



U.S. Department
of Transportation

**Federal Railroad
Administration**

**2013 FRA REPORT TO CONGRESS ON
ACTIONS TAKEN TO IMPLEMENT
UNMET STATUTORY MANDATES AND
ADDRESS OPEN RECOMMENDATIONS BY THE NTSB
AND DOT'S INSPECTOR GENERAL
REGARDING RAILROAD SAFETY**

June 2014

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Exhibits:

Exhibit A: Unmet Congressional Rail Safety Mandates (as of December 31, 2013)

Exhibit B: Open Rail Safety Recommendations by the National Transportation
Safety Board (NTSB) to the Federal Railroad Administration (FRA) (as of
December 31, 2013)

Exhibit C: Open Rail Safety Recommendations by the U.S. Department of
Transportation’s Office of Inspector General (OIG) (as of December 31, 2013)

Basis for This Report

This report responds to Section 106 of the Rail Safety Improvement Act of 2008 (RSIA), Pub. L. No. 110-432, Div. A, 122 Stat. 4848 et seq., enacted on October 16, 2008. Section 106 reads as follows:

SEC. 106. REPORTS ON STATUTORY MANDATES AND RECOMMENDATIONS.

Not later than December 31, 2008, and annually thereafter, the Secretary shall transmit a report to the House of Representatives Committee on Transportation and Infrastructure and the Senate Committee on Commerce, Science, and Transportation on the specific actions taken to implement unmet statutory mandates regarding railroad safety and each open railroad safety recommendation made by the National Transportation Safety Board or the Department's Inspector General.

Reliance on the Federal Railroad Administration's December 2012 Report

In preparing this report on behalf of the Secretary of Transportation, the Federal Railroad Administration (FRA) has relied on the report that it prepared as of December 2012 and transmitted to the appropriate congressional committees to fulfill this annual requirement. Mandates and recommendations, either added to or removed from the December 2012 Report, are noted below.

Treatment of Mandates in the RSIA

The RSIA introduced numerous mandates regarding railroad safety. Some of these mandates require action to be taken after the completion of this report, and FRA has not included in this report the mandates with statutory deadlines after December 31, 2013.

FRA reiterates its commitment to meet each new statutory deadline to the extent practicable and has a centralized process for tracking and monitoring implementation of all congressional rail safety mandates. This process uses Microsoft SharePoint, an Intranet-based application accessible to FRA leadership and assigned staff to review and edit information to facilitate the planning and managing of work assignments. This system is called Regulations and Program Development Tracking. In addition, the Office of Policy in the Office of the Secretary of Transportation has a separate, Intranet-based tracking system that uses a different type of software called the Legislative Implementation Plan Data System. FRA has a parallel legislative implementation plan for the RSIA employing that software.

The Office of the Secretary of Transportation also has other systems for tracking the status of congressionally mandated reports to Congress, and for tracking rulemakings. FRA would be glad to provide additional information on these tracking systems and its progress in implementing the various mandates.

Discussion of Exhibit A: Unmet Congressional Rail Safety Mandates

Exhibit A lists FRA's nine congressional rail safety mandates that were unmet as of December 31, 2013, and actions to implement them. Congressional rail safety mandates that were previously implemented or not yet due have been excluded from Exhibit A. Item Nos. 1 (EMERGENCY ESCAPE BREATHING APPARATUS), 2 (ALCOHOL AND CONTROLLED SUBSTANCE TESTING FOR MAINTENANCE-OF-WAY EMPLOYEES), 3 (DEVELOPMENT AND USE OF RAIL SAFETY TECHNOLOGY), 4 (TRACK INSPECTION TIME STUDY) 5 (MINIMUM TRAINING STANDARDS AND PLANS), 8 (RAILROAD SAFETY RISK REDUCTION), and 9 (SAFE RAIL TRANSPORT OF CERTAIN RADIOACTIVE MATERIALS) are unmet mandates that were listed in the December 2012 Report.¹

FRA is current in its obligations under Section 212 of the RSIA to establish a Northeast Corridor (NEC) Safety Committee (Committee) made up of members appointed by the Secretary of Transportation (Secretary). The Secretary must report to Congress at the beginning of the first session of each Congress on the status of efforts to improve safety and security on the NEC main line. The report must include the safety and security recommendations of the Committee and the comments of the Secretary on those recommendations. Last year, the Secretary submitted this report to Congress on 6/27/2013. Section 212 of the RSIA previously was listed as an unmet mandate in Exhibit A of the December 2012 Report; however, as it is an ongoing requirement, this mandate is no longer listed in Exhibit A.

FRA also is current in its obligations under Section 102 of the RSIA to develop a long-term strategy for improving railroad safety, assess the progress in achieving its strategic goals, and report that progress to the Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure at the same time as the President's budget submission. This mandate is therefore not listed in Exhibit A.

In addition, FRA has excluded from Exhibit A the ongoing congressional rail safety mandates that require FRA to take periodic action with no specific deadline. FRA has taken action to fulfill these mandates, recognizes the need to take additional periodic action in the future, and has a process in place to meet these mandates. FRA would be glad to report separately on the status of any congressional rail safety mandate not included in Exhibit A.

Discussion of Exhibit B: Open Rail Safety Recommendations by the National Transportation Safety Board (NTSB) to the Federal Railroad Administration (FRA)

Exhibit B is a list of the 53 NTSB rail safety recommendations to FRA that were open as of December 31, 2013, and FRA's actions to address them. Over the last several years, the NTSB has accepted this report as the main source of updates on open recommendations. Over the last

¹ Item No. 4 (TRACK INSPECTION TIME STUDY) in Exhibit A was completed on January 24, 2014. This mandate became due following the December 2012 Report. However, because it was completed after December 31, 2013, FRA kept it in Exhibit A.

year, however, FRA has worked to improve its processes and procedures to communicate its plans for addressing NTSB recommendations in a more timely manner. Going forward, FRA intends to provide the NTSB with more regular and ongoing updates on open NTSB recommendations. FRA believes that increasing the level of communication with the NTSB in this manner will more clearly demonstrate to the NTSB the extent and rationale for FRA's particular responses to the NTSB recommendations.

In addition, FRA has enhanced its centralized process for tracking each rail safety recommendation through the use of Microsoft SharePoint by establishing the NTSB Recommendation Tracking System, and FRA would be glad to provide additional information on this tracking system. FRA has also committed to ensuring that NTSB receives an initial response to each recommendation within 90 days of issuance. FRA's practice is to submit a tentative implementation schedule as part of that initial response for each rail safety recommendation that needs to be implemented, and periodically update the implementation schedule.

Of the 45 recommendations listed in the December 2012 Report, NTSB has closed the following safety recommendation numbers (Rec. Nos.): R-02-24 through R-02-26, with the classification "Closed – Unacceptable Action Superseded"; R-06-10, with the classification "Closed – Unacceptable Action"; R-12-04, with the classification "Closed – Acceptable Action"; R-12-28 and R-12-29, with the classification "Closed – Reconsidered." These recommendations are therefore not listed in Exhibit B.

The NTSB also closed R-13-03 and R-13-04, with the classification "Closed – Acceptable Action" and "Closed – Acceptable Alternate Action," respectively. The NTSB issued these recommendations on March 8, 2013, following the December 2012 Report. The NTSB, in R-13-03 and R-13-04, recommended that FRA issue a safety advisory reminding railroads of the circumstances involved in certain accidents and highlighting the importance of using best practices when using jumper wires. In addition, the NTSB recommended that FRA audit all railroads regarding the adoption of the best industry practices from the safety advisory. Because the NTSB closed these recommendations, they are not included in Exhibit B.

Open – Acceptable Response

Item Nos. 1 through 6, corresponding to NTSB Rec. Nos. R-13-08, R-13-07, R-12-43, R-12-42, R-12-40, and R-12-39, are classified as "Open – Acceptable Response" and were issued after the December 2012 Report.

Item Nos. 7 through 8, corresponding to NTSB Rec. Nos. R-12-38 and R-12-37, were reclassified as "Acceptable Response" following the December 2012 Report.

Item Nos. 9 through 32, corresponding to NTSB Rec. Nos. R-12-21, R-12-19, R-12-18, R-12-16, R-12-03, R-09-03 through R-09-01, R-08-11 through R-08-09, R-08-07 through R-08-05,

R-06-07, R-05-09, R-04-07, R-01-17, R-01-02, and R-00-04 through R-00-01, remain classified as “Open – Acceptable Response,” as in the December 2012 Report.²

Open – Unacceptable Response

Item Nos. 33 through 35, corresponding to NTSB Rec. Nos. R-13-06, R-13-05, and R-12-41, are classified as “Open – Unacceptable Response” and were issued after the December 2012 Report.

Item Nos. 36 through 41, corresponding to NTSB Rec. Nos. R-12-27, R-12-22, R-12-20, R-12-17, R-10-02, and R-10-01, were reclassified as “Open – Unacceptable Response” following the December 2012 Report.

Item Nos. 42 through 47, corresponding to NTSB Rec. Nos. R-08-12, R-07-02, R-04-01, R-02-05, R-97-17, and R-97-15, remain classified as “Open – Unacceptable Response,” as in the December 2012 Report.³

Open – Await Response

Item Nos. 48 through 53, corresponding to NTSB Rec. Nos. R-13-23 through R-13-18, are classified as “Open – Await Response” and were issued after the December 2012 Report.

FRA has an ongoing dialogue with the NTSB to further the favorable closure of each open rail safety recommendation.

Discussion of Exhibit C: Open Rail Safety Recommendations by the U.S. Department of Transportation’s Office of Inspector General (OIG)

Exhibit C contains four open rail safety recommendations by the Department’s OIG that were open as of December 31, 2013, and FRA’s actions to address them. All four recommendations were issued following the December 2012 Report.

