shift, and a vehicle from overturning to ensure safe, stable performance and ride quality. These requirements shall be met:
- (i) In all operating environments, and under all track conditions and loading conditions as determined by the operating railroad; and

- (ii) At all track speeds and over all track qualities consistent with the Track Safety Standards in Part 213 of this chapter, up to the maximum operating speed and maximum cant deficiency of the equipment.
- (2) All passenger equipment shall meet the safety performance standards for suspension systems contained in Part 213 of this chapter, or alternative standards providing at least equivalent safety if approved by FRA under the provisions of § 238.21. In particular --
- (i) <u>Pre-revenue service qualification</u>. All passenger equipment shall demonstrate safe operation during pre-revenue service qualification in accordance with § 213.345 of this chapter and is subject to the requirements of § 213.329 of this chapter.
- (ii) Revenue service operation. All passenger equipment in service is subject to the requirements of §§ 213.329 and 213.333 of this chapter.

The burden for this requirement is included under OMB No. 2130-0544. Consequently, there is no other or additional burden associated with this requirement.

Total annual burden for this entire information collection is 3,761,468 hours.

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

As noted in the regulatory impact analysis (RIA) accompanying this final rule, railroads use automated track geometry measuring systems to determine whether track geometry complies with track safety standards. The final rule adds new standards and dimensions that must be programmed into automated track geometry measuring software before the railroads can operate under the final rule. FRA is contracting to modify the software on FRA's inspection cars to record instances where deviations exceed the maximum allowed under the final rule. The contractor has estimated that providing and system testing the software modifications will require roughly \$73,000. Four other entities provide automated track inspection services to railroads, and may need to update their inspection vehicles' software to accommodate the new requirements of the final rule. FRA believes that the \$73,000 figure provided by FRA's contractor may be higher than the cost to an entity providing services over a more limited set of tracks, or for other reasons, but that the higher number is a ceiling on likely costs, and is conservative. Thus, FRA estimates that it will cost 4 times \$73,000, or \$292,000 for a one-time expense of updating track inspection software. The programming modifications must occur before the railroads operate under the final rule.

## TOTAL (One-time) CAPTIAL/START-UP COSTS = \$292,000

## 14. <u>Estimate of Cost to Federal Government.</u>

The estimated costs to the Federal Government for the new requirements associated with

the Vehicle/Track Interaction Safety Standards Final Rule are as follows (based on FY 2010 Federal Government Pay Schedule plus 75% overhead):

- 1. \$472 Section 213.333(a) & (b) Four (4) hours for FRA Track Staff Director (GS-15-5) to review request from railroads concerning track geometry measurements taken from a distance different from that specified under section 213.333(b)(1).
- 2. \$5,152 Section 213.333 (k)(1) 16 hours each for FRA Track Staff Director (GS-15-5) and two staff members (GS-14-5) to review requests for alternate location of devices for measuring lateral accelerations mounted on a truck frame.
- 3. \$16,960 Section 213.333(l) 40 hours each for FRA Track Staff Director (GS-15-5) and three staff members (GS-14-5) to review reports submitted to FRA of monitoring data collected in accordance with sections 2132.333 (j) and (k).
- 4. \$16,960 Section 213.345(a) 40 hours each for FRA Track Staff Director (GS-15-5) and three staff members (GS-14-5) to review railroad vehicle type qualification programs developed to ensure that vehicle/track system will not exceed the wheel/rail force safety limits and the carbody and truck acceleration criteria specified in section 213.333(a)(1) and 21.333(a)(2).
- 5. \$16,960 Section 213.345(a) 40 hours each for FRA Track Staff Director (GS-15-5) and three staff members (GS-14-5) to review railroad vehicle type qualification programs (that include analyses and tests) for operation at the same class and cant deficiency on another route.
- 6. \$816 Section 213.333(h) Eight (8) hours for FRA Track staff member (GS-14-5) to review written consent of track owner submitted by railroad that provides service with the same vehicle type over trackage of one or more track owner(s).

## <u>TOTAL Vehicle/Track Interaction Costs</u> = \$57,320

FRA's cost for CWR requirements (based on FY 2010 Federal Government Pay Schedule plus 75% overhead):

- 7. \$50,505 546 hours for FRA staff to review 728 revised procedures/plans (which describe the scheduling and conduct of physical track inspections to detect cracks and other incipient failures in CWR). The cost for FRA reviewing staff is equally divided between GS-13s and GS-14s.
- 2. \$38,400 450 hours for FRA staff to review 20 additional revised procedures/plans, 728 written notifications, and 240 amended training programs. The cost for FRA reviewing staff is equally divided between GS-12s, GS-13s, and GS-14s.

