## INFORMATION COLLECTION SUPPORTING JUSTIFICATION TRACK SAFETY STANDARDS; IMPROVING RAIL INTEGRITY OMB NO. 2130-0010; RIN 2130-AC28

#### **Summary**

- This proposed rule information collection submission is a <u>revision</u> to the previously approved information collection for the Track Safety Standards; Continuous Welded Rail (CWR) cleared by OMB on April 24, 2010.
- FRA published the Final Rule in the **Federal Register** regarding its Track Safety Standards; Continuous Welded Rail (CWR) on August 25, 2009. <u>See</u> 74 FR 42988. FRA is publishing Notice of Proposed Rulemaking (NPRM) for Track Safety Standards; Improving Rail Integrity on October 19, 2012. See 77 FR 64249.
- The total number of burden hours requested for this submission is **1,723,119 hours.** The total number of responses requested is **2,438,980.**
- The burden has <u>decreased</u> from the last approved submission by **234,808 hours**.
- Total **program changes** <u>decreased</u> the burden by **2,000 hours**.
- Total **adjustments** <u>decreased</u> the burden by **232,808 hours**.
- \*\*The answer to question <u>number 12</u> itemizes the hourly burden associated with each requirement of this rule (See pp. 23-68).

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

The single most important asset to the railroad industry is its rail infrastructure, and historically the primary concern of the railroad companies is the probability of rail flaw development, broken rails, and subsequent derailments. This has resulted in railroads improving their rail maintenance practices, purchasing more wear-resistant rail, improving flaw-detection technologies, and increasing rail inspection frequencies in an effort to prevent rail defect development. The direct cost of an undetected rail failure is the difference between the cost of replacing the rail failure on an emergency basis, and the cost of the organized replacement of detected defects. However, a rail defect that

<sup>\*\*</sup>The answer to question **number 15** itemizes all adjustments and program changes.

goes undetected and results in a train derailment can cause considerable additional costs such as excessive service interruption, extensive traffic rerouting, environmental damage, and potential injury and loss of life.

To maximize the life of rail, railroads must accept a certain rate of defect development. This results in the railroad relying on regular rail inspection cycles, and strategically renewing rail that is obviously showing evidence of fatigue. The development of internal rail defects is an inevitable consequence of the accumulation and effects of fatigue under repeated loading. The challenge for the railroad industry is to avoid the occurrence of rail service failure due to the presence of an undetected defect. Rail service failures are expensive to repair and can lead to costly service disruptions and possibly derailments.

The effectiveness of a rail inspection program depends on the test equipment being properly designed and capable of reliably detecting rail defects of a certain size and orientation, while also ensuring that the test frequencies correspond to the growth rate of critical defects. The objective of a rail inspection program is to reduce the annual costs resulting from broken rails, which involve several variables.

The predominant factor that determines the risk of rail failure is the rate of development of internal flaws. Internal rail flaws have a period of origin and a period often referred to as slow crack growth life. The risk is introduced when internal flaws remain undetected during their growth to a critical size. This occurs when the period between when the crack develops to a detectable size is significantly shorter than the required test interval. In practice, the growth rate of rail defects is considered highly inconsistent and unpredictable. Rail flaw detection in conjunction with railroad operations often presents some specific problems. This is a result of high traffic volumes that load the rail and accelerate defect growth, while at the same time decreasing the time available for rail inspection. Excessive wheel loading can result in stresses to the rail that can increase defect growth rates. Consequently, heavy axle loading can lead to rail surface fatigue that may prevent detection of an underlying rail flaw by the test equipment. Most railroads attempt to control risk by monitoring test reliability through an evaluation process of fatigue service failures that occur soon after testing, and by comparing the ratio of service failures or broken rails to detected rail defects.

The tonnage required to influence defect development is also considered difficult to predict; however, once initiated, transverse defect development is influenced by tonnage. Rapid growth rates can also be associated with rail where high-tensile residual stresses are present in the railhead and in CWR in lower temperature ranges where the rail is in high longitudinal tension.

It is common for railroads to control risk by monitoring the occurrence of both detected and service defects. For U.S. railroads, risk is typically evaluated to warrant adjustment of test frequencies. The railroads attempt to control the potential of service failure by testing more frequently.

In general, the approach in conducting rail integrity research is focused to confirm whether rail defects can be detected by periodic inspection before they grow large enough to cause a rail failure. In the context of rails, damage tolerance is the capability of the rail to resist failure and continue to operate safely with damage (i.e., rail defects). This implies that a rail containing a crack or defect is weaker than a normal rail, and that the rail's strength decreases as the defect grows. As growth continues, the applied stresses will eventually exceed the rail's strength and cause a failure. Such information can be used to establish guidelines for determining the appropriate frequency of rail inspections to mitigate the risk of rail failure from undetected defects.

Current detection methods that are performed in the railroad industry utilize various types of processes with human involvement in the interpretation of the test data. These include the:

- Portable test process, which consists of an operator pushing a test device over the rail at a
  walking pace while visually interpreting the test data;
- Start/stop process, where a vehicle-based flaw detection system tests at a slow speed (normally not exceeding 20 mph) gathering data that is presented to the operator on a test monitor for interpretation;
- Chase car process, which consists of a lead test vehicle performing the flaw detection process in advance of a verification chase car; and
- Continuous test process, which consists of operating a high-speed, vehicle-based test system non-stop along a designated route, analyzing the test data at a centralized location, and subsequently verifying suspect defect locations.

The main technologies utilized for non-destructive testing on U.S. railroads are the ultrasonic and induction methods. Ultrasonic technology is the primary technology used, and induction technology is currently used as a complimentary system. As with any non-destructive test method, these technologies are susceptible to physical limitations that allow poor rail head surface conditions to negatively influence the detection of rail flaws. The predominant types of these poor rail head surface conditions are shells, engine driver burns, spalling, flaking, corrugation, and head checking. Other conditions that are encountered include heavy lubrication or debris on the rail head.

Induction testing requires the introduction of a high-level, direct current into the top of the rail and establishing a magnetic field around the rail head. An induction sensor unit is then passed through the magnetic field. The presence of a rail flaw will result in a distortion of the current flow, and it is this distortion of the magnetic field that is detected by the search unit.

Ultrasonics can be briefly described as sound waves, or vibrations, that propagate at a frequency that is above the range of human hearing, normally above a range of 20,000

Hz, or cycles per second. The range normally utilized during current flaw detection operations is 2.25 MHz (million cycles per second) to 5.0 MHz. Ultrasonic waves are generated into the rail by piezo-electric transducers that can be placed at various angles with respect to the rail surface. The ultrasonic waves produced by these transducers normally scan the entire rail head and web, as well as the portion of the base directly beneath the web. Internal rail defects represent a discontinuity in the steel material that constitutes the rail. This discontinuity acts as a reflector to the ultrasonic waves, resulting in a portion of the wave being reflected back to the respective transducer. These conditions include rail head surface conditions, internal or visible rail flaws, weld upset/finish, or known reflectors within the rail geometry such as drillings or rail ends. The information is then processed by the test system and recorded in the permanent test data record. Interpretation of the reflected signal is the responsibility of the test system operator.

Railroads have always inspected track visually to detect rail failures, and have been using crack-detection devices in rail-test vehicles since the 1930s. Meanwhile, trends in the railroad industry have been to increase traffic density and average axle loads. Current rail integrity research recognizes and addresses the need to review and update rail inspection strategies and subsequent preventive measures. This would include the frequency interval of rail inspection, remedial action for identified rail defects, and improvements to the performance of the detection process.

FRA has sponsored research related to railroad safety for several decades. One part of this research program is focused on rail integrity. The general objectives of FRA rail integrity research have been to improve railroad safety by reducing rail failures and the associated risks of train derailment, and to do so more efficiently through new maintenance practices that increase rail service life. Brief descriptions of the studies conducted by FRA focus on four different areas: analysis of rail defects; residual stresses in rail; strategies for rail testing; and other areas related to rail integrity, which include advances in nondestructive inspection techniques and feasibility of advanced materials for rail, rail lubrication, rail grinding, and wear. Moreover, rail integrity research is an ongoing effort, and will continue as annual tonnages and average axle loads increase on the nation's railroads.