The OIG issued these four recommendations as part of its Report No. CR-2013-070 titled “*FRA Is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight*” that was issued on April 17, 2013. The report contained six recommendations involving the OIG’s assessment of FRA’s regulatory and enforcement

² In a letter dated January 15, 2014, the NTSB notified FRA that it reclassified Item Nos. 14, 17, 19, 20, 22, 23, 25, 26, 27, and 29 through 32 in Exhibit B, corresponding to NTSB Rec. Nos. R-09-03, R-08-11, R-08-09, R-08-07, R-08-05, R-06-07, R-05-09, R-04-07, R-01-17, and R-00-04 through R-00-01, as “Open – Unacceptable.” Because these were reclassified following December 31, 2013, FRA kept these recommendations as “Open – Acceptable” in Exhibit B.

³ On January 15, 2014, the NTSB notified FRA that it closed R-97-17 and R-97-15 with the classification “Closed – Acceptable Action.” Because these were closed following December 31, 2013, FRA kept these recommendations in Exhibit B. See Item Nos. 46 and 47 in Exhibit B.

programs related to the implementation of the RSIA. The OIG closed Rec. Nos. 3 and 5 prior to December 31, 2013, and therefore those recommendations are not addressed in Exhibit C. The full report is available on the OIG's Web site at www.oig.dot.gov.

Conclusion

The U.S. Department of Transportation recognizes the significance of each unmet statutory mandate and open recommendation of the NTSB and the OIG regarding rail safety. FRA has focused its efforts on implementing each unmet mandate and addressing each open recommendation in a timely manner to the extent practicable. We would be glad to provide any additional information on FRA's progress in doing so and on the status of any mandate or recommendation.

EXHIBIT A: UNMET CONGRESSIONAL RAIL SAFETY MANDATES (AS OF DECEMBER 31, 2013)

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
1	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 413 (EMERGENCY ESCAPE BREATHING APPARATUS) Amended 49 U.S.C. by adding new Section 20166	“Not later than 18 months after the date of enactment of the Rail Safety Improvement Act of 2008, the Secretary of Transportation shall prescribe regulations that require railroad carriers—(1) to provide emergency escape breathing apparatus suitable to provide head and neck coverage with respiratory protection for all crewmembers in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of release; (2) to provide convenient storage in each freight train locomotive to enable crewmembers to access such apparatus quickly; (3) to maintain such equipment in proper working condition; and (4) to provide their crewmembers with appropriate training for using the breathing apparatus.”	In March 2009, the Federal Railroad Administration (FRA) completed a contract study to determine the feasibility of providing appropriate breathing apparatus capable of protecting crewmembers from the chemicals that may pose inhalation hazards. The study, which was initiated prior to the enactment of the Rail Safety Improvement Act of 2008 (RSIA), reviewed the types of emergency escape breathing apparatus (EEBA) available, how the EEBA should be assigned, what training would be necessary for safe use of the EEBA, and the cost of instituting an EEBA program. The study is available on FRA’s Web site at www.fra.dot.gov/eLib/Details/L02784 . FRA used information contained in the study as well as information gained from consultations with the railroad industry and railroad labor organizations to publish a Notice of Proposed Rulemaking (NPRM) on October 5, 2010. 75 Fed. Reg. 61386. The Office of Management and Budget (OMB) designated this rulemaking as significant. FRA recently received additional comments on the NPRM and is considering them. FRA expects to publish the final rule in 2014.	Issue final rule.

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2	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 412 (ALCOHOL AND CONTROLLED SUBSTANCE TESTING FOR MAINTENANCE-OF-WAY EMPLOYEES)	"Not later than 2 years following the date of enactment of this Act, the Secretary of Transportation shall complete a rulemaking proceeding to revise the regulations prescribed under Section 20140 of Title 49, United States Code, to cover all employees of railroad carriers and contractors or subcontractors to railroad carriers who perform maintenance-of-way activities."	FRA is preparing an NPRM that would fulfill this mandate. Publication is expected by spring 2014.	Issue regulations as necessary.

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
3	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 406 (DEVELOPMENT AND USE OF RAIL SAFETY TECHNOLOGY) Amended 49 U.S.C. by adding new Section 20164	“(a) IN GENERAL.—Not later than 1 year after enactment of the [Rail] Safety [Improvement] Act of 2008, the Secretary of Transportation shall prescribe standards, guidance, regulations, or orders governing the development, use, and implementation of rail safety technology in dark territory, in arrangements not defined in Section 20501 or otherwise not covered by Federal standards, guidance, regulations, or orders that ensure the safe operation of such technology, such as—(1) switch position monitoring devices or indicators; (2) radio, remote control, or other power-assisted switches; (3) hot box, high water, or earthquake detectors; (4) remote control locomotive zone limiting devices; (5) slide fences; (6) grade crossing video monitors; (7) track integrity warning systems; or (8) other similar rail safety technologies, as determined by the Secretary.”	On September 23, 2010, the RSAC accepted the task to provide advice regarding development of standards, guidance, regulations, or orders governing the development, use, and implementation of rail safety technology in dark territory. The Dark Territory Working Group was formed with the approval of the RSAC in December 2010. The working group held four meetings between March 2011 and November 2011. As a result of these meetings, the working group developed a document that proposed that railroads create individual plans to govern the maintenance, inspection, and testing of certain safety devices that are currently in use in dark territory. However, the working group could not reach consensus on whether this document should be used as the basis for developing regulatory requirements. Due to this disagreement, working group activity was suspended. Several members of the RSAC working group involved with the safety risk reduction rulemaking under Section 103 of the RSIA noted that the technology safety plan component of that rulemaking could address the development, use, and implementation of rail safety technology in dark territory. FRA agrees. Therefore, FRA intends to respond to this mandate through the issuance of the technology safety plan requirements contained in FRA’s Risk Reduction Program (RRP) and System Safety Program (SSP) rulemakings. FRA expects to publish the RRP NPRM and the SSP final rule in 2014.	Issue RRP NPRM and SSP final rule in 2014.
				Moreover, FRA prioritized the review of railroad plans and product safety submissions under the Positive Train Control (PTC) mandate of Section 104 and many dark-territory lines will be equipped with PTC, making the issue of lesser technology for many lines unnecessary.	

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4	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 403 (TRACK INSPECTION TIME STUDY) Amended 49 U.S.C. by adding Section 20163	<p>“(a) STUDY. – Not later than 2 years after the date of enactment of this Act, the Secretary shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report containing the results of a study to determine whether –</p> <ol style="list-style-type: none"> (1) The required intervals of track inspections for each class of track should be amended; (2) Track remedial action requirements should be amended; (3) Different track inspection and repair priorities or methods should be required; and, (4) The speed at which railroad track inspections vehicles operate and the scope of the territory they generally cover allow for proper inspection of the track and whether such speed and appropriate scope should be regulated by the Secretary. <p>“(c) UPDATE OF REGULATIONS. – Not later than 2 years after the completion of the study required by subsection (a), the Secretary shall prescribe regulations based on the results of the study conducted under subsection (a).”</p>	<p>The study was completed and presented to Congress on May 2, 2011.</p> <p>On August 16, 2011, the RSAC accepted RSAC Task 11-02, which was generated in response to the RSIA and to address the recommendations of the study. After several meetings, the Association of American Railroads (AAR), together with the Brotherhood of Maintenance of Way Employees Division (BMWED), proposed that FRA had met its obligations under Section 403(c) of the RSIA through its rulemakings on vehicle/track interaction (VTI), concrete crossties (published as a final rule on April 1, 2011. 76 Fed. Reg. 18073), and the proposals contained in FRA’s NPRM on improving rail integrity (later published on October 19, 2012. 77 Fed. Reg. 64249). They also stated that additional action on RSAC Task 11-02 was unnecessary and recommended that the task should be closed. FRA took AAR and BMWED’s proposal under advisement and conducted its own analysis on the fulfillment of the mandates under Section 403. FRA concluded that these statutory obligations were being fulfilled, and on April 13, 2012, the RSAC working group approved a proposal to conclude RSAC Task 11-02. On April 26, 2012, the RSAC concluded that FRA’s rulemakings were sufficiently addressing the statutorily mandated topics and that no additional work by the RSAC was necessary. The full RSAC approved the proposal and closed RSAC Task 11-02. The VTI final rule was subsequently published on March 13, 2013. 78 Fed. Reg. 16051. [The final rule on improving rail integrity was published on January 24, 2014. 79 FR 4234.]</p>	Done.

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
5	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 401 (MINIMUM TRAINING STANDARDS AND PLANS) Amended 49 U.S.C. by adding Section 20162	<p>Unmet Statutory Mandate</p> <p>“(a) IN GENERAL.—The Secretary of Transportation shall, not later than 1 year after the date of enactment of the Rail Safety Improvement Act of 2008, establish—</p> <p>(1) minimum training standards for each class and craft of safety-related railroad employee (as defined in Section 20102) and equivalent railroad carrier contractor and subcontractor employees, which shall require railroad carriers, contractors, and subcontractors to qualify or otherwise document the proficiency of such employees in each such class and craft regarding their knowledge of, and ability to comply with, Federal railroad safety laws and regulations and railroad carrier rules and procedures promulgated to implement those Federal railroad safety laws and regulations; (2) a requirement that railroad carriers, contractors, and subcontractors develop and submit training and qualification plans to the Secretary for approval, including training programs and information deemed necessary by the Secretary to ensure that all safety-related railroad employees receive appropriate training in a timely manner; and (3) a minimum training curriculum, and ongoing training criteria, testing, and skills evaluation measures to ensure that safety-related railroad employees, and contractor and subcontractor employees, charged with the inspection of track or railroad equipment are qualified to assess railroad compliance with Federal standards to identify defective conditions and initiate immediate remedial action to correct critical safety defects that are known to contribute to derailments, accidents, incidents, or injuries, and, in implementing the requirements of this paragraph, take into consideration existing training programs of railroad carriers.”</p>	<p>Actions Taken by FRA</p> <p>FRA informed Congress by letter on January 16, 2009, that FRA would not meet the statute’s 12-month timetable. FRA noted that it already had in place significant training requirements for a variety of subjects, and it regularly included training elements in each of the new and revised regulatory programs that FRA issued in recent years. Nevertheless, given the number of technical disciplines represented on the railroad properties and the breadth of the knowledge, skills, and abilities required to execute the tasks that they are required to accomplish safely, this provision requires an extensive effort.</p> <p>On February 11, 2010, the RSAC accepted the task of assisting FRA in developing recommendations for minimum training standards and plans through the Training Standards Working Group. On December 14, 2010, the RSAC approved the working group’s recommendations to draft an NPRM addressing the statutory requirements. An NPRM was published on February 7, 2012, with public comments due by April 9, 2012. 77 Fed. Reg. 6412. On May 8, 2012, FRA held a meeting with the working group to discuss the written comments received. As of December 31, 2013, a draft final rule in this significant rulemaking is under Executive Order 12866 review.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Issue the final rule.</p>