3. \$980,000 -14,000 hours for FRA inspectors to review additional CWR joint inspection data in required records. The cost for FRA inspectors is calculated at the GS-12 level.

## <u>TOTAL CWR Costs</u> = **\$1,068,905**

Additionally, FRA's cost for GRMS requirements (based on FY 2005 Federal Government Pay Schedule plus 75% overhead):

- 1. \$8,300 16 hours for 2 GS-14s to review technical data + 30 hours for 2 GS-13s to review notifications.
- 2. \$426 6 hours for one GS-12 to review training programs.

Total GRMS Costs = \$8,726

**GRAND TOTAL COST = \$1,134,951** 

## 15. Explanation of program changes and adjustments.

The total burden for this information collection has <u>increased</u> by 1,803,541 hours from the last approved submission. The increase is the result of both **adjustments** and **program changes**. The following table exhibits the adjustments:

## TABLE FOR ADJUSTMENTS

Part 213	Responses &	Responses &	Burden	Burden	Difference
Section	Avg. Time	Avg. Time	Hours	Hours (This	(plus/minus)
	(Previous	(This	(Previous	Submission)	
	Submission)	Submission)	Submission)		
213.7c –Employee					
CWR Training/	80,000 employees	80,000 employees	120,000 hours	1,920,000 hrs.	+ 1,800,000 hrs.
Demonstration of	90 minutes	24 hours			0 responses
Knowledge of					
CWR Procedures					

213.7(d) –					
Designated	250 names	250 names	42 hours	125 hours	+ 83 hours
Partially Qualified	250 hames	250 hames	42 1100113	125 110013	· os nours
Employees to					
Inspect Track	10 minutes	30 minutes			0 responses
213.17 – Waiver	6 petitions	6 petitions	144 hours	672 hours	+ 528 hours
Petitions	24 hours	112 hours	111 nours	0,2 110415	0 responses
213.57(e) (3)–	2 requests	2 requests/test	80 hours	160 hours	+ 80 hours
Documented	40 hours	plans	oo nours	100 110415	0 responses
Requests to	10 110415	Prairie			o responses
Operate Qualified					
at Equipment at					
Higher Curving					
Speed					
213.57(f) – Notice	0 notifications	2 notifications	0 hours	16 hours	+ 16 hours
of Approved	0 hours	8 hours			+ 2 responses
Higher Curving					
Speeds					
213.57(g) –	0 written consents	2 written consents	0 hours	16 hours	+ 16 hours
Written Consent of	0 hours	8 hours			+ 2 responses
Track Owners	E .:C: .:	2 .: (: .:	0.1	72.1	
213.110A – Notice	5 notifications	2 notifications	8 hours	72 hours	+ 64 hours
to FRA to	1 technical report	1 technical report			3 responses
Implement GRMS	45 minutes 4 hours	24 hours 24 hours			
on Line Segment 213.110B –	50 reports	50 reports	4 hours	50 hours	+ 46 hours
Output Reports	5 minutes	60 minutes	4 110015	JO HOUIS	0 responses
Output Reports	3 minutes	oo minutes			0 responses
213.110C -	50 reports	50 reports	4 hours	50 hours	+ 46 hours
Output Reports	5 minutes	60 minutes			0 responses
					_
213.110E -	2 training program	2 training prog.	112 hours	168 hours	+ 56 hours
GRMS Training	16 hours	24 hours			0 responses
Program + GRMS	5 training sessions	5 training sessions			
Training Sessions	16 hours	24 hours			
213.305 –	150 designations	150 designations	25 hours	150 hours	+ 125 hours
Designations –	10 minutes	60 minutes			0 responses
Fully Qualified					1
213.305 –	20 designations	20 designations	3 hours	20 hours	+ 17 hours
Designations –	10 minutes	60 minutes			0 responses
Partially Qualified	D	2 .: (: .:	120.1	101	1041
213.329 (f)—	3 notifications 40 hours	2 notifications 8 hours	120 hours	16 hours	104 hours
Notification to	40 nours	8 nours			1 response
FRA Prior to Implementation of					
1 -					
Higher Curving Speeds					
213.329 (g)-	0 written consents	2 written consents	0 hours	16 hours	+ 16 hours
Notice/documents	0 hours	8 hours	o nouis	10 1100115	+ 2 responses
to FRA w/written	o nours	o nours			· Z responses
consent of track					
consent of truck	l	l .	l		

owner					
213.333 (d)-	18 printouts/report	3 printouts/reports	360 hours	120 hours	240 hours
TGMS Track 7	20 hours (old	40 hours			15 responses
Output Reports	213.333a)				_
213.333 (h)-	13 printouts/report	20 printouts/rpts.	260 hours	800 hours	+ 540 hours
TGMS Track 7	20 hours	40 hours			+ 7 responses
Output Reports					