Due to the limitations of current technology to detect internal flaws beneath surface conditions and in the base flange area, FRA's research has been focusing on other rail flaw detection technologies. One laser-based ultrasonic rail defect detection prototype, which is being developed by the University of California-San Diego under an FRA Office of Research and Development grant, has produced encouraging results in ongoing field testing. The project goal is to develop a rail defect detection system that provides better defect detection reliability and a higher inspection speed than is currently achievable. The primary target is the detection of transverse defects in the rail head. The method is based on ultrasonic guided waves, which can travel below surface discontinuities, hence minimizing the masking effect of transverse cracks by surface

shelling. The inspection speed can be improved greatly also because guided waves run long distances before attenuating.

Non-destructive test systems perform optimally on perfect test specimens. However, rail in track is affected by repeated wheel loading that results in the plastic deformation of the rail running surface that can create undesirable surface conditions as described previously. These conditions can influence the development of rail flaws. These conditions can also affect the technologies currently utilized for flaw detection by limiting their detection capabilities. Therefore, it is important that emerging technology development continue, in an effort to alleviate the impact of adverse rail surface conditions.

On March 17, 2001, the *California Zephyr*, a National Railroad Passenger Corporation (Amtrak) passenger train carrying 257 passengers and crew members, derailed near Nodaway, Iowa. According to the NTSB, sixteen cars decoupled from the two locomotives and eleven cars went off the rails. Seventy-eight people were injured and one person died from the accident. <u>See</u> NTSB/RAB-02-01.

The NTSB discovered a broken rail at the point of derailment. The broken pieces of rail were reassembled at the scene, and it was determined that they came from a 15½- foot section of rail that had been installed as replacement rail, or "plug rail," at this location in February, 2001. The replacement had been made because, during a routine scan of the existing rail on February 13, 2001, the Burlington Northern and Santa Fe Railway (now BNSF Railway Company or BNSF) discovered internal defects that could possibly hinder the rail's effectiveness. A short section of the continuous welded rail that contained the defects was removed, and a piece of replacement rail was inserted. However, the plug rail did not receive an ultrasonic inspection before or after installation.

During the course of the accident investigation, the NTSB could not reliably determine the source of the plug rail. While differing accounts were given concerning the origin of the rail prior to its installation in the track, the replacement rail would most likely have been rail which was removed from another track location for reuse. Analysis of the rail found that the rail failed due to fatigue initiating from cracks associated with the precipitation of internal hydrogen. If the rail had been ultrasonically inspected prior to its reuse, it is likely that the defects could have been identified and that section of rail might not have been used as plug rail.

As a result of its investigation of the Nodaway, Iowa, railroad accident, the NTSB recommended that FRA require railroads to conduct ultrasonic or other appropriate inspections to ensure that rail used to replace defective segments of existing rail is free from internal defects. <u>See</u> NTSB Recommendation-02-5.

On October 20, 2006, Norfolk Southern Railway Company (NS) train 68QB119 derailed while crossing the Beaver River railroad bridge in New Brighton, Pennsylvania. The

train was pulling eighty-three tank cars loaded with denatured ethanol, a flammable liquid. Twenty-three of the tank cars derailed near the east end of the bridge, causing several of the cars to fall into the Beaver River. Twenty of the derailed cars released their loads of ethanol, which subsequently ignited and burned for forty-eight hours. Some of the unburned ethanol liquid was released into the river and the surrounding soil. Homes and businesses within a seven-block area of New Brighton and in an area adjacent to the accident had to be evacuated for days. While no injuries or fatalities resulted from the accident, NS estimated economic and environmental damages to be \$5.8 million. See NTSB/RAB-08-9 through 12.

The NTSB determined that the probable cause of the derailment was an undetected internal rail defect identified to be a detail fracture. The NTSB also noted that insufficient regulation regarding internal rail inspection may have contributed to the accident.

This accident demonstrates the potential for rail failure with subsequent derailment if a railroad's internal rail defect detection process fails to detect an internal rail flaw. This accident also indicates a need for adequate requirements that will ensure rail inspection and maintenance programs identify and remove rail with internal defects before they reach critical size and result in catastrophic rail failures.

On February 24, 2009, the Office of Inspector General (OIG) for the Department of Transportation (DOT) issued a report presenting the results of its audit of FRA's oversight of track-related safety issues. The report made two findings. First, the OIG found that FRA's safety regulations for internal rail flaw testing did not require the railroads to report the specific track locations, such as milepost numbers or track miles that were tested during these types of inspections. Second, the OIG found that FRA's inspection data systems did not provide adequate information for determining the extent to which FRA's track inspectors have reviewed the railroads' records for internal rail flaw testing and visual track inspections to assess compliance with safety regulations. The OIG recommended that FRA revise its track safety regulations for internal rail flaw testing to require railroads to report track locations covered during internal rail flaw testing, and that FRA develop specific inspection activity codes for FRA inspectors to use to report on whether the record reviews FRA inspectors conduct were for internal rail flaw testing or visual track inspections. Enhancing the Federal Railroad Administration's Oversight of Track Safety Inspections, Department of Transportation, Office of Inspector General, CR-2009-038, February 24, 2009.

The first Federal Track Safety Standards were published on October 20, 1971, following the enactment of the Federal Railroad Safety Act of 1970, Pub. L. No. 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, Pub. L. No. 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 (Nov. 2, 1994). The amended\_statute is codified at 49 U.S.C. 20142 and required the Secretary of Transportation (Secretary) to review and then revise the Track Safety Standards, which are contained in 49 CFR Part 213. The Secretary has delegated such statutory responsibilities to the Administrator of FRA. See 49 CFR 1.49. FRA carried out this review on behalf of the Secretary, which resulted in FRA issuing a final rule amending the Standards in 1998. See 63 FR 34029, June 22, 1998; 63 FR 54078, Oct. 8, 1998.

Pursuant to 49 U.S.C. 20103, the Secretary may prescribe regulations as necessary in any area of railroad safety. FRA began its examination of rail integrity issues through RSAC on October 27, 2007. Then, on October 16, 2008, the Railroad Safety Improvement Act (RSIA) was enacted. Section 403(a) of the RSIA required the Secretary to conduct a study of track issues known as the Track Inspection Time Study (Study). In doing so, section 403(b) required the Secretary to consider "the most current rail flaw, rail defect growth, rail fatigue, and other relevant track- or rail-related research and studies" as part of the Study. The Study was completed and submitted to Congress on May 2, 2011. Section 403(c) also required the Secretary to promulgate regulations based on the results of the study. As delegated by the Secretary, see 49 CFR 1.49, FRA utilized its advisory committee, RSAC and its Rail Integrity Task Force, to help develop the information necessary to fulfill the RSIA's mandates in this area.

FRA notes that section 403 of the RSIA contains one additional mandate, which FRA has already fulfilled, promulgating regulations for concrete crossties. On April 1, 2011, FRA published a final rule on concrete crosstie regulations per this mandate in section 403(d). That final rule specifies requirements for effective concrete crossties, for rail fastening systems connected to concrete crossties, and for automated inspections of track constructed with concrete crossties. See 76 FR 18073. FRA received two petitions for reconsideration in response to that final rule, and responded to them by final rule published on September 9, 2011. See 76 FR 55819.

In this rulemaking and associated information collection, FRA is proposing to amend the Federal Track Safety Standards to promote the safety of railroad operations by enhancing rail flaw detection processes. In particular, FRA is proposing minimum qualification requirements for rail flaw detection equipment operators, as well as revisions to requirements for effective rail inspection frequencies, rail flaw remedial actions, and rail inspection records. Additionally, FRA is proposing to remove regulatory requirements concerning joint bar fracture reporting. This rulemaking is intended to implement section 403 of the Rail Safety Improvement Act of 2008 (RSIA).

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

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 possess (1) 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 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 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 amended 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)(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 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.