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
6	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 110 (PILOT PROJECTS) Amended 49 U.S.C. by adding new Section 21108	<p>“(a) IN GENERAL. – As of the date of enactment of the Rail Safety Improvement Act of 2008, a railroad carrier or railroad carriers and all nonprofit employee labor organizations representing any class or craft of directly affected covered service employees of the railroad carrier or railroad carriers, may jointly petition the Secretary of Transportation for approval of –</p> <p>(1) A waiver of compliance with this chapter as in effect on the date of enactment of the Rail Safety Improvement Act of 2008; or</p> <p>(2) A waiver of compliance with this chapter as it will be effective 9 months after the enactment of the Rail Safety Improvement Act of 2008,</p> <p>to enable the establishment of one or more pilot projects to demonstrate the possible benefits of implementing alternatives to the strict application of the requirements of this chapter, including requirements concerning maximum on-duty and minimum off-duty periods.”</p> <p>“(d) REPORT. – The Secretary of Transportation shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives, no later than December 31, 2012, or, if no projects are completed prior to December 31, 2012, no later than 6 months after the completion of a pilot project, a report that –</p> <p>(1) Explains and analyzes the effectiveness of any pilot project established pursuant to a waiver granted under subsection (a);</p> <p>(2) Describe the status of all other waivers granted under subsection (a) and their related pilot projects, if any; and</p> <p>(3) Recommends any appropriate legislative changes to this chapter.</p>	<p>Representatives of eight freight railroads¹ (collectively, CN) petitioned, with the consent of their directly affected train employees, for a waiver of Title 49 United States Code (U.S.C.) § 21103(a)(1), which limits a train employee to 276 hours of mandatory service for its employing railroad in a calendar month. Cargill, Incorporated, GOSCNA (Cargill) petitioned separately, with the consent of its directly affected train employees, for a waiver of the same section. Both CN and Cargill requested to conduct a pilot project that would allow them to split their train employees into two groups, with half of the employees having their 276-hour limitation calculated from the beginning to the end of the calendar month, while the other half of the employees had the monthly limitation calculated from the 15th day of the calendar month to the 14th day of the following calendar month. This would help to prevent the possibility of running out of employees who legally have time remaining to work at the end of the month.</p> <p>Because both CN’s and Cargill’s petitions involved the same provision of the hours of service laws (HSL) and the same type of proposed pilot project, FRA treated them as a single two-part project. Each waiver was granted for 2 years, and neither CN nor Cargill requested renewal of its waiver to continue its pilot project. The second part of the project ended March 25, 2013, so the report was due within 6 months of that date, or September 25, 2013. A draft report is currently under review.</p>	Finalize and submit report.

¹ The petition sought to cover eight railroads, whose legal names are as follows: Illinois Central Railroad Company; Chicago, Central and Pacific Railroad Company; Elgin, Joliet & Eastern Railway Company; Wisconsin Central Ltd.; Duluth, Missabe and Iron Range Railway Company; Duluth, Winnipeg and Pacific Railway Company; Bessemer and Lake Erie Railway Company; and Cedar River Railroad Company. These eight railroads operate in the United States and are wholly owned by Grand Trunk Corporation, a holding company owned by CN. These companies do business in the United States as CN.

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7	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 108 (HOURS OF SERVICE REGULATORY AUTHORITY) Amended 49 U.S.C. by adding new Section 21109	“(e) PILOT PROJECTS.—(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Rail Safety Improvement Act of 2008, the Secretary shall conduct at least 2 pilot projects of sufficient size and scope to analyze specific practices which may be used to reduce fatigue for train and engine and other railroad employees as follows: (A) A pilot project at a railroad or railroad facility to evaluate the efficacy of communicating to employees notice of their assigned shift time 10 hours prior to the beginning of their assigned shift as a method for reducing employee fatigue. (B) A pilot project at a railroad or railroad facility to evaluate the efficacy of requiring railroads who use employee scheduling practices that subject employees to periods of unscheduled duty calls to assign employees to defined or specific unscheduled call shifts that are followed by shifts not subject to call, as a method for reducing employee fatigue.”	To successfully fulfill this mandate, FRA must first receive requests from railroads and rail labor organizations to participate in the pilot projects. FRA has not yet received any requests but continues to encourage affected parties to use this option. Because of the lack of interest in developing the pilot projects, FRA started the process of developing plans for pilot projects that can be expected to address fatigue issues in the freight railroad industry. The intent is to present pilot projects proposed by FRA to freight railroads and labor unions and to work with them on implementing these pilot projects. If the railroads and labor unions agree to conduct a pilot project, and FRA provides waivers from the requirements of the HSL when necessary, an analysis of safety data will be performed to determine the effectiveness of those pilot projects. If FRA determines, using a risk assessment process, that a pilot project has had a positive impact on safety, this information may be used to encourage railroads to incorporate similar arrangements at locations that appear to be at risk for fatigue. The information gained from these pilot projects, if implemented, and relevant waivers from the provisions of the HSL, will also be shared with Congress as appropriate. Should FRA gain participants in a pilot project, several years will be needed to accumulate relevant data. The earliest that FRA could begin the required analysis would be at least 2 years from the initiation of such a pilot project, and the earliest possible date for completion of such analysis would be 2016.	Continue efforts to encourage affected parties to participate in the pilot projects.

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
8	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 103 (RAILROAD SAFETY RISK REDUCTION) Amended 49 U.S.C. by adding new Section 20156	<p>Unmet Statutory Mandate</p> <p>“(a) IN GENERAL.—(1) PROGRAM REQUIREMENT.—Not later than 4 years after the date of enactment of the Rail Safety Improvement Act of 2008, the Secretary of Transportation, by regulation, shall require each railroad carrier that is a Class I railroad, a railroad carrier that has inadequate safety performance (as determined by the Secretary), or a railroad carrier that provides intercity rail passenger or commuter rail passenger transportation — (A) to develop a railroad safety risk reduction program under subsection (d) that systematically evaluates railroad safety risks on its system and manages those risks in order to reduce the numbers and rates of railroad accidents, incidents, injuries, and fatalities; (B) to submit its program, including any required plans, to the Secretary for review and approval; and (C) to implement the program and plans approved by the Secretary.”</p>	<p>Actions Taken by FRA</p> <p>Three rulemakings are being conducted to meet this mandate. The SSP rulemaking will satisfy the mandate for passenger railroads, and the RRP rulemaking will satisfy the mandate for Class I railroads and railroads with inadequate safety records. FRA’s Railroad Safety Advisory Committee (RSAC) created a Task Statement for Fatigue Management Plans (FMP), and a working group assisted FRA in developing rule text that will form the basis for regulations related to the FMPs required under RSIA Section 103.</p> <p>An Advance Notice of Proposed Rulemaking (ANPRM) addressing RRP was published in the Federal Register on December 8, 2010. 75 Fed. Reg. 76345. Two public hearings were held in July 2011. FRA’s RSAC assisted in drafting an NPRM regarding covered freight railroads. The NPRM currently is in the clearance process.</p> <p>An NPRM addressing SSP was published on September 7, 2012, with public comments due by November 6, 2012. 77 Fed. Reg. 55372. FRA reopened the comment period until December 7, 2012. 77 Fed. Reg. 70409. FRA received 19 comments from the public regarding the NPRM and started drafting the final rule.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Issue an NPRM and final rule for the RRP rulemaking.</p> <p>Issue the final rule for the SSP rulemaking.</p> <p>Issue an NPRM and final rule for the FMPs.</p>

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
9	Hazardous Materials Transportation Uniform Safety Act of 1990, Pub. L. No. 101-615, November 16, 1990.	Section 15 Amended Section 116(b) of the Hazardous Materials Transportation Act (then Title 49 U.S.C. App. 1813); provision now codified at 49 U.S.C. § 5105(c)	“(b) SAFE RAIL TRANSPORT OF CERTAIN RADIOACTIVE MATERIALS - Within 24 months after the date of enactment of this section taking into consideration the findings of the study conducted pursuant to subsection (a), the Secretary shall amend existing regulations as the Secretary deems appropriate to provide for the safe transportation by rail of high-level radioactive waste and spent nuclear fuel by various methods of rail transportation, including by dedicated train.”	<p>FRA’s final report required by Section (a) was delivered to Congress on September 27, 2005. This section of the mandate is complete; however, the mandate will not be closed until Section (b) is completed.</p> <p>Since the completion of the required study, the expected increase in rail shipments of spent nuclear fuel and high-level radioactive waste anticipated by this mandate has not occurred and, based on all information available to FRA, the agency has determined that any potential increase in movements by rail will not occur before 2021, at the earliest. Meanwhile, through FRA’s comprehensive rail safety regulatory program, as well as FRA’s research and development program, advances in rail safety are being made that are directly relevant to this mandate (e.g., implementation of PTC technology and the anticipated finalization of risk reduction and system safety regulations). These regulations, together with the routing requirements of PHMSA’s hazardous materials regulations promulgated since enactment of this statutory mandate, will impact what future regulatory requirements are necessary to respond to this mandate. Given this continually evolving regulatory and technological framework and the anticipated timeframe for any potential increase in movements by rail, FRA placed this NPRM on hold until progress has been made in identifying a location to which the material will be transported for either temporary or permanent storage. FRA will continue, however, to coordinate with the parties involved in the transportation planning process and will monitor the status of the selection of a location to store this material.</p> <p>As planning among involved parties progresses, FRA will reevaluate the issue with the intent of proceeding with the rulemaking process as appropriate prior to 2021.</p>	Prepare an NPRM and final rule, based on results of research and review, as the Secretary deems appropriate.