**Adjustments** above *increased* the burden by 1,801,289 *hours* and *decreased* responses by six (6) from the last approved submission.

## TABLE FOR PROGRAM CHANGES (New/Amended/Deleted Requirements)

Part 213 Section	Responses & Avg. Time (Previous Submission)	Responses & Avg. Time (This Submission)	Burden Hours (Previous Submission)	Burden Hours (This Submission)	Difference (plus/minus)
213.57B – Written Notification to FRA by track owner who provides passenger service over trackage over more than 1 track w/same class of equipment	2 notifications 45 minutes	No longer required ( <i>old</i> 213.57e)	2 hours	0 hours	2 hours 2 responses
213.329(d)(e) – Submission of Test Plans/Results of Testing to FRA by track owner/RR for Vehicle Type	2 test plans 16 hours (old 213.57(g))	2 documents 80 hours	32 hours	160 hours	+ 128 hours 0 responses
213.329(f) – Notice to FRA by track owner/RR that provides passenger/ commuter service over trackage of more than 1 track owner w/same class of equipment	3 notifications 45 minutes	No longer required ( <i>old</i> 213.329f)	2 hours	0 hours	2 hours 3 responses
213.333(b) – Request to take track geometry measurement less than 3 ft. away	N/A	1 request 8 hours	N/A	8 hours	+ 8 hours + 1 response

from contact point of wheels					
213.333(j) – Notification to track personnel when onboard accelerometers indicate a possible track problem	N/A	10 notifications 40 hours	N/A	400 hours	+ 400 hours + 10 responses
213.333(k)(1) – Request to FRA for alternate location of devices for measuring lateral accelerations	N/A	10 requests 40 hours	N/A	400 hours	+ 400 hours + 10 responses
213.333(k)(1) – Notification to track personnel when onboard accelerometers indicate a possible track problem	N/A	10 notifications 40 hours	N/A	400 hours	+ 400 hours + 10 responses
213.333(l) – Calendar year report to FRA providing analysis of collected monitoring data	N/A	4 reports 8 hours	N/A	32 hours	+ 32 hours + 4 responses
213.345(a) – Qualification program/testing for specified vehicle types	2 reports/testing 560 hours	10 qualification programs/testing 120 hours	1,120 hours	1,200 hours	+ 80 hours + 8 responses
213.345(d) – Qualification program for vehicles previously qualified on 1 route for operation at the same class and cant deficiency for another route	N/A	10 qualification programs 80 hours	N/A	800 hours	+ 800 hours + 10 responses
213.345(h)(2) – Written consent of track owner/RR providing service	N/A	1 written consent 8 hours	N/A	8 hours	+ 8 hours + 1 response

w/same vehicle			
type over trackage			
of 1/more owner			

**Program changes** above *increased* the burden by *2,252 hours* and *increased* responses by *49* from the last approved submission.

The current OMB inventory shows a total burden of 1,957,927 hours, while the present submission exhibits a total burden of 3,761,468 hours. Hence, there is a total <u>increase</u> of 1,803,541 hours.

There is a change/increase in cost to respondents of \$292,000 from the last submission for upgrading track inspection vehicle software. This is a **program change**.

## 16. <u>Publication of results of data collection</u>.

There will be no publications involving these information collection requirements.

## 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 <u>Federal Register</u>.

## 18. Exception to certification statement.

No exceptions are taken at this time.