Under § 213.119(j), track owners must prescribe and comply with recordkeeping requirements necessary to provide an adequate history of track constructed with continuous welded rail (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 new 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 the proposed rule's § 213.237, currently, Classes 4 and 5 track, as well as Class 3 track over which passenger trains operate, are required to be tested for internal rail

defects at least once every accumulation of 40 million gross tons (mgt) or once a year (whichever time is shorter), and Class 3 track over which passenger trains do not operate are required to be tested at least once every accumulation of 30 mgt or once per year (whichever time is longer). When this standard was drafted, railroads were already initiating and implementing the development of a performance-based risk management concept for determination of rail inspection frequency that is often referred to as the "self-adaptive scheduling method." Under this method, inspection frequency is established based on several factors, including the total detected defect rate per test, the rate of service failures between tests, and the accumulated tonnage between tests. The railroads then utilize this information to generate and maintain a service failure performance target. [Note: As stated in the answer to question 12, there is no burden associated with the requirements of this section since the railroads/track owners are already fulfilling the requirements of this provision as part of their usual and customary procedure. The proposed changes to this section in the rule seek to codify standard industry good practices.]

Under the proposed rule's § 213.238, FRA is adding this new section to require that each provider of rail flaw detection have a documented training program to ensure that a flaw detection equipment operator is qualified to operate each of the various types of equipment currently utilized in the industry for which he or she is assigned. The rail inspection process is normally performed internally by the railroad or contracted to a service company that specializes in development of flaw detection equipment. Currently in the United States, there are three railroads that perform all or part of their rail inspection programs. These are Union Pacific, Canadian National, and Norfolk Southern. There are also three primary service companies that contract this specialized service to the railroads. They are Sperry Rail Service, Herzog Companies, and Nordco Industries. Each provider of the inspection process has in place a process for training the personnel to operate this type of specialized equipment. However, FRA proposes this section to establish minimal training requirements to ensure that a flaw detection equipment operator is fully qualified to operate the various types of equipment currently utilized in the industry, and that proper training is provided in the operation of newly developed technologies. This requirement will also prevent a company from developing new technology and contract the service to the railroad without having a documented training program in place. [Note: Again, as stated in the answer to question number 12, there is no burden associated with the requirements of this section since the railroads/track owners are already fulfilling the requirements of this provision as part of their usual and customary procedure. The proposed changes to this section in the rule seek to codify standard industry good practices.]

Under the proposed rule's § 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 proposes to require that the railroad's rail inspection records include the date of inspection, track identification and milepost for each location tested, type of defect found and size if not removed prior to traffic, and initial remedial action as required by

§ 213.113. FRA also proposes that all tracks that do not receive a valid test are documented in the railroad rail inspection records. 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 Federal Government's railroad safety program [Note: Again, as stated in the answer to question number 12, there is no burden associated with the requirements of this section since the railroads/track owners are already fulfilling the requirements of this provision as part of their usual and customary procedure. The proposed changes to this section in the rule seek to codify standard industry good practices.]

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. 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 proposed rule's § 213.238 specifically permits employee

qualification records to be kept electronically.

Also, the proposed rule's § 213.241 contains a provision for maintaining and retrieving electronic records of track inspections. Specifically, section 213.241(g) 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. According to FRA's Track Program Specialist, approximately 98% of all Part 213 responses are now submitted electronically to FRA or kept electronically by railroads/track owners.

## 4. Efforts to identify duplication.

FRA is not aware of any relevant Federal rules that may duplicate, overlap or conflict with the specific requirements proposed in this rule. Records of track inspection results describe a continuously changing condition at any given moment in time. Records of qualified track inspectors are unique to a specific railroad property, and no duplication of information exists. Consequently, there is no duplication of information because this information is both new and unique.

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 proposed rule are not available from any other source and there is no similar data available from any other source.

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

"Small entity" is defined in 5 U.S.C. 601. Section 601(3) defines a "small entity" as having the same meaning as "small business concern" under section 3 of the Small Business Act. This includes any small business concern that is independently owned and operated, and is not dominant in its field of operation. Section 601(4) likewise includes within the definition of "small entities" not-for-profit enterprises that are independently owned and operated, and are not dominant in their field of operation. The 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." Additionally, 5 U.S.C. 601(5) defines as "small entities" governments of cities, counties, towns, townships, villages, school districts, or special districts with populations less than 50,000.

Federal agencies may adopt their own size standards for small entities in consultation with the 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 is proposing to use this definition for this rulemaking. Any comments received pertinent to its use will be addressed in the final rule.

According to FRA, there are a total of 763 regulated railroads. There are seven (7) Class I railroads and 12 Class II railroads, all which are not considered to be small. There are a total of 29 commuter/passenger railroads, including Amtrak, affected by this rule. However, most of the affected commuter railroads are part of larger public transportation agencies that receive Federal funds and serve major jurisdictions with populations greater than 50,000.

The level of costs incurred by each railroad should generally vary in proportion to the number of miles of Class 3, 4 or 5 track. For instance, railroads with less mileage should have lower overall costs associated with implementing the standards, as proposed. There are 710 Class III railroads. Of those railroads, only 58 are affected by the rule. However, FRA has confirmation that 51 of these small railroads are already in compliance with this regulation. FRA also believes that the remaining seven (7) affected Class III railroads are also in compliance, and that no small entity would be negatively impacted by this regulation.

Also, it should be noted that FRA is proposing to remove the requirement under section 213.113(h)(7)(ii) that requires railroads to generate a Joint Bar Fracture Report (Fracture Report) for every cracked or broken CWR joint bar that the track owner discovers during the course of an inspection. The RSAC Track Standards Working Group ultimately determined that the reports were costly and burdensome to the railroads and their employees, while providing little useful research data to prevent future failures of CWR joint bars. The Group found that Fracture Reports were not successful in helping to determine the root cause of CWR joint bar failures because the reports gathered only a limited amount of information after the joint bar was already broken.

## 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, 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. 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.

FRA has further expanded this requirement by adding a new section to codify railroad best practices that requires that each provider of rail flaw detection have a documented training program to ensure that a flaw detection equipment operator is qualified to operate each of the various types of equipment currently utilized in the industry for which he or she is assigned (§ 213.238 Qualified Operator).

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 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 oversee 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, in particular written/electronic 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) and 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 country.

## 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 is publishing a Notice of Proposed Rulemaking (NPRM) in the **Federal Register** on October 19, 2012, soliciting public comments on the proposed rule and its accompanying information collection requirements. <u>See</u> 77 FR 64249. In this rulemaking, FRA is proposing to amend the Federal Track Safety Standards to promote the safety of railroad

operations by enhancing rail flaw detection processes (as required by the Rail Safety Improvement Act of 2008), and is soliciting public comments regarding this proposed rule and associated information collection. FRA will respond to any comments received concerning the proposed rule and associated information collection at the final rule stage.

## **Background**

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

American Association of Private Railroad Car Owners;

American Association of State Highway and Transportation Officials;

American Chemistry Council;

American Petrochemical Institute;

American Public Transportation Association (APTA);

American Short Line and Regional Railroad Association (ASLRRA);

American Train Dispatchers Association;

Amtrak;

Association of American Railroads (AAR);

Association of Railway Museums;

Association of State Rail Safety Managers (ASRSM);

Brotherhood of Locomotive Engineers and Trainmen (BLET);

Brotherhood of Maintenance of Way Employees Division (BMWED);

Brotherhood of Railroad Signalmen (BRS);

Chlorine Institute;

Federal Transit Administration:\*

Fertilizer Institute;

High Speed Ground Transportation Association;

Institute of Makers of Explosives;

International Association of Machinists and Aerospace Workers;

International Brotherhood of Electrical Workers;

Labor Council for Latin American Advancement:\*

League of Railway Industry Women;\*

National Association of Railroad Passengers;

National Association of Railway Business Women;\*

National Conference of Firemen & Oilers;

National Railroad Construction and Maintenance Association;

NTSB:\*

Railway Supply Institute;

Safe Travel America:

Secretaria de Comunicaciones y Transporte:\*

Sheet Metal Workers International Association;
Tourist Railway Association Inc.;
Transport Canada;\*
Transport Workers Union of America;
Transportation Communications International Union/BRC;
Transportation Security Administration; 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 a 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 members play an active role at the working group level in discussing the issues and options and in drafting the language of the consensus proposal, FRA is often favorably inclined toward the RSAC recommendation.