EXHIBIT B: OPEN RAIL SAFETY RECOMMENDATIONS BY THE NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) TO THE FEDERAL RAILROAD ADMINISTRATION (FRA)¹ (AS OF DECEMBER 31, 2013)

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
1	3/8/2013	R-13-08	<p align="center">Open NTSB Recommendation</p> <p>Conduct an audit of the Canadian National Railway's (CN) North Division program of operational tests and inspections to evaluate their effectiveness for promoting knowledge and compliance with rules regarding the execution of track authorities and the appropriate use of portable electronic devices.</p>	<p>Open – Acceptable Response. In November 2013, FRA regional staff conducted a multifaceted audit of CN's Program of Operational Testing. This audit was based in Steven's Point, Wisconsin, and focused on CN's North Division. As recommended by the NTSB, FRA's audit included analysis of CN testing efforts related to the use of mandatory directives and the use of electronic devices by railroad operating employees. FRA inspectors also observed CN managers conducting operational tests at various locations within the North Division and at the company's dispatch center in Homewood, Illinois. FRA has completed its audit and is preparing the report. The results of this audit will be made available to the NTSB during the first quarter of 2014.</p>	Distribute report.

¹ NTSB recommendations are listed in the following order by NTSB classification: Item Nos. 1 through 32, "Open – Acceptable Response"; Item Nos. 33 through 47, "Open – Unacceptable Response"; and Item Nos. 48 through 53, "Open – Await Response." Within each NTSB classification, NTSB recommendations are listed in chronological order by the date of issuance of the recommendation with the most recent listed first, and within the same date of issuance, by the number of the recommendation.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
2	3/8/2013	R-13-07	<p>Open NTSB Recommendation</p> <p>Require railroads to implement initial and recurrent crew resource management training for train crews.</p>	<p>Open – <u>Acceptable Response</u>. FRA agrees that crew resource management (CRM) training programs are effective in reducing accidents and incidents attributed to human error. FRA undertook numerous efforts to identify, develop, and pilot CRM training programs. FRA partnered with the Texas Transportation Institute to develop a pilot CRM program that could be used by all interested railroads. A summary report and technical brief detailing that effort were released in 2007. Pilot training materials that were developed as part of this effort are available at: http://fti.tamu.edu/group/rail/crew-resource-management-crm-training-for-the-railroad-industry/. FRA also conducted a survey of available railroad CRM training methods and published a report of those findings. A report detailing the benefits of CRM training was released in 2007. In addition, FRA awarded grants for both passenger and freight rail operations to assist in the development of CRM training programs. FRA will continue to encourage railroads to voluntarily develop CRM training programs, but believes that the best regulatory approach is to encourage railroads to include CRM training, as appropriate, in their RRRPs mandated by the RSIA. This will enable railroads to tailor their approach to fit their operational circumstances, which FRA believes is the best way to ensure strong safety improvements.</p>	<p>Continue to encourage railroads to voluntarily develop CRM training programs.</p>
3	1/28/2013	R-12-43	<p>Work with the Federal Highway Administration to update its website on annual reporting requirements for railway-highway crossings, to include comprehensive information on the individual grade crossing action plans developed by the states pursuant to 49 Code of Federal Regulations 234.11, “State Highway-Rail Grade Crossing Action Plans.”</p>	<p>Open – <u>Acceptable Response</u>. The Federal Highway Administration (FHWA) Web site for railway-highway crossings reporting requirements was updated in February 2013. FRA has provided copies of nine approved State Action Plans to FHWA for posting on the updated FHWA Web site.</p>	<p>Provide technical support as needed.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
4	1/28/2013	R-12-42	<p>Work with the Federal Highway Administration to develop a model grade crossing action plan that can be used as a resource document by all states. At a minimum, such a document should incorporate information from US Department of Transportation publications, industry studies, and the American Association of State Highway and Transportation Officials, as well as the best practices and lessons learned at the conclusion of the 5-year grade crossing action plans developed in response to 49 Code of Federal Regulations 234.11, "State Highway-Rail Grade Crossing Action Plans."</p>	<p><u>Open – Acceptable Response.</u> FRA is developing draft action plan metric requirements to share with FHWA for review and comment. In December 2013, FRA prepared a draft outline of a model action plan, which was provided to FHWA to facilitate further discussion and collaboration.</p>	<p>Provide technical support as needed.</p>
5	1/28/2013	R-12-40	<p>Once the side impact crashworthiness standards are developed in Safety Recommendation R-12-39, revise 49 Code of Federal Regulations 238.217, "Side Structure," to require that new passenger railcars be built to these standards.</p>	<p><u>Open – Acceptable Response.</u> See R-12-39.</p>	<p>Complete research. Revise regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
6	1/28/2013	R-12-39	<p>Develop side impact crashworthiness standards (including performance validation) for passenger railcars that provide a measurable improvement compared to the current regulation for minimizing encroachment to and loss of railcar occupant survival space.</p>	<p>Open – Acceptable Response. The risk of a heavy highway vehicle striking a train is documented, and served as a basis for FRA’s issuance of Title 49 Code of Federal Regulations (CFR) Section 238.217, Side structure, as part of its original Passenger Equipment Safety Standards regulations (see 64 Fed. Reg. 25540 (May 12, 1999)). Since then, equipment compliant with FRA’s side structure regulation has proved to perform well in different collisions.</p> <p>FRA is updating passenger equipment crashworthiness and other performance regulations with the assistance of the Engineering Task Force (ETF) of the RSAC Passenger Safety Working Group (PSWG). The ETF includes representatives from all of the agency’s major stakeholders, including railroads, rail labor organizations, and rail suppliers. The ETF is developing recommendations for crashworthiness requirements that rely on computer simulations and destructive component tests, as well as nondestructive car body tests. Traditional passenger rail equipment crashworthiness requirements rely on manual calculations and nondestructive car body tests. This update is expected to result in new regulations that are at least as safe as the current regulations, are less expensive to implement, and have two applications: trains running up to 125 mph in a shared right-of-way (Tier I), and over 125 mph up to 220 mph (new Tier III) in an exclusive right-of-way. In this regard, the ETF has supported applying FRA’s current side structure requirements to both tiers of operations.</p> <p>FRA is also considering conducting new research to determine the types and frequency of side impacts into passenger rail equipment. This research would focus on accidents that have occurred in the last 10 years and investigate alternatives to the current side structure requirements. The current side structure regulation for Tier I passenger equipment is essentially stiffness based. Potentially, side structure requirements that are based on performance under prescribed impact conditions may be equally or more effective in preserving occupied volume in the likely range of accident conditions, while being less expensive for the industry to implement. FRA therefore requests that these actions be considered an acceptable response to the recommendations.</p>	<p>Conduct research as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	Actions Needed to Be Taken by FRA
7	11/28/2012	R-12-38	<p>Open NTSB Recommendation Audit the inspection and enforcement program in all regions for compliance with statutes and regulations related to railroad safety, and correct any deficiencies as required by 49 CFR Part 209.</p>	<p>NTSB Classification and Actions Taken by FRA Open – Acceptable Response. FRA assigned a headquarters employee to do a series of regional audits in 2004 and 2005. All regional offices were visited. The purpose of the audits was to determine the best practices employed in each region and to distribute them to all regional staff. Regional Administrators (RA), Deputy Regional Administrators (DRA), discipline specialists, and inspectors were interviewed and their input was solicited. Regional records were reviewed. At the conclusion of each audit, a closeout meeting was held with the RA and available DRAs. Reports of audit findings were prepared and forwarded to Office of Railroad Safety (RRS) senior management.</p> <p>The 2-year project resulted in the design for the National Safety Program Plan (NSPP) in late 2005, with the completion of the first NSPP in 2006. The NSPP is RRS's annual document designed to ensure the sound implementation of the National Safety Program, including identification of both recurring and nonrecurring special-emphasis activities for the year. The NSPP provides a mechanism for planning recurring activities (e.g., dispatch-center assessments performed triennially on a rotating basis). At the national level, it identifies emphasis areas based on data analyses, including interregional initiatives directed at particular system-level issues of concern for major railroads operating in multiple regions. RRS continues to make fundamental changes to its safety goal-setting, planning, and prioritization process.</p> <p>The NSPP is issued to every employee in RRS. Employees are advised that quarterly assessments of all regional, Railroad System Oversight Manager, and FRA headquarters' initiatives will occur. Each assessment is due 30 days after the end of each quarter for each project. In addition, the Associate Administrator for Railroad Safety/Chief Safety Officer and Deputy Associate Administrator for Safety Assurance and Compliance meet with the RAs and RRS managers to discuss the quarterly status submissions.</p> <p>The NSPP has resulted in an integrated planning process that includes better safety analysis and focus throughout RRS on the most serious safety concerns—in essence, a prioritization of safety needs, methods to address and correct them, and a quarterly schedule for doing so. Given the limited resources of FRA and the number and importance of safety issues in which the agency is involved, prioritization and clear focus are essential to maximizing effectiveness.</p> <p>An element included in the NSPP is the National Inspection Plan (NIP), which establishes quantitative objectives for inspection of major railroads, by State, based on analysis of available data pertinent to risk. The NIP improves resource allocation and provides better document decisions based on data and qualitative judgments.</p> <p>FRA also conducted a series of audits in 2013 and is reviewing the findings.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
8	11/28/2012	R-12-37	<p>Open NTSB Recommendation Audit the waiver process to verify it is being managed as required by 49 CFR Part 211.</p>	<p>NTSB Classification and Actions Taken by FRA Open – Acceptable Response. FRA recognizes the value of a well-managed waiver process that meets Federal regulations. FRA has a standard operating practice for processing waivers from initial receipt from the submitter to disposition and filing of FRA’s response. This procedure is closely adhered to in all instances and includes a 39-point checklist and an electronic processing system to further ensure reliability. FRA transitioned from a manual waiver processing system after the Port Authority Trans-Hudson Corporation waiver request of 1994 that prompted this recommendation. FRA’s electronic system has successfully been in place for several years now. In 2006, a third-party review of the Railroad Safety Board, including the waiver process, was conducted to improve the effectiveness and efficiency of the Board. In response to the findings, documentation of the entire waiver process was reviewed and rewritten, and the electronic waiver system was enhanced to allow inspectors to access waiver information without the need to be on the FRA network. Today, weekly reports from the system are used to track progress. Nevertheless, to ensure the waiver process continues to function as intended and to identify any additional opportunities for improvement, FRA conducted a self-audit of the waiver process per the NTSB’s recommendation.</p>	<p>Actions Needed to Be Taken by FRA Finalize report.</p>