## Meeting Department of Transportation (DOT) Strategic Goals

This information collection supports the top DOT strategic goal, namely transportation safety. The collection of information enhances rail safety by ensuring that adequate procedures are in place to detect and correct defects in continuous welded rail (CWR) track, particularly regarding defects involving rail joints in CWR. Without this collection of information, there would be no way that FRA could ensure that railroads/track owners develop procedures (or alternate procedures) which describe the scheduling and conduct of physical track inspections to detect cracks and other indications of incipient failure in CWR. Without such procedures, railroads would have no thorough and systematic way to examine CWR track and detect any of the following: (i) joint bars with visible or otherwise detectable cracks; (ii) loose, or bent, or missing joint bolts; (iii) rail end batter or mismatch that contributes to impact loads and instability of the joint; and (iv) evidence of excessive longitudinal rail movement in or near the joint, including – but not limited to

– wide rail gap, defective joint bolts, or displaced anchors. Such defects could lead to an increased number of derailments, with corresponding increased casualties, if left undiscovered and uncorrected.

Without the Fracture Reports required in this collection of information, FRA would have no means to monitor and evaluate whether railroads are carrying out the necessary inspections and taking appropriate corrective actions when CWR joint cracks or breaks are discovered. Also, without the data provided by these Fracture Reports, FRA would have no way to determine whether the inspection methods and inspection frequencies are appropriate or should be varied.

Also, without this collection of information, FRA would have no way to ensure that railroad personnel are adequately and properly trained to detect CWR defects. Without the required procedural documents and records mandated by § 213.119, FRA could not know whether railroad employees understand the conditions of potential joint failure for which they must inspect, as well as the necessary remedial actions that they must take after encountering such defects, and the agency could not verify that these inspections were actually carried out. This would be a serious handicap to the railroads and FRA's efforts to improve rail safety.

The collection of information enhances rail safety by reducing the likelihood of widegage derailments and corresponding injuries to railroad personnel and passengers, as well as resulting property damage. Presently, the maintenance decisions which determine crosstie and rail fastener replacement within the industry rely heavily on visual inspections made by maintenance personnel whose subjective knowledge is based on varying degrees of experience and training. The subjective nature of these inspections sometimes results in inconsistent determinations about the ability of individual crossties and rail fasteners to maintain adequate gage restraint. GRMS technology offers a better, more objective method to determine the ability of crossties and rail fasteners to maintain adequate gage restraint. It is widely known within the rail industry that crossties of questionable condition which are left too long can cause wide-gage derailments. By collecting the required GRMS information, FRA can ensure that Gage Restraint Measurement Systems (GRMS) technology is implemented on appropriate segments of track on a regional - and eventually a national - basis; that GRMS design requirements have been met; that GRMS vehicles have been properly calibrated so that the integrity of the data they provide is maintained; and that suitable GRMS training programs have been established by track owners so that persons fully qualified under §213.7 are properly trained in this new technology. With the new technology, suspect crossties and rail fasteners can be replaced in a more timely fashion, reducing the number of wide-gage derailments. This undoubtedly will make rail travel safer.

Other information collected and reviewed by FRA as a result of the Track Safety Standards, in particular written records, enhance rail safety by ensuring that track owners designate only qualified persons to inspect and maintain track, and to supervise

restorations and renewals of track under traffic conditions. The list of qualified persons to inspect or repair track is updated as new employees become qualified. These individuals must be able to demonstrate to track owners that they have the necessary experience and knowledge so that they can detect deviations from the requirements of this Part and prescribe appropriate remedial action to correct or safely compensate for those deviations. Each designated individual, including contractor personnel engaged by the track owner, must have written authorization from the track owner to prescribe remedial actions, and must have successfully completed a recorded examination. Consequently, these persons will better be able to identify rail defects and rail mismatches; determine the condition of crossties; evaluate track surface and alignment; ascertain gage restraint; and discern the maximum distance between rail ends over which trains may be allowed to pass. This, in turn, will serve to reduce the number of accidents/incidents and corresponding injuries, deaths, and property damage.

Additionally, inspection records are used by Federal and State investigators in the enforcement of the Track Safety Standards, and thus help promote rail safety. Track inspection records must indicate which track(s) are traversed by a vehicle that allows qualified persons to visually inspect the structure for compliance with this Part and which track(s) are inspected by foot. Records must be prepared on the day the inspection is made and must be signed by the person making the inspection. Further, records must specify the track inspected, date of inspection, location and nature of any deviation from the requirements of Part 213, the location of any intervals of track not tested per section 213.237(d), and the remedial action taken by the person making the inspection. Track owners are required to retain inspection records for at least two years after the inspection and for one year after the remedial action is taken. Track inspection records are an integral part of FRA's rail safety program, and serve to ensure that defects are detected promptly and necessary remedial actions are taken in a timely fashion.

In this information collection as in all its information collection activities, FRA seeks to do its very best to fulfill DOT Strategic Goals and to be an integral part of One DOT.