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 goals, is soundly supported, and is in accordance with policy and legal requirements. Often, FRA varies in some respects from the RSAC recommendation in developing the actual regulatory proposal or final rule. Any such variations would be noted and explained in the rulemaking document issued by FRA. However, to the maximum extent practicable, FRA utilizes RSAC to provide consensus recommendations with respect to both proposed and final agency action. If RSAC is unable to reach consensus on a recommendation for action, the task is withdrawn and FRA determines the best course of action.

The Track Safety Standards Working Group (Working Group) was formed on February 22, 2006. On October 27, 2007, the Working Group formed two subcommittees: the Rail Integrity Task Force (RITF) and the Concrete Crosstie Task Force. Principally in response to NTSB recommendation R-02-05,<sup>1</sup> the task statement description for the RITF

<sup>&</sup>lt;sup>1</sup> After the accident in Nodaway, the NTSB recommended that FRA "[r]equire railroads to conduct ultrasonic or other appropriate inspections to ensure that rail used to replace defective segments of existing rail is free from internal defects." NTSB Safety Recommendation R-02-5,

was to review the controls applied to the reuse of plug rail and ensure a common understanding within the regulated community concerning requirements for internal rail flaw inspections.

However, after the New Brighton accident, and in response to NTSB recommendations R-08-9, R-8-10, and R-08-11,² the RITF was given a second task on September 10, 2008, which directed the group to do the following: (1) evaluate factors that can and should be included in determining the frequency of internal rail flaw testing and develop a methodology for taking those factors into consideration with respect to mandatory testing intervals; (2) determine whether the quality and consistency of internal rail flaw testing can be improved and how; (3) determine whether adjustments to current remedial action criteria are warranted; and (4) evaluate the effect of rail head wear, surface conditions and other relevant factors on the acquisition and interpretation of internal rail flaw test results.

The RITF met on November 28-29, 2007; February 13-14, 2008; April 15-16, 2008; July 8-9, 2008; September 16-17, 2008; February 3-4, 2009; June 16-17, 2009; October 29-30, 2009; January 20-21, 2010; March 9-11, 2010; and April 20, 2010. The RITF's findings were reported to the Working Group for approval on July 28-30, 2010. The Working Group reached a consensus on the majority of the RITF's work and forwarded proposals to RSAC on September 23, 2010, and December 14, 2010. The RSAC voted to approve the Working Group's recommended text, which provided the basis for this NPRM.

In addition to FRA staff, the members of the Working Group include the following:

Association of American Railroads (AAR), including the Transportation Technology Center, Inc., and members from BNSF, Canadian National Railway (CN), Canadian Pacific Railway (CP), CSX Transportation, Inc., The Kansas City Southern Railway Company (KCS), NS, and Union Pacific Railroad Company (UP);

dated March 5, 2002.

<sup>&</sup>lt;sup>2</sup> After the New Brighton accident, the NTSB issued three additional safety recommendations dated May 22, 2008: (1) FRA should "[r]eview all railroads' internal rail defect detection and require changes to those procedures as necessary to eliminate exception to the requirement for an uninterrupted, continuous search for rail defects." R-08-9; (2) FRA should "[r]equire railroads to develop rail inspection and maintenance programs based on damage-tolerance principles, and approve those programs. Include in the requirement that railroads demonstrate how their programs will identify and remove internal defects before they reach critical size and result in catastrophic rail failures. Each program should take into account, at a minimum, accumulated tonnage, track geometry, rail surface conditions, rail head wear, rail steel specifications, track support, residual stresses in the rail, rail defect growth rates, and temperature differentials." R-08-10; and (3) FRA should "[r]equire that railroads use methods that accurately measure rail head wear to ensure that deformation of the head does not affect the accuracy of the measurements." R-08-11.

#### Amtrak;

American Public Transportation Association (APTA), including members from Northeast Illinois Regional Commuter Railroad Corporation (Metra), Long Island Rail Road (LIRR), and Southeastern Pennsylvania Transportation Authority (SEPTA); American Short Line and Regional Railroad Association (ASLRRA) (representing short

line and regional railroads);

National Transportation Safety Board (NTSB);

John A. Volpe National Transportation Systems Center;

Brotherhood of Locomotive Engineers and Trainmen (BLET);

Brotherhood of Maintenance of Way Employees Division (BMWED);

Brotherhood of Railroad Signalmen (BRS); and

United Transportation Union (UTU).

FRA has worked closely with RSAC in developing its recommendations and believes that RSAC has effectively addressed rail inspection safety issues regarding the frequency of inspection, rail defects, remedial action, and operator qualification. FRA has greatly benefited from the open, informed exchange of information during the meetings. There is a general consensus among railroads, rail labor organizations, State safety managers, and FRA concerning the primary principles set forth in this NPRM. FRA believes that the expertise possessed by RSAC representatives enhances the value of the recommendations, and FRA has made every effort to incorporate them in this proposed rule.

## 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. Assurance of confidentiality.

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

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

There are no questions of a sensitive nature in 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 763.

## § 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: 236 railroads (Class

III CWR)

Burden time per response: 15 minutes
Frequency of Response: On occasion
Approximately purples of Responses: 20 orders

Annual number of Responses: 20 orders

Annual Burden:

5 hours

hours

 Calculation:
 20

 orders
 x .25

 hr. = 5

(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: 236 railroads (Class

III CWR)

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 of track owners.

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: 763 railroads (all

Class I, Class II, and Class III)

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;
  - (ii) Can detect deviations from those requirements; and
  - (iii) Can prescribe appropriate remedial action to correct or safely compensate for those deviations; and
- (2) 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;
    - (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.

## Designations (fully qualified) under paragraphs (a) and (b):

Approximately 8,000 persons are employed by railroads in the inspection and maintenance of the track and structures with an estimated 2,000 of them possessing the necessary qualifications to be designated by the railroad as qualified persons. Approximately 7.5 % of that number (150) 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:	37 railroads (7 Class I, 30 Class	
	II and Class III)	
Burden time per response:	10 minutes	
Frequency of Response:	On occasion	
Annual number of Responses: Annual Burden:	150 names	
	25 hours	

 Calculation:
 150

 names
 x 10

 min. =
 25

- (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:
  - (4) Successfully completed a comprehensive training course specifically developed for the application of written CWR procedures issued by the track owner.

FRA expects 8,000 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 90 minutes to complete the comprehensive training course and demonstrate knowledge of the written CWR procedures. Total annual burden for this requirement is 12,000 hours.

Respondent Universe: 37 railroads (7 Class I, 30 Class

II and Class III)

Burden time per response: 90 minutes Frequency of Response: On occasion

Annual number of responses:

8,000 trained employees

hours

Annual Burden: 12,000 hours

**Calculation:** 80,000 trained employees x 90 min. = 120,000 hours

- (3) 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 8,000 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 9,333 hours.

Respondent Universe: 37 railroads (7 Class I, 30 Class

II and Class III)

Burden time per response: 10 minutes + 60 minutes

Frequency of Response: On occasion

Annual number of responses:

8,000 written authorizations

+ 8,000 recorded examinations

Annual Burden: 9,333 hours

Calcul ation: 8,000 written authori zations x 10 min. +

8,000 recorde d

examin ations x 60 min. = 9,333 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 mph 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 10 minutes to designate persons as partially qualified. Total annual burden for this requirement is 42 hours.

Respondent Universe: 37 railroads (7 Class I, 30 Class II

and Class III)

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

Annual number of responses:

250 names

Annual Burden: 42 hours

Calcul ation: 250 names x 10 min. = 42 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 paperwork involved is updating the current list maintained by the railroads, and to add any employees who would now be designated as partially qualified under the requirements of paragraph (c) of this section. Since railroads are already doing this as part of their

usual and customary procedure, there is no additional burden associated with this requirement.

Total annual burden for this entire requirement is 21,625 hours (250 + 12,000 + 9,333 + 42).

#### § 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 24 hours to prepare its petition and forward it to FRA. Total annual burden for this requirement is 144 hours.