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9	5/10/2012	R-12-21	<p>Open NTSB Recommendation</p> <p>Revise 49 CFR Part 229 to ensure the protection of the occupants of isolated locomotive operating cabs in the event of a collision. Make the revision applicable to all locomotives, including the existing fleet and those newly constructed, rebuilt, refurbished, and overhauled, unless the cab will never be occupied.</p>	<p>Open – <u>Acceptable Response</u>. The locomotive involved in the Red Oak, Iowa, collision, from which this recommendation arose, was constructed to meet crashworthiness requirements that had been published but were not yet in effect at the time. The anti-climber and the collision posts gave the same protection to the isolated cab as they would to a nonisolated cab, as neither has any crashworthiness requirement that applies above the top of the collision posts. Given the unusual nature of the equipment impacted, this collision scenario was not a focus in the development of the regulations. FRA is in discussion with the John A. Volpe National Transportation Systems Center (Volpe Center) to determine what further areas of crashworthiness research should be pursued to enhance overall locomotive crashworthiness.</p> <p>FRA requested that the NTSB close this recommendation on July 31, 2012.</p>	<p>Continue research.</p>
10	5/10/2012	R-12-19	<p>Require the implementation of methods that can identify fatigue and mitigate performance decrements associated with fatigue in on-duty train crews that are identified or developed in response to Safety Recommendation R-12-18.</p>	<p>Open – <u>Acceptable Response</u>. The RSIA requires an implementation plan as part of an FMP. Currently FRA, in conjunction with an RSAC working group, is developing guidance for the creation of a Fatigue Risk Management System (FRMS) implementation plan. The RSAC developed potential language to address issues associated with this recommendation; the language includes the following: (1) mapping of existing and future processes, (2) determining any organizational change (e.g., reporting relationships) that may be induced or required by the system, (3) developing a communications plan, (4) creating a fatigue training and education plan, (5) identifying key people whose participation will ensure success, (6) building consensus and coalitions, (7) identifying facilitators and inhibitors to successful implementation, (8) monitoring and evaluating the FRMS, and (9) creating an evaluation and feedback mechanism.</p>	<p>Issue guidance documents as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
11	5/10/2012	R-12-18	Conduct research on new and existing methods that can identify fatigue and mitigate performance decrements associated with fatigue in on-duty train crews.	<u>Open – Acceptable Response.</u> See FRA’s response to R-12-17 regarding FRA’s anticipated pilot projects.	Continue research.
12	5/10/2012	R-12-16	Require railroads to medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders.	<u>Open – Acceptable Response.</u> The RSIA requires, under Section 103, that certain railroads develop an RRP. 49 U.S.C. § 20156. Section 103(d)(2) of the RSIA requires these railroads to include an FMP in their RRP that meets the requirements of 49 U.S.C. § 20156(f). 49 U.S.C. § 20156(d)(2). As part of the development of FMPs, the RSIA requires these railroads to consider whether to include as an element of their plans opportunities for the identification, diagnosis, and treatment of any medical condition that may affect alertness or fatigue, including sleep disorders. The RSIA also requires these railroads to consider including elements in their plans to provide employee education and training on the physiological and human factors that affect fatigue.	Issue regulations as necessary.
				The RSAC created a Task Statement for FMPs, and a working group assisted FRA in developing rule text that will form the basis for regulations that will be responsive to the requirements set forth in the RSIA.	