Respondent Universe:

763 railroa ds (all Class I, Class II &

Class III RRs)

Burden time per response: 24 hours Frequency of Response: On occasion Annual number of Responses: 6 petitions

Annual Burden:

144 hours Calculation: 6 petitio ns x 24

hrs. = 144 hours

## § 213.57 Curves; elevation and speed limitations.

- A. Qualified equipment may be operated at curving speeds determined by the formula in paragraph (c) of this section, provided each specific class of equipment is approved for operation by the Federal Railroad Administration (FRA) and demonstrates that
  - (1) When positioned on a track with a uniform 4 inch superelevation, the roll angle between the floor of the equipment and the horizontal does not exceed 5.7 degrees; and
  - (2) When positioned on a track with a uniform 6 inch superelevation, no wheel of the equipment unloads to a value of 60 percent of its static value on perfectly level track, and the roll angle between the floor of the equipment and the horizontal does not exceed 8.6 degrees.
  - (3) The track owner must notify the Federal Railroad Administrator no less than 30 calendar days prior to the proposed implementation of the higher curving speeds allowed under the formula in paragraph (c) of this section. The notification must be in writing and must contain, at a minimum, the following information
    - 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) Identification of line segment on which the higher curving speeds are proposed to be implemented.

FRA estimates that approximately two (2) requests will be received annually. It is estimated that each request will take approximately 40 hours to complete and forward to FRA. Total annual burden for this requirement is 80 hours.

Respondent Universe:		
		763 railroa ds (all Class I, Class II, &
		Class III)
Burden time per response:	hours	40
Frequency of Response:	occasi	On on

	Annual number of Responses: Annual Burden:	2 requests	
			80 hours
	<u>Calculation:</u>		request s x 40 hrs. = 80 hours
В.	A track owner, or an operator of a passenger or commuter service over track the same class of equipment, that person is Federal Railroad Administrator with the vetrack owners.	age of more than one track own any provide written notification	ner with
this in	estimates that approximately two (2) notification collection requirement. It is esti ximately 45 minutes to complete. Total anapurs.	mated that each notification w	ill take
	Respondent Universe:	763 railroad	`
	Dunden time a new year anger	Class, Class II, and Class I	II)
	Burden time per response: Frequency of Response:	45 minutes On occasion	
	Annual number of Responses: Annual Burden:	2 notifications	
			2 hours
			2
	<u>Calculation</u> :		2 notific ations

- C. A track owner or a railroad operating above Class 5 speeds may request approval from the Federal Railroad Administrator to operate specified equipment at a level of cant deficiency greater than four inches in accordance with § 213.329(c) and (d) on curves in Class 1 through 5 track which are contiguous to the high speed track provided that
  - (1) The track owner or railroad submits a test plan to the Federal Railroad Administrator for approval no less than 30 calendar days prior to any proposed implementation of the higher curving speeds. The test plan shall include an analysis and determination of carbody acceleration safety limits for each vehicle type which indicate wheel unloading of 60 percent in a steady state condition and 80 percent in a transient (point by point) condition. Accelerometers shall be laterally-oriented and floor-mounted near the end of a representative vehicle of each type;
  - (2) Upon FRA approval of a test plan, the track owner or railroad conducts incrementally increasing train speed test runs over the curves in the identified track segment(s) to demonstrate that wheel unloading is within the limits prescribed in paragraph (1) above of this section;
  - (3) Upon FRA approval of a cant deficiency level, the track owner or railroad inspects the curves in the identified track segment with a Track Geometry Measurement System (TGMS) qualified in accordance with § 213.333(b) through (g) at an inspection frequency of at least twice annually with not less than 120 days interval between inspections; and
  - (4) The track owner or railroad operates an instrumented car having dynamic response characteristics that are representative of other equipment assigned to service or a portable device that monitors on-board instrumentation on trains over the curves in the identified track segment at the revenue speed profile at a frequency of at least once every 90 days with not less than 30 days interval between inspections. The instrumented car or the portable device shall monitor a laterally-oriented accelerometer placed near the end of the vehicle at the floor level. If the carbody lateral acceleration measurement exceeds the safety limits prescribed in paragraph (1) above, the railroad shall operate trains at curving speeds in accordance with paragraph (b) or (c) of this section; and
  - (5) The track owner or railroad shall maintain a copy of the most recent

exception printouts for the inspections required under paragraphs (3) and (4) above of this section.

The only paperwork requirement under this section would be the submission of a test plan required under (1) above. The records required under (5) above are already required under Subpart G requirements for the high speed sections of track which are contiguous to the lower speed sections. Both low speed and Subpart G sections of track would be examined in the same continuous test and the low speed exceptions would merely be added to the Subpart G record, which is already a requirement.

FRA anticipates submission of approximately two (2) test plans. It is estimated that it will take approximately 16 hours to prepare each submission in order to satisfy this requirement. Total annual burden for this requirement is 32 hours.

Respondent Universe: 1 railroad (Amtrak)

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

One-time number of Responses: 2 test plans

One-time Burden:

32 hours

<u>Calculation</u>: 2 test

plans x 16 hrs. = 32

hours

Total annual burden for this entire requirement is 114 hours (80 + 2 + 32).

## § 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 which specify that —

- (1) Gage restraint shall be measured between the heads of rail –
- (A) At an interval not exceeding 16 inches;
- (B) Under an applied vertical load of no less than 10,000 pounds per rail; and
- (C) 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 3,000 pounds but less than 8,000 pounds.

FRA estimates that approximately five (5) 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 45 minutes to complete each notification and forward it to the appropriate Regional office, and approximately four (4) hours to gather the necessary GRMS technical data. Total annual burden for this requirement is eight (8) hours.

Respondent Universe: 763 Railroads (all

Class I, Class II, and Class III)
Burden time per response:
45 minutes/4 hours
Frequency of Response:
On occasion

Annual number of Responses: 5 notifications + 1 technical report

Annual Burden:

8 hours

**Calculation:** 5 notifications x 45 min. + 1 report x 4 hrs. = 8 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 five (5) minutes for the entire process to produce each output report. Total annual burden for this requirement is four (4) hours.

Respondent Universe: 763 Railroads (all

Class I, Class II, and Class III)

Burden time per response: 5 minutes
Frequency of Response: On occasion
Annual number of Responses: 50 output reports

Annual Burden:

4 hours

50

<u>Calculation</u>:

output reports x 5 min. = 4 hours

C. 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 five (5) minutes to complete each output report. Total annual burden for this requirement is four (4) hours.

Respondent Universe: 763 Railroads (all

Class I, Class II, and Class III)

Burden time per response: 5 minutes
Frequency of Response: On occasion
Annual number of Responses: 50 exception reports

Annual Burden:

4 hours

**Calculation:** 

excepti on reports x 5 min. = 4 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: 763 Railroads (all Class I, Class II, and Class III)

Burden time per response: 2 hours
Frequency of Response: On occasion
Annual number of Responses: 4 documented procedures

Annual Burden:

8 hours

<u>Calculation</u>:

4 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 16 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 112 hours.

Respondent Universe: 763 Railroads (all Class I, Class II, and Class III)

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

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

Annual Burden:

**Calculation:** 2 training prog. x 16 hrs. + 5 training sess. x 16 hrs =

112 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: 763 Railroads (all Class I, Class II, and Class III)

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. = 100hours

Total annual burden for this entire requirement is 236 hours (8 + 4 + 4 + 8 + 112 + 100).

### § 213.113 Defective Rails

- (a) When an owner of track learns that a rail in the track contains any of the defects listed in the table contained in paragraph (c) of this section, a person designated under § 213.7 shall determine whether the track may continue in use. If the designated person determines that the track may continue in use, operation over the defective rail is not permitted until —
- (1) The rail is replaced or repaired; or
- (2) The remedial action prescribed in the table contained in paragraph (c) of this section is initiated.
- (b) When an owner of track learns that a rail in the track contains an indication of any of the defects listed in the table contained in paragraph (c) of this section, the track owner shall verify the indication. The track owner must verify the indication within four hours, unless the track owner has an indication of the existence of the defects that require remedial action A, A2, or B identified in the table contained in paragraph (c) of this section, in which case the track owner must immediately verify the indication. If the indication is verified, the track owner must —
- (1) Replace or repair the rail; or
- (2) Initiate the remedial action prescribed in the table contained in paragraph (c) of this section.

The burden for designations is included above under section 213.7. Railroads are already fulfilling the rest of the above requirement regarding determinations by designated persons and verification of the indications of any defects listed in paragraph (c) of this section. Consequently, there is no additional burden associated with this requirement.

### § 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 279 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 1,116 hours.

> Respondent Universe: 279 Railroads (7

> > Class I, 36 Class II and passenger

trains and 236 Class)

Burden time per response: 4 hours Frequency of Response: On occasion Annual number of Responses: 279 revised plans Annual Burden:

> 1,116 hours

Calculation:

revised plans x 4 hrs. =

279

1,116 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 279 written notifications advising FRA and an additional 8,000 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 336 hours.

Respondent Universe: 279 Railroads (7

Class I, 36 Class II and passenger

trains and 236 Class)

Burden time per response: 15 minutes + 2 minutes

Frequency of Response: On occasion

Annual number of Responses: 279 written notifications + 8,000

written notifications

Annual Burden:

336 hours

**<u>Calculation</u>**: 279 written notifications x 15 min. + 8,000 written

notifications x 2 min. = 336 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: 279 Railroads (7

Class I, 36 Class II and passenger

trains and 236 Class)

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

Annual Burden:

**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: 279 Railroads (7

Class I, 36 Class II and passenger

trains and 236 Class)

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 1,512 hours (1,116 + 336 + 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 to be installed, the track owner shall perform any one of the following 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 an earlier approved submission. The burden for the 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 buckling-prone 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;
- (6) 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.
- (7) 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 an earlier approved submission. The burden for the 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:
  - The track owner shall keep a record of each periodic and follow-up (i) 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), 213.323, or 213.325 on track that is required under § 213.119(h)(d)(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 requirement under paragraph (h)(7)(ii) of this section that railroads generate a Joint Bar Fracture Report (Fracture Report) for every cracked or broken CWR joint bar that the track owner discovers during the course of an inspection is being removed under the proposed rule. Under this section, any track owner, after February 1, 2010, could petition FRA to conduct a technical conference to review fracture report data submitted through December 2009 and assess the necessity for continuing to collect this data. One Class I railroad submitted a petition to FRA, and on October, 26, 2010, a meeting of the RSAC Track Standards Working Group served as a forum for a technical conference to evaluate whether there was a continued need for the collection of these reports. The Group ultimately determined that the reports were costly and burdensome to the railroads and their employees, while providing little useful research data to prevent future failures of CWR joint bars. The Group found that Fracture Reports were not successful in helping to determine the root cause of CWR joint bar failures because the reports gathered the information after the joint bar was already broken.

Instead, the Group recommended that a new study be conducted to determine what conditions lead to CWR joint bar failures and include a description of the overall condition of the track in the vicinity of the failed joint(s); photographic evidence of the failed joint, track geometry (gage, alignment, profile, cross-level) at the joint location; and the maintenance history at the joint location. Two Class I railroads volunteered to participate in a new joint bar study, which is expected to provide better data to pinpoint why CWR joint bars fail. In the meantime, since FRA does not find it beneficial to retain the existing requirement for railroads to submit CWR joint bar Fracture Reports, it is removing it from the rule. However, FRA proposes to require that the railroad's rail inspection records include the date of inspection, track identification and milepost for each location tested, type of defect found and size, if not removed prior to traffic, and initial remedial action as required by § 213.113. FRA also proposes that all tracks that do not receive a valid test are documented in the railroad rail inspection records. As a result of the above, there is no additional burden associated with this requirement.

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

(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.

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.

# Annual CWR Re-Training of Employees After First Year

FRA expects all 8,000 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 4,000 hours.

Respondent Universe: 37 railroads (7 Class I and 30 Class

II and III)

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

Annual number of responses:

8,000 re-trained employees

Annual Burden: 4,000 hours

**Calculation:** 8,000 re-trained employees x 30 min. = 4,000 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:

279 railroads (7 Class I, 36 Class II and passenger trains and 236

Class III) + ASLRRA

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

One time number of Responses:

One time Burden:

2,000 records

333 hours

**Calculation:** 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:

279 railroads (7 Class I, 36 Class II and passenger trains and 236

Class III) + ASLRRA

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:

279 railroads (7 Class I, 36

Class II and passenger trains and 236

Class III) + ASLRRA 1 minute

Burden time per response: Frequency of Response:

One time number of Responses:

One time Burden:

On occasion 480,000 records

8,000 hours

# **Calculation:**

480,00 0 records x 1 min. = 8,000 (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 279 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 47 hours.

Respondent Universe: 279 Railroads (all

Class I, Class II, and Class III)
Burden time per response: 10 minutes
Frequency of Response: On occasion

Annual number of Responses: 279 CWR procedures manual

Annual Burden:

47 hours

**Calculation:** 279 CWR procedures manuals x 10 min. = 47 hours

Total annual burden for this entire requirement is 24,380 hours (4,000 + 333 + 12,000 + 8,000 + 47).

### § 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: 763 Railroads (all

Class I, Class II, and Class III)

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

weekly/weekly/monthly

Annual number of Responses: 12,500 notations

Annual Burden:

208 hours

<u>Calculation</u>: 12,500

inspect ions x 1 min. = 208 hours

### § 213.237 Inspection of Rail (New Requirements)

(a) In addition to the inspections required by § 213.233, a track owner shall conduct

internal rail inspections sufficient to maintain service failure rates per rail inspection segment in accordance with this paragraph (a) for a 12-month period as determined by the track owner and calculated within 45 days of the end of the period. These rates shall not include service failures that occur in rail that has been replaced through rail relay since the time of the service failure. Rail used to repair a service failure defect is not considered rail relay. The service failure rates shall not exceed —

- (1) 0.1 service failure per year per mile of track for all Class 4 and 5 track;
- (2) 0.09 service failure per year per mile of track for all Class 3, 4, and 5 track that carries regularly-scheduled passenger trains or is a hazardous material route; and
- (3) 0.08 service failure per year per mile of track for all Class 3, 4, and 5 track that carries regularly-scheduled passenger trains and is a hazardous material route.
- (b) Each rail inspection segment shall be designated by the track owner no later than [DATE 60 DAYS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] for track that is Class 4 or 5 track, or Class 3 track that carries regularly-scheduled passenger trains or is a hazardous material route and is used to determine the milepost limits for the individual rail inspection frequency.

The proposed changes to this section in the rule seek to codify standard industry good practices. These rail inspection segments have already been designated by railroads/track owner as part of their standard operating procedures. Consequently, there is no additional burden associated with this requirement.

(1) To change the designation of a rail inspection segment or to establish a new segment pursuant to this section, a track owner may submit a detailed request to the FRA Associate Administrator for Railroad Safety/Chief Safety Officer (Associate Administrator). Within 30 days of receipt of the submission, FRA will review the request. FRA will approve, disapprove or conditionally approve the submitted request, and will provide written notice of its determination.

The proposed changes to this section in the rule seek to codify standard industry good practices. Further, FRA does not anticipate any requests by railroads/track owners to change the designation of a rail inspection segment or establish a new segment pursuant to this section. Consequently, there is no additional burden associated with this requirement.

(2) The track owner's existing designation shall remain in effect until the track owner's new designation is approved or conditionally approved by FRA.

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

Since FRA does not anticipate any requests by railroads/track owners to change the designation of a rail inspection segment or establish a new segment pursuant to this section, the agency will not have to provide an approval or conditional approval and thus railroads/track owners will not have to establish the designation's effective date and not have to advise FRA in writing and all affected employees of the effective date. Consequently, there is no additional burden associated with this requirement.

(d) If the service failure rate target identified in paragraph (a) of this section is not achieved, the track owner must inform FRA of this fact within 45 days of the end of the defined 12-month period in which the performance target is exceeded. In addition, the owner may provide to FRA an explanation as to why the performance target was not achieved and provide a remedial action plan.

The proposed changes to this section in the rule seek to codify standard industry good practices. Railroads/track owners are already far exceeding the minimum standards and thus will not need to inform FRA that the service failure rate identified in paragraph (a) of this section is not achieved. Consequently, there is no additional burden associated with this requirement.