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
13	3/2/2012	R-12-03	<p>Require that safety management systems and the associated key principles (including top-down ownership and policies, analysis of operational incidents and accidents, hazard identification and risk management, prevention and mitigation programs, and continuous evaluation and improvement programs) be incorporated into railroads' RRRPs required by the RSIA.</p>	<p><u>Open – Acceptable Response.</u> FRA, in response to the RSIA, is developing two regulations with the assistance of the RSAC. One regulation would require certain passenger railroads to implement SSPs, and one would require certain freight railroads to implement RRRPs. An NPRM addressing SSP was published on September 7, 2012. 77 Fed. Reg. 55372. An ANPRM addressing RRRPs was published on December 8, 2010. 75 Fed. Reg. 76345. Both of these regulations would require railroads to establish a program consistent with the key principles of safety management systems in which railroads would systematically identify and evaluate railroad safety hazards on their systems and manage those hazards. In addition, the RSAC has created a Task Statement for FMPs, and a working group assisted FRA in developing rule text that will form the basis for regulations related to the FMPs required under RSIA Section 103. Results will be the reduction of railroad accidents, incidents, injuries, and fatalities.</p>	<p>Issue regulations as necessary.</p>
14	04/02/09	R-09-03	<p>NTSB recommended that FRA require that emergency exits on new and remanufactured locomotive cabs provide for rapid egress by cab occupants and rapid entry by emergency responders.</p>	<p><u>Open – Acceptable Response.</u> FRA shares the NTSB's concern that means of rapid egress and rescue access be provided for locomotive cabs. FRA regulations require that locomotives manufactured on or after January 1, 2009, provide for emergency egress. See 49 CFR § 229.206. FRA funded research on locomotive egress and crew rescue. In addition, FRA developed and disseminated a training video titled "Locomotive Emergency Response Operations," to local emergency responders throughout the country, and FRA is exploring additional educational opportunities.</p>	<p>Continue educational efforts.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
15	04/02/09	R-09-02	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA study the different signal systems for trains, identify ways to communicate more uniformly the meaning of signal aspects across all railroad territories, and require the railroads to implement as many uniform signal meanings as possible.</p>	<p>Open – <u>Acceptable Response</u>. See FRA’s response to R-09-01.</p> <p>FRA has developed a method for cataloguing occurrences when inconsistent signal aspects and indications are found and identified during regular inspections. Data collection on this issue is ongoing and, depending on the extent to which this issue exists in areas where it will not be addressed by other means (such as the implementation of PTC systems), FRA will review the captured information on a case-by-case basis and decide on next steps that may be necessary.</p>	<p>Continue efforts.</p>
16	04/02/09	R-09-01	<p>NTSB recommended that FRA establish uniform signal aspects that railroads must use to authorize a train to enter an occupied block, and prohibit the use of these aspects for any other signal indication.</p>	<p>Open – <u>Acceptable Response</u>. FRA is addressing this issue on a case-by-case basis wherever it may be found that a railroad is using more than one name and indication for a single aspect on a single line segment where crews would be subject to potential misunderstanding of the action to be taken. FRA also is addressing this issue on a case-by-case basis due to the potential significant cost associated with railroads bringing their wayside signal systems into compliance with a uniform set of FRA-established signal aspects and indications. This cost arises from the numerous railroad mergers and acquisitions that resulted in many former railroads now owned by a single, larger railroad.</p> <p>Where PTC is to be implemented, this condition will be relieved by the PTC onboard display indicating the correct action to be taken at each successive wayside signal location.</p>	<p>Continue efforts.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
17	05/22/08	R-08-11	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA require railroads use methods that accurately measure rail head wear to ensure that deformation of the head does not affect the accuracy of the measurements.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – <u>Acceptable Response</u>. Although sufficient studies are not available that would provide FRA with sufficient criteria to designate a critical rail head wear maximum for all rail sections used by railroads, the Rail Integrity Task Force has recommended requiring the rail flaw detector car operator to categorize the size of transverse-oriented defects to reflect the amount of rail head loss present in a rail specimen. Rail head wear is a crucial factor in the development of rail defects and rail service failure, and the task force has also reached consensus that it be used in determining performance-based testing intervals. An NPRM addressing these issues was issued in October 2012. See 77 Fed. Reg. 64249. [The final rule addressing these issues was issued on January 24, 2014. See 79 FR 4234.]</p> <p>FRA issued Safety Advisory 2012-04 on October 2, 2012. This safety advisory reminds track owners, railroads, and their track inspectors of the importance of complying with the applicable rail management programs and engineering procedures that address rail with severe rail head wear. Also, on September 27, 2012, the RSAC initiated a Rail Failure Working Group and, as part of its assignment, the group is to review and understand the effects of head wear on rail strength and structural integrity. The working group is ongoing.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Done.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
18	05/22/08	R-08-10	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA require railroads to develop rail inspection and maintenance programs based on damage-tolerance principles, and approve those programs, and 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. NTSB also recommended that each program take into account, at a minimum, accumulated tonnage, track support, residual stresses in the rail, rail defect growth rates, and temperature differentials.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – <u>Acceptable Response</u>. RSAC’s Rail Integrity Task Force was formed in 2007 to help provide a common understanding of the requirements for internal rail flaw inspections within the regulated community. Through this task force, FRA is gaining a more thorough understanding of rail inspection and maintenance programs. The task force has reached consensus on a model for performance-based testing intervals using failure and defect rates, annual tonnage, performance targets, and crack growth. The model was recommended by the Volpe Center. The task force has also examined issues concerning submission of internal flaw detection programs for FRA approval, annual updates to the program, and access to defect and failure data. An NPRM was issued in October 2012. See 77 Fed. Reg. 64249. [The final rule based on these recommendations was issued on January 24, 2014. See 79 FR 4234.]</p> <p>Knowledge gained from FRA’s continued involvement in these areas will be used to determine any future recommendations for improvement based on damage-tolerance principles. FRA also continues to fund research to enhance rail flaw detection technology.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
19	05/22/08	R-08-09	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA review all railroads' internal rail defect detection procedures and require changes to those procedures as necessary to eliminate exceptions to the requirement for an uninterrupted, continuous search for rail defects.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p><u>Open – Acceptable Response.</u> FRA has established the Rail and Infrastructure Integrity Division to review all railroads' internal rail defect detection procedures and recommend changes, as needed, to ensure that an uninterrupted, continuous search for rail flaws is conducted by the railroad. In addition, FRA has implemented a rail flaw detection vehicle inspection process as part of its NSPP.</p> <p>Moreover, the Rail Integrity Task Force, under the RSAC Track Safety Standards Working Group, has been charged with examining internal rail flaw inspection procedures and systems within the regulated community, identifying any deficiencies in the procedures or systems, and making necessary recommendations to address them. The task force believes that new technologies have been developed for improving rail flaw detection associated with rail surface conditions. The task force has reached consensus on a number of changes to FRA's rail inspection requirements, and an NPRM based on these recommendations was issued in October 2012. See 77 Fed. Reg. 64249. [The final rule based on these recommendations was issued on January 24, 2014. See 79 FR 4234.]</p>	Done.
20	04/10/08	R-08-07	<p>NTSB recommended that FRA revise the definition of "covered employee" under 49 CFR Part 219, for purposes of Congressionally mandated alcohol and controlled substances testing programs to encompass all employees and agents performing safety-sensitive functions as described in 49 CFR §§ 209.301 and 209.303.</p>	<p><u>Open – Acceptable Response.</u> Consistent with the statutory mandate of Section 412 of the RSIA, in the draft NPRM under development in response to that mandate, FRA is proposing to expand its alcohol and drug testing regulations to cover railroad employees and contractors who perform maintenance-of-way (MOW) activities.</p>	<p>Issue regulations as necessary.</p> <p>FRA continues to explore opportunities to enhance the effectiveness of its alcohol and drug program.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
21	04/10/08	R-08-06	NTSB recommended that FRA require redundant signal protection, such as shunting, for MOW work crews who depend on the train dispatcher to provide signal protection.	<u>Open – Acceptable Response.</u> An NPRM addressing this recommendation was published on August 20, 2012, 77 Fed. Reg. 50324. FRA has specifically invited comment on this issue from the railroad industry and other interested parties, to include potential costs of implementing various redundant measures. FRA is formulating a final rule.	Issue regulations as necessary.
22	04/10/08	R-08-05	NTSB recommended that FRA advise railroads of the need to examine their train dispatching systems and procedures to ensure that appropriate safety redundancies are in place for establishing protection and preventing undesired removal of protection for roadway workers receiving track occupancy authority.	<u>Open – Acceptable Response.</u> FRA included a reference to this objective in its PTC final rule issued on December 30, 2009. See 49 CFR § 236.1015(d)(13) at 75 Fed. Reg. 2598, 2709 (Jan. 15, 2010). FRA believes that properly configured PTC systems will effectively address this need. However, at this time, there are no plans for universal PTC deployment on the general railroad system. FRA brought concerns about roadway worker safety to the RSAC's attention in September 2008, and FRA will continue to raise them in industry meetings. FRA established the Fatality Analysis Maintenance-of-way Employees and Signalmen Committee to study fatalities involving MOW roadway workers. The committee is in the process of drafting recommendations involving train dispatching systems and procedures to ensure that the appropriate safety redundancies are in place for establishing protection and preventing undesired removal of protection for roadway workers receiving track occupancy authority.	Collect and analyze data. Advise railroads of needed procedures/safety redundancies. Review PTC Development and Safety Plans to ensure Roadway Worker Protection.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
23	06/07/06	R-06-07	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA require railroads to implement for all power-assisted switch machines, regardless of location, a formal commissioning procedure and a formal maintenance program that includes records of inspections, tests, maintenance, and repairs.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – <u>Acceptable Response</u>. The RSAC Dark Territory Working Group was formed and met four times. Depending on the outcome of FRA’s RRP and railroad SSP rules (both of which contain a technology safety plan component), FRA may issue an NPRM that would require any railroad using certain types of safety technology, including power-assisted switch machines, in nonsignaled territory to develop, and submit for FRA approval, plans governing the maintenance, inspection, and testing of these devices. Similarly, FRA may issue a guidance document that would address the maintenance, inspection, and testing of certain safety technologies, including power-assisted switch machines, in nonsignaled territory.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Issue guidance document or NPRM.</p>
24	12/12/05	R-05-17	<p>NTSB recommended that FRA determine the most effective methods of providing emergency escape breathing apparatuses for all crewmembers on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of unintentional release and require railroads to provide these breathing apparatus to their crewmembers along with appropriate training.</p>	<p>Open – <u>Acceptable Response</u>. See response to Section 413 in Exhibit A.</p> <p>OMB has designated this rulemaking as significant. FRA recently received additional comments on the NPRM and is considering them. FRA expects to publish the final rule in 2014.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Issue regulations as necessary.</p>
25	11/23/05	R-05-09	<p>NTSB recommended that FRA develop guidelines for locomotive engineer simulator training programs that go beyond developing basic skills and teach strategies for effectively managing multiple concurrent tasks and atypical situations.</p>	<p>Open – <u>Acceptable Response</u>. FRA sponsored research, conducted by Veolia, to develop strategies, guidelines and training for locomotive crews on mitigation of distraction. The project will be restarted in March 2014, following the software system upgrade of FRA’s Cab Technology Integration Lab (simulator). FRA expects the completion of this project in September 2014. FRA will make the results publically available.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Develop and issue guidelines.</p> <p>Publish and make findings available.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