(e) Each defective rail shall be marked with a highly visible marking on both sides of the web and base except that, where a side or sides of the web and base are inaccessible because of permanent features, the highly visible marking shall be placed on or next to the head of the rail.

The proposed changes to this section in the rule seek to codify standard industry good practices. Marking defective rail is already railroad standard operating procedure for railroads/track owners affected by this proposed rulemaking. Consequently, there is no additional burden associated with this requirement.

## § 213.238 Qualified Operator (New Requirements)

(a) Each track owner or railroad conducting rail flaw detection shall have a documented training program in place and shall identify the types of rail flaw detection equipment for which each operator has received training and is qualified.

The proposed changes to this section in the rule seek to codify standard industry good practices. Railroads/track owners that conduct rail flaw detection already have rail flaw detection training programs in place. Consequently, there is no additional burden associated with this requirement.

- (b) A qualified operator shall be trained and shall have written authorization by the employing track owner or railroad (employer) to:
- (1) Conduct a valid search for internal rail defects utilizing the specific type(s) of equipment for which he or she is authorized and qualified to operate;
- (2) Determine that such equipment is performing as intended;
- (3) Interpret equipment responses and institute appropriate action in accordance with the employer's procedures and instructions; and
- (4) Determine that each valid search for an internal rail defect is continuous throughout the area inspected and has not been compromised due to environmental contamination, rail conditions, or equipment malfunction.

The proposed changes to this section in the rule seek to codify standard industry good practices. Railroad employees who conduct rail flaw detection already have ultrasonic qualification training as well as written authorization by the employing railroad/track owner to conduct valid searches for rail internal defects using the required specific type(s) of equipment. Consequently, there is no additional burden associated with this requirement.

(c) The operator must have received training in accordance with the documented training program and a minimum of 160 hours of rail flaw detection experience under direct supervision of a qualified operator or rail flaw detection equipment manufacturer's representative. The operator must demonstrate proficiency in the rail defect detection process, including the equipment to be utilized, prior to initial qualification and authorization by the employer for each type of equipment.

The proposed changes to this section in the rule seek to codify standard industry good practices. Railroad employees who conduct rail flaw detection have already received ultrasonic qualification training under the direct supervision of a qualified operator or rail flaw detection equipment manufacturer's representative. Consequently, there is no additional burden associated with this requirement.

(d) Each employer shall reevaluate the qualifications of, and administer any necessary recurrent training for, the operator as determined by and in accordance with the employer's documented program. The reevaluation and recurrent training may consist of a periodic review of test data submitted by the operator. The reevaluation process shall require that the employee successfully complete a recorded examination and demonstrate proficiency to the employer on the specific equipment type(s) to be operated.

The proposed changes to this section in the rule seek to codify standard industry good

practices. Railroad employees are presently reevaluated and retrained every three years as part of each railroad's certification program. These employees are required to take a recorded exam and demonstrate proficiency on the specific equipment type(s) they use to conduct internal rail flaw detection inspections. Consequently, there is no additional burden associated with this requirement.

(e) Each employer of a qualified operator shall maintain written or electronic records of each qualification in effect. Each record shall include the name of the employee, the equipment to which the qualification applies, date of qualification, and date of the most recent reevaluation, if any.

The proposed changes to this section in the rule seek to codify standard industry good practices. Railroads/track owners already keep the records of each qualified employee as part of their usual and customary procedure. Consequently, there is no additional burden associated with this requirement.

# § 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; track inspected, including beginning and end points; location and type of defects found under § 213.113; size of defects found under § 213.113, if not removed prior to the next train movement; initial remedial action taken and the date thereof; and location of any track not tested pursuant to § 213.237(g). 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;
- (3) 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 763 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: 763 Railroads (all

class I, class II, and class III)

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> See above

for burden hour calcula tion.

The revised rule requires that the railroad's rail inspection records include the date of inspection, track identification and milepost for each location tested, type of defect found and size if not removed prior to traffic, and initial remedial action as required by § 213.113. FRA also proposes that all tracks that do not receive a valid test are documented in the railroad rail inspection records.

There is no additional burden associated with this requirement, because it is already being performed under the current rule.

# **HIGH SPEED TRACK**

# 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

Annual number of Responses: 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 contractor personnel engaged 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 of this subpart and successful completion of a recorded examination on this subpart 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.
- B. Inspect track for defects. Each individual designated must have written authorization from 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. The recorded examination might be written, or it might be, for example, a computer file with the results of an interactive training course.
- 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)

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

### 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 10 minutes for track owners to so designate each employee or contract worker. Total annual burden for this requirement is three (3) hours.

Respondent Universe: 2 railroads (Amtrak & Metro North)

Burden time per response: 10 minutes
Frequency of Response: On occasion
Annual number of Responses: 20 designations

Annual Burden: 3 hours

**Calcul** ation:

qualifi cations x 10 min. = 3 hours

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

### 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:** 1 petitio

n x 80 hrs. = 80 hours

### 213.329 Curves, elevation and speed limitations.

- Qualified equipment may be operated at curving speeds determined by the A. formula in paragraph (c) of this section, provided each specific class of equipment is approved for operation by the Federal Railroad Administration (FRA) and demonstrate that -
  - When positioned on a track with uniform superelevation, E<sub>a</sub>, reflecting the (1)intended target cant deficiency, E<sub>u</sub>, no wheel of the equipment unloads to a value of 60 percent or less of its static value on perfectly level track and the roll angle between the floor of the vehicle and the horizontal does not exceed 5.7 degrees.
  - (2) When positioned on a track with a uniform 7-inch superelevation, no wheel unloads to a value less than 60% of its static value on perfectly level track and the angle, measured about the roll axis, between the floor of the vehicle and the horizontal does not exceed 8.6 degrees.
- В. The track owner must notify the Federal Railroad Administrator no less than 30 calendar days prior to any proposed implementation of the higher curving speeds allowed when the "E<sub>u</sub>" term, above, will exceed three inches. 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 system 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;
- (iv) Identification of line segment on which the higher curving speeds are proposed to be implemented.

FRA estimates that it will receive approximately three (3) notifications under the above requirement. It is estimated that it will take approximately 40 hours to complete each notification and forward it to FRA. Total annual burden for this requirement is 120 hours.

Respondent Universe:	2 railroads (Amtrak &
-	Metro North)
Burden time per response:	40 hours
Frequency of Response:	On occasion
Annual number of Responses:	3 notifications
Annual Burden:	

Calculation:

3 notific ations x 40 hrs. = 120 hours

C. A track owner, or an operator of a passenger or commuter service, who provides

passenger or commuter service over trackage of more than one track owner with the same class of equipment, may provide written notification to the Federal Railroad Administrator with the written consent of the other affected track owners.

FRA estimates that it will receive approximately three (3) notifications under the above requirement. It is estimated that it will take approximately 45 minutes to complete each notification and forward it to FRA. Total annual burden for this requirement is two (2) hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

Burden time per response: 45 minutes
Frequency of Response: On occasion
Annual number of Responses: 3 notifications

Annual Burden:

2 hours

Calculation: 3

notific ations x 45 min. = 2 hours

Total annual burden for this entire requirement is 122 hours (120 + 2).

## 213.333 Automated Vehicle Inspection Systems

## (A) Track Geometry Measurement System

For track Class 7, a qualifying Track Geometry Measurement System (TGMS) vehicle shall be operated at least twice within 120 calendar days with not less than 30 days between inspections for Class 7 and shall be operated at least twice within 60 days with not less than 15 days between inspections for Classes 8 and 9.

- (a) A qualifying TGMS must be capable of producing, no later than the day of the inspection, output reports that
  - (1) Provide a continuous analog 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.

The output reports required under paragraph (c) of this section must contain sufficient location identification information which enable field forces to easily locate indicated exceptions.

- (b) The track owner shall maintain, for a period of one year following an inspection performed by a qualifying TGMS, copy of the analog plot and the exception printout 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 18 reports under the above requirements. It is estimated that it will take approximately 20 hours to complete each required report. Total annual burden for this requirement is 360 hours.