26	03/15/04	R-04-07	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA develop and implement Tank Car Design-Specific Fracture Toughness Standards, such as a minimum average Charpy value, for steels and other materials of construction for pressure tank cars used for the transportation of the DOT's Class 2 hazardous materials, including those in "low temperature" service. The performance criteria must apply to the material orientation with the minimum impact resistance and take into account the entire range of operating temperatures of the tank car.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Acceptable Response. FRA is a participating member of the Advanced Tank Car Collaborative Research Project (ATCCRP), an industry and government consortium focused on research related to the improvement of the crashworthiness of tank cars transporting materials that are poison inhalation hazards. As part of this collaborative effort, FRA sponsored a project titled "Detailed Puncture Analyses Tank Cars: Analysis of Different Impactor Threats and Impact Conditions," which is available at http://www.fra.dot.gov/eLib/Details/L04420, to evaluate the puncture resistance of tank cars under a variety of impact scenarios (size of indenter and angle of impact). The results of the project were also used to determine a standard methodology for modeling and simulating impacts to tank cars. Another research project within ATCCRP is correlating standard materials properties, such as tensile strength and Charpy values, to puncture resistance. These results will be used to inform the constitutive elements in tank car models and simulations.</p> <p>Additionally, on December 18, 2013, FRA conducted a full-scale puncture test of a DOT 111 tank car at the Transportation Technology Center in Pueblo, CO. Another test, on a DOT 112 tank car is scheduled for early March 2014. These tests will follow established procedures that will comprise the standard for future full-scale tests. The results of these full-scale puncture tests will be used to validate results of the computer simulations performed on Report DOT/FRA/ORD-13/17. Concurrently, FRA has initiated a project to identify material properties needed to prevent the puncture of a DOT 105 tank car subjected to a baseline performance standard.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Continue research.</p> <p>Work with PHMSA to issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
27	09/24/01	R-01-17	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA modify Title 49 Code of Federal Regulations (CFR) Section 219.201(b), as necessary, to ensure that the exemption from mandatory post-accident drug and alcohol testing for those involved in highway-rail grade crossing accidents does not apply to any railroad signal, maintenance, and other employees whose actions at or near a grade crossing involved in an accident may have contributed to the occurrence or severity of the accident.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p><u>Open – Acceptable Response.</u> In the draft NPRM under development in response to the mandate of Section 412 of the RSIA, FRA is considering narrowing its highway-rail grade crossing exemption by requiring FRA’s post-accident toxicological testing of a railroad signal, maintenance, or other employee who may have contributed to the cause or severity of an accident.</p>	<p>Issue regulations as necessary.</p>
28	03/12/01	R-01-02	<p>NTSB recommended that FRA evaluate, with the assistance of Research and Special Programs Administration, AAR, and the Railway Progress Institute, the deterioration of pressure relief devices through normal service and then develop inspection criteria to ensure that the pressure relief devices remain functional between regular inspection intervals. FRA is to incorporate these inspection criteria into DOT’s Hazardous Materials Regulations.</p>	<p><u>Open – Acceptable Response.</u> FRA initiated a project to evaluate the effects of environmental conditions on the determination for the start-to-discharge pressure of pressure relief valves. A set of valves ranging in start-to-discharge pressures are to be sent to facilities in areas that represent the range of environmental conditions where the valves are inspected and repaired. FRA expects that the project will be completed in 2014.</p>	<p>Evaluate research results and work with the Pipeline and Hazardous Materials Safety Administration (PHMSA) to issue regulations as necessary.</p>
29	01/13/00	R-00-04	<p>NTSB recommended that FRA establish, in coordination with DOT, the Federal Motor Carrier Safety Administration, the Federal Transit Administration, and the U.S. Coast Guard, comprehensive toxicological testing requirements for an appropriate sample of fatal highway, railroad, transit, and marine accidents to ensure the identification of the role played by common prescription and over-the-counter medications. FRA is to review and analyze the results of such testing at intervals not to exceed every 5 years.</p>	<p><u>Open – Acceptable Response.</u> FRA published a final rule adding tramadol (a semisynthetic opioid) and sedating antihistamines to its standard post-accident toxicological testing panel. 78 Fed. Reg. 14225 (March 5, 2013). As FRA noted in the preamble to the final rule, FRA’s post-accident toxicological testing program is flexible enough to allow the agency to continually evaluate the drugs included in its post-accident toxicological testing panel and to adjust the panel as necessary, either on a case-by-case or broader basis.</p>	<p>FRA submits that the NTSB should reclassify this recommendation as “Closed – Acceptable.”</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
30	01/13/00	R-00-03	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA establish and implement an educational program targeting train operating crewmembers that, at a minimum, ensures that all crewmembers are aware of the source of information described in NTSB Rec. No. R-00-002 regarding the hazards of using specific medications when performing their duties.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Acceptable Response. See response to R-00-01.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Complete and publish training module.</p> <p>Issue regulations as necessary.</p>
31	01/13/00	R-00-02	<p>NTSB recommended that FRA develop, then periodically publish, an easy-to-understand source of information for train operating crewmembers on the hazards of using specific medications when performing their duties.</p>	<p>Open – Acceptable Response. See response to R-00-01.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Complete and publish training module.</p> <p>Issue regulations as necessary.</p>
32	01/13/00	R-00-01	<p>NTSB recommended that FRA establish, with assistance from experts on the effects of pharmacological agents on human performance and alertness, procedures or criteria by which train operating crewmembers who medically require substances not on DOT's list of approved medications may be allowed, when appropriate, to use those medications when performing their duties.</p>	<p>Open – Acceptable Response. In the draft NPRM under development in response to the mandate of Section 412 of the RSIA, FRA intends to solicit comment on R-00-01, R-00-02, and R-00-03</p> <p>FRA is also planning to develop and make available on its Web site a virtual training module on the hazards of performing regulated service while using drugs with possible sedating or impairing effects. Railroads and contractors will be able to voluntarily choose to adopt or modify this module for their own training.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Complete and publish training module.</p> <p>Issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
33	03/08/2013	R-13-06	<p>Incorporate the use of handheld signal detection devices to aid in the enforcement of Title 49 Code of Federal Regulations Part 220 Subpart C.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – <u>Unacceptable Response</u>. FRA inspectors do not have the legal authority to search a railroad employee's person or any of the employee's personal belongings to attempt to locate a personal electronic device. Thus, even if a signal detection device alerted an FRA inspector that a personal electronic device was turned on, although prohibited, FRA inspectors would not have authority to search for, or to require a railroad employee to produce a device. In the course of conducting routine inspection activities, FRA inspectors instead rely principally on their direct observations. If an electronic device is in plain view and it is required to be turned off at the time of the inspector's observation, it is FRA policy that the inspectors should ask the railroad employee to verify that the device is turned off. FRA believes that the use of signal detection devices, whether clandestinely or openly, would erode the trust that railroad employees generally have for the agency, chill the communication and cooperation that mutually benefits both the employees and the agency, and therefore cause a negative impact on overall safety. Specifically, FRA believes that use of such detection devices by FRA personnel during routine compliance inspections would lead to a tendency for railroad employees to be less than forthcoming in reporting future safety violations to FRA and in approaching FRA with reports of hazardous safety conditions, whether or not the conditions constitute safety violations in themselves. FRA believes that the use of such detection devices would detract from, rather than promote, safety.</p> <p>FRA has undertaken several efforts to curb the use of distracting electronic devices by railroad employees. For example, in March 2011, FRA's final rule (75 FR 59580) restricting the use of personal and railroad-supplied electronic devices by on-duty railroad operating employees took effect. FRA inspectors closely monitor compliance with the requirements of this regulation during compliance inspections. FRA has also formed an RSAC working group to develop strategies and programs that prevent unauthorized use of electronic devices (cell phones, pagers, etc.) during safety-critical rail operations. This Electronic Device Distraction Working Group includes representatives from FRA, industry (AAR, ASLRRA, and APTA), and labor (Brotherhood of Locomotive Engineers and Trainmen, United Transportation Union, and Brotherhood of Railroad Signalmen and Trainmen, United Transportation Union, and Brotherhood of Railroad Signalmen).</p>	<p>FRA inspectors will continue to closely monitor railroad employee compliance with existing regulations and railroad rules governing the use of electronic devices while performing inspection activities. FRA will also continue to use its legal authority to subpoena cellular phone transmission records during railroad accident/incident investigations when appropriate. FRA will also continue other efforts to curb the use of distracting electronic device use by railroad employees, such as the described RSAC working group activities in regard to electronic device distraction.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
34	03/08/2013	R-13-05	<p>Open NTSB Recommendation</p> <p>Identify, and require railroads to use in locomotive cabs, technology-based solutions that detect the presence of signal-emitting portable electronic devices and that inform the railroad management about the detected devices in real time.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p><u>Open – Unacceptable Response.</u> This technology has not been specifically developed for use in a railroad environment. The existing technology is not suitable for a locomotive cab, because the cab is a small area that is open to the environment. Based on available information on other applications, FRA has concerns that the detection of the presence of signals from an electronic device in a locomotive cab could result in many false positives (i.e., the detection of signals coming from sources outside the cab, including those from off-railroad property, including potentially nearby pedestrians, drivers waiting at grade crossings, and even people in nearby buildings). Trackside devices, or even devices on a locomotive itself, that communicate on cellular frequencies could also be falsely detected as in-cab transmissions. Depending on the sensitivity of the detection device, devices on passenger locomotives (particularly multiple-unit locomotives or cab cars) could even falsely detect passenger use of cell phones. On the other hand, reducing the sensitivity of the detection device to eliminate false positives also reduces the percentage of true positives that are detected.</p> <p>In addition, if all such incidents of signal detection were to be detected and reported to the railroad in real time, and the railroad expected to take action, an undue communications burden could be placed on certain railroad employees, particularly dispatchers. Presumably, dispatchers would be responsible for determining whether each reported detection is a true or false positive. This distraction from their primary dispatching functions could serve to reduce the safety of operations, rather than enhance it.</p>	<p>Monitor technological developments.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
35	01/28/2013	R-12-41	<p>Open NTSB Recommendation Require that passenger railcar doors be designed to prevent fire and smoke from traveling between railcars.</p>	<p>NTSB Classification and Actions Taken by FRA <u>Open</u> – <u>Unacceptable Response</u>. Although doors that would prevent fire and smoke from traveling between passenger railcars are not explicitly required by FRA’s passenger equipment fire-safety regulations, the regulations do require design features and analysis consideration to minimize the threat of fire and smoke transmission into passenger and crew compartments. For instance, in specifying criteria for the flammability and smoke emission characteristics of materials used in passenger cars and locomotive cabs, the regulations address the design of vehicle components that may propagate allow or increase the passage of fire or smoke, including categories for elastomers (e.g., intercar diaphragms) and structural components (e.g., floors and other portions of the vehicle body). (See 49 CFR § 238.103, referencing Appendix B.)</p> <p>Moreover, the regulations require that a safety analysis be performed on new passenger equipment (see 49 CFR § 238.103(c)) and on existing passenger equipment (see 49 CFR § 238.103(d)). The requirement for new equipment specifically directs that effective steps be taken to design the equipment and select materials that help provide sufficient fire resistance to reasonably ensure adequate time to detect a fire and safely evacuate the passengers and crewmembers (see 49 CFR § 238.103(c)(2)). In this regard, FRA’s regulations comprise a systems approach to fire safety, reflecting generally accepted fire protection engineering practices and principles to limit the overall risk of fire in a vehicle and promote the time available for passenger and crew evacuation if a fire does occur. This approach dovetails in particular with FRA’s efforts to enhance requirements for passenger car egress and rescue access, such as through the Passenger Train Emergency Systems II Final Rule (see 78 Fed. Reg. 71785 (Nov. 29, 2013)).</p> <p>In addition to FRA’s fire-safety regulations and complementary emergency systems effort, FRA’s SSP rulemaking is intended to enhance the overall safety of passenger railroad operations using SSP Plans to identify and then mitigate the hazards that each railroad faces. FRA believes that these rulemaking efforts, together with the requirements of FRA’s fire safety regulations, constitute acceptable alternate action to provide for overall passenger and crewmember safety, rather than a prescriptive requirement for fire doors specifically.</p>	Issue SSP final rule.
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Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
36	5/24/2012	R-12-27	<p>Require railroads to install, along main lines in non-signalized territory not equipped with PTC, appropriate technology that warns approaching trains of incorrectly lined main track switches sufficiently in advance to permit stopping.</p>	<p><u>Open – Unacceptable Response.</u> Given the mandate for the widespread implementation of PTC across much of the industry, and the resultant huge resource-intensive burden, the majority of railroads could simply not accomplish any further requirement for additional technologies that would compete with the same or similar resources. Through the subsequent RSAC Dark Territory Working Group, safety technologies associated with switch detection have been a primary topic of consideration. However, these Dark Territory Working Group meetings (whose activities have been suspended due to failure to reach consensus) have not resulted in a recommendation to issue Federal requirements to implement such technology. Instead, the Dark Territory Working Group developed a document proposing that railroads create individual plans governing the maintenance, inspection, and testing of certain safety technologies (such as those associated with switch detection) that have already been voluntarily implemented in dark territory. In addition, the preliminary cost-benefit analysis related to this recommendation shows that a rulemaking to require the installation of safety technology that warns approaching trains of incorrectly lined main track switches cannot be justified as costs outweigh benefits.</p>	<p>Issue guidance document that would address best practices associated with the implementation of switch-position monitoring systems in nonsignalized territory.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
37	5/10/2012	R-12-22	<p>Open NTSB Recommendation</p> <p>Revise 49 CFR Part 229 to require crashworthiness performance validation for all new locomotive designs under conditions expected in a collision.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p><u>Open – Unacceptable Response.</u> Locomotive crashworthiness design requirements encompass considerably more than the two sections cited by the NTSB in its clarification of R-12-22. For example, 49 CFR §§ 229.205 and 229.206 incorporate the crashworthiness design requirements of AAR Standard S-580 by reference. Title 49 CFR Part 229, Appendix E, gives collision scenarios on which crashworthy designs may be based. Title 49 CFR §§ 229.207 and 229.209 give alternatives that locomotive designers or manufacturers may pursue and 49 CFR § 229.211 discusses the processing of petitions for FRA approval of alternate designs. These requirements were based on years of FRA-sponsored crash testing and simulations, which, in turn, were based on a variety of conditions expected in a collision. The criteria for these conditions were based on the most common and recurring types of collisions. Due to the infrequency of certain types of events, not all collision scenarios can be expected. Such is the case with the rear-end collision in Red Oak, Iowa, which prompted this recommendation. Based on both historical and recent data collection, the probability of a similar event happening is remote. Although a variety of collision scenarios were considered, it is virtually impossible to account for every individual and remote occurrence within the economic requirement for FRA regulations. FRA believes the objectives of R-12-22 have largely been met in the regulations already in place.</p>	<p>Continue research.</p> <p>Issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
38	5/10/2012	R-12-20	Require the use of PTC technologies that will detect the rear of trains and prevent rear-end collisions.	<p>Open – Unacceptable Response. The RSIA mandated PTC system implementation across major portions of the Nation's railroads by December 31, 2015. With the assistance of the RSAC, of which the NTSB is a participating member, FRA published the final rule addressing the statutory requirements of PTC on January 15, 2010, with amendments on September 27, 2010, and May 14, 2012. An NPRM proposing additional amendments to the rule was published on December 11, 2012, and FRA will publish the final rule as soon as possible. PTC is expected to be installed by 38 railroads on a total of approximately 18,000 locomotives and on 70,000 miles of track, representing approximately one-half of all route miles of track in the United States. FRA is continually working with the AAR, the APTA, the American Short Line and Regional Railroad Association (ASLRRRA), and the individual railroads subject to the PTC implementation mandate to provide regulatory compliance guidance and to identify and document the scope and effect of technical issues that may affect full and timely PTC implementation. The rail industry continues to reason that PTC's high negative return on investment supports not installing PTC on any lines unless required. Detailed studies of the cost-effectiveness of requiring the use of PTC technologies that will detect the rear of trains and prevent rear-end collisions at restricted speed will significantly add to the negative benefit/cost ratio that is widely stated as one of the chief deterrents to the use of this technology. PTC system development is complex, requiring the employment of various subject matter experts to develop, install, and test components. Each manufacturer must develop and test its components. It is not until after that phase is completed that each railroad can perform component and system integration, which is necessary to determine and mitigate risks associated with potential or actual defects. These activities must be carefully planned with an expectation of schedule modification based on the results of the development, implementation, testing, and deployment stages.</p> <p>Although progress is certainly being made across the rail industry, sincere concerns exist as to whether the railroads individually and collectively can accomplish such a mandate in the allowable timeframe. FRA submitted a formal status report to Congress on August 10, 2012, on the railroads' PTC implementation progress. This report identified several significant technical and programmatic obstacles that could result in the implementation deadline not being fully met. For FRA to enter into rulemaking to add additional requirements to PTC functionality at this late date would be counterproductive due to the railroads' having to redesign the PTC systems that had been approved and that are in various stages of testing, evaluation, and installation. This would certainly result in additional delays in the development and implementation of PTC.</p> <p>In the first final rule, FRA recognized that available PTC technology does not always track the rear-end of each train, but instead relies on the signal to indicate the appropriate action. The likelihood and average severity of any potential collisions would be greatly reduced considering such movements would be made under restricted speed. FRA indicated that it may address this issue in a later modification to Subpart I, if necessary, as technology becomes available. 75 FR 2598, 2611 (Jan. 15, 2010).</p> <p>In light of the above, FRA believes that adding the requirement to have PTC include the detection of the rear of a train as a target would be counterproductive at this time. Adding the technology to give PTC systems the ability to detect the rear of a train as a target and the resultant safety benefits should be studied once the current efforts to install PTC are complete.</p>	Issue regulations as necessary.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
39	05/10/2012	R-12-17	<p>Open NTSB Recommendation</p> <p>Establish an ongoing program to monitor, evaluate, report on, and continuously improve fatigue management systems implemented by operating railroads to identify, mitigate, and continuously reduce fatigue-related risks for personnel performing safety-critical tasks, with particular emphasis on biomathematical models of fatigue.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p><u>Open – Unacceptable Response.</u> The RSIA requires under Section 103 that the Secretary conduct an annual review of a railroad’s RRP to ensure the railroad is complying with its plan. Under the RSIA, railroads will be required to review and revise their FMP at least once every 2 years. The RSAC created a Task Statement for FMPs, and a working group assisted FRA in developing rule text that will form the basis for regulations related to the FMPs required under RSIA Section 103. Additionally, FRA developed a FRMS guidance document for the railroads that outlines the components of an FRMS, the steps to establishing an FRMS, and evaluation requirements. One of these requirements is to identify fatigue hazards and assess risks associated with these hazards. FRA developed guidance documentation that addresses how this can be accomplished through the use of biomathematical models of fatigue.</p> <p>Additionally, the RSIA requires under Section 103(c) that a railroad developing an RRP must conduct a risk analysis. The risk analysis will include fatigue-related risks. This risk analysis must “identify and analyze the aspects of its railroad, including operating rules and practices, infrastructure, equipment, employee levels and schedules, safety culture, management structure, employee training, and other matters, including those not covered by railroad safety regulations or other Federal regulations, that impact railroad safety.” FRA is actively seeking railroads to participate in pilot projects that will examine the effects of scheduling pools, advanced call times, and decreased time at the away-from-home terminal on the fatigue experienced by train crews. The implementation of the regulation and the pilot projects will provide an additional mechanism for assessing the use of biomathematical models.</p>	<p>Continue research.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
40	02/23/2010	R-10-02	NTSB recommended that FRA require that railroads regularly review and use in-cab audio and image recordings (with appropriate limitations on public release), in conjunction with other performance data, to verify that train crew actions are in accordance with rules and procedures that are essential to safety.	Open – <u>Unacceptable Response</u> . See FRA’s response to R-10-01.	Identify and pursue appropriate options to promote accident investigation and prevention through the use of audio and image recording devices.
41	02/23/2010	R-10-01	NTSB recommended that FRA require the installation, in all controlling locomotive cabs and cab car operating compartments, of crash- and fire-protected inward- and outward-facing audio and image recorders capable of providing recordings to verify that train crew actions are in accordance with rules and procedures that are essential to safety as well as train operating conditions. The devices should have a minimum 12-hour continuous recording capability with recordings that are easily accessible for review, with appropriate limitations on public release, for the investigation of accidents or for use by management in carrying out efficiency testing and system wide performance monitoring programs.	Open – <u>Unacceptable Response</u> . FRA recognizes the value of recordings for accident investigation purposes, and believes that the information gathered could also play a constructive role in a concerted risk reduction effort having the support of employee representatives and progressive carrier management. AAR is conducting a pilot program using inward- and outward-facing cameras, and FRA is monitoring the progress of this pilot program, the safety benefits it may yield, and how the data is appropriately used. Based on what FRA has learned to date, in March 2014, the agency intends to engage the RSAC to address this issue and provide rulemaking recommendations.	Identify and pursue appropriate options to promote accident investigation and prevention through the use of audio and image recording devices. Present a rulemaking task to the RSAC by June 2014 to address this recommendation.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
42	05/022/08	R-08-12	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA assist PHMSA in its evaluation of the risks posed to train crews by unit trains transporting hazardous materials, determination of the optimum separation requirements between occupied locomotives and hazardous materials cars, and any resulting revision to 49 CFR § 174.85.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Unacceptable Response. In July 2013, FRA and PHMSA initiated a comprehensive review of operational factors that affect the safety of the transportation of hazardous materials by rail. As part of this review, FRA opened a public docket (FRA-2013-0067) titled “Improving the Safety of Railroad Transportation of Hazardous Materials” and, with PHMSA, hosted a public meeting on August 27–28, 2013, to solicit comments related to the rail-specific portions of the HMR (particularly Part 174), as well as other issues related to the transportation of hazardous materials by rail. Placarded cars’ position in the train was a focus issue of the meeting. FRA and PHMSA are reviewing all input received and, in conjunction with the additional regulatory activities referenced in response to R-07-02, will develop regulatory text to address the identified issues, as appropriate.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>Conduct outreach.</p> <p>If necessary clarify and/or revise the requirements on buffer car use.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
43	04/25/07	R-07-02	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA assist PHMSA in developing regulations to require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Unacceptable Response. As part of a comprehensive review of operational factors that affect the safety of the transportation of hazardous materials by rail, in July 2013, FRA opened a public docket (FRA-2013-0067) titled “Improving the Safety of Railroad Transportation of Hazardous Materials.” The solicitation of input through this docket is one component of FRA and PHMSA’s efforts to comprehensively review, update, and strengthen the rail-specific portions of the HMR (particularly Part 174). On August 27–28, 2013, FRA and PHMSA hosted a public meeting to solicit comments related to Part 174, as well as other issues related to the transportation of hazardous materials by rail. During the meeting, FRA posed a question regarding mechanisms to ensure accurate, real-time information regarding the identity and location of hazardous materials in trains are available for first responders. The agencies are considering the comments received. In addition, FRA and PHMSA are pursuing additional regulatory initiatives aimed at improving the safety of rail transportation of hazardous materials (both through the RSAC process and through PHMSA’s publication of an ANPRM soliciting comment on various petitions and NTSB recommendations related to the transportation of hazardous materials by rail. <u>See 78 FR 54849</u>. FRA and PHMSA are reviewing all available information as part of the agencies’ comprehensive review and will develop regulatory