Respondent Universe: 3 railroads (Amtrak,

Metro North, + 1 possible future

railroad)

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

Annual number of Responses: 18 reports

Annual Burden:

360 hours **Calculation:** 18 reports  $\times$  20 hrs. = 360 hours

# (B) Track/Vehicle Performance Measurement System

(a) Each track owner shall have in effect written procedures for the notification of track personnel when on-board accelerometers on trains in Classes 8 and 9 indicate a possible track-related condition.

Since only one (1) track owner (Amtrak) will have such a program of written procedures and since it has already been completed these written procedures, there is no additional burden associated with this requirement.

(b) For track Classes 7, 8 and 9, an instrumented car having dynamic response characteristics that are representative of other equipment assigned to service or a portable device that monitors on-board instrumentation on trains shall be operated over the track at the revenue speed profile at a frequency of at least twice within 60 days with not less than 15 days between inspections. The instrumented car or the portable device shall provide for the monitoring of vertically and laterally oriented accelerometers mounted on the sides of the car at locations corresponding to four feet above the floor at each corner of the car. In addition, accelerometers shall be mounted above an axle of each truck. If the carbody lateral, carbody vertical, truck frame lateral, and truck frame vertical safety limits are exceeded, speeds will be reduced until these vehicle/performance safety limits are not exceeded.

For track Classes 8 and 9, an instrumented car having dynamic response characteristics that are representative of other equipment assigned to service shall be operated over the track at the revenue speed profile annually with not less than 180 days between inspections. The instrumented car shall be equipped with instrumented wheel sets to measure wheel/rail forces. If the wheel/rail force limits are exceeded, speeds will be reduced until these vehicle/performance safety limits are not exceeded.

The track owner shall maintain a copy of the most recent exception printouts for the inspections required under paragraph (1) and (2) above.

FRA estimates that approximately 13 exception printouts will be kept by railroads (track owners) under the above requirement. It is estimated that it will take approximately 20

hours to produce each printout. Total annual burden for this requirement is 260 hours.

Respondent Universe: 2 railroads (Amtrak &

Metro North)

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

Annual number of Responses: 13 printouts

Annual Burden:

260 hours

<u>Calculation</u>: 13

printou ts x 20 hrs. = 260 hours

Total annual burden for this entire requirement is 620 hours (360 + 260).

## 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

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

<u>Calculation</u>: 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.

At the end of test, when maximum safe operating speed is known along with permissible levels of cant deficiency, a test run will be made with the subject equipment over the entire route proposed for revenue service at the speeds the railroad will request FRA to approve for such service and a second run again at 10 mph above this speed. A report of the test procedures and results shall be submitted to FRA upon the completions of the tests. The test report shall include the design flange angle of the equipment which shall be used for the determination of the lateral to vertical wheel load safety limit for the track/vehicle interaction safety measurements required per § 213.333(l).

According to FRA engineers, vehicle qualification testing is an extensive process. It involves on-site testing (80 hours), data dissemination to prepare a report (160 hours), developing a test plan (160 hours), the associated lean test (80 hours), and contractor consultation (80 hours). Thus, to prepare the required report of test procedures and submit it to FRA, it will take approximately 560 hours.

FRA estimates that it will receive approximately two (2) reports of tests procedures and results under the above requirement. As noted above, it is estimated that it will take approximately 560 hours to complete each report. Total annual burden for this requirement is 1,120 hours.

Respondent Universe: 1 railroad (Amtrak)

Burden time per response: 560 hours Frequency of Response: On occasion

Annual number of Responses: 2 reports

Annual Burden:

1,120 hours

Calculation: 2

reports x 560 hrs. = 1,120 hours

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.

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

## 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.

#### 213.369 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)
5 minutes

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).

Total annual burden for this entire information collection is 1,723,119 hours.

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

As noted in the previous submission, there are no additional costs to respondents other than the hour burden costs.

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

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

- 1. \$0 FRA staff previously reviewed 240 procedures (which describe the scheduling and conduct of physical track inspections to detect cracks and other incipient failures in CWR). This one-time requirement has been completed by FRA employees and, as a result, there is no additional cost to FRA.
- 2. \$0 FRA staff previously reviewed alternate procedures. This one-time requirement has been completed by FRA employees and, as a result, there is no additional cost to FRA.
- 3. \$1,025,431 -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.

#### Total CWR Costs = **\$1,025,431**

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

1. \$4,260 - 16 hours for 2 GS-14s to review technical data + 30 hours for 2 GS-13s to review notifications.

Total GRMS Costs = \$4,260

Grand Cost Total to Federal Government = \$1,029,691

## 15. Explanation of program changes and adjustments.

The total burden has <u>decreased</u> from the last approved submission by **234,808 hours**. The change in burden is due both to **adjustments** and **program changes** that result from the passage of the Rail Safety Improvement Act of 2008. The following table reflects changes due to revised estimates:

#### **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)		
	·				
213.7 –					
Designated Fully	1,500 names	150 names	250 hours	25 hours	225 hours
Qualified	10 minutes	10 minutes			1,350 resp.
Employees to					

Inspect Track					
213.7 – CWR	80,000 trained	8,000 trained	120,000 hours	12,000 hours	108,000 hours
Training for RR	employees	employees	,	,	72,000 resp.
Employees	90 minutes	90 minutes			, ,
213.7 – CWR	80,000 approvals	8,000 approvals +	93,333 hours	9,333 hours	84,000 hours
Authorizations to	+ 80,000 exams	8,000 exams			144,000 resp.
Perform Remedial	10 minutes + 60	10 minutes + 60			, 1
Actions +	minutes	minutes			
Recorded Exams					
213.118(a) –	728 plans	279 plans	2,912 hours	1,116 hours	1,796 hours
CWR Written	4 hours	4 hours		,	449 responses
Plans – Revisions					1
213.118(d) –	728 notifications	279 notifications	2,849 hours	336 hours	2,513 hours
Notifications to	+ 80,000	+ 8,000			72,449 resp.
FRA and RR	notifications	notifications			, 1
Employees of	15 minutes +	15 minutes +			
CWR Effective	2 minutes	2 minutes			
Date					
213.119 – Annual	80,000 employees	8,000 employees	40,000 hours	4,000 hours	36,000 hours
CWR Retraining	30 minutes	30 minutes			72,000 resp.
of Employees					
213.119(h)(7)(ii)	1 petition	0 petitions	.25 hour	0 hours	25 hour
(c) – Petitions to	15 minutes	0 minutes			1 response
FRA to Conduct					_
Technical					
Conference					
213.119(h)(8)(i)	240 amended	0 amended	240 hours	0 hours	240 hours
– Amended	training programs	training programs			240 responses
Training Programs	1 hour	0 hours			
for the Application					
of CWR					
Procedures					
213.119(k) –	239 manuals	279 manuals	40 hours	47 hours	+ 7 hours
CWR Manuals	10 minutes	10 minutes			+ 40 responses
Made Available					
213.305(c) –	150 designations	20 designations	25 hours	3 hours	25 hours
Employees Fully	10 minutes	10 minutes			150 responses
Designated to					
Inspect CWR					
Track			_	_	
213.347 –	2 protection plans	0 protection plans	16 hours	0 hours	16 hours
Protection Plans	8 hours	0 hours			2 responses
for Class 7 Track					
at Highway-Rail					
Grade Crossings					

Adjustments above <u>decreased</u> the burden by 232,808 hours and <u>decreased</u> responses by 362,601 from the last approved submission.

# **PROGRAM CHANGES**

Part 213 Sec.	Respondent	Responses	Burden Hour Est.	Burden Hours	Difference
	Universe				(plus/minus)
213.119(h)(7)(ii)  -Fracture Reports to FRA for Every Cracked or Broken CWR Joint Bar – Eliminated	239 Railroads	12,000 CWR Fracture Reports	10 minutes	2,000 hours	2,000 hours 12,000 resp.

Program changes above <u>decreased</u> the burden by 2,000 hours and <u>decreased</u> responses by 12,000 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 1,723,119 hours. Hence, there is a total <u>decrease</u> of 234,808 hours.

There is no change in cost from the last submission.

## 16. Publication of results of data collection.

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.

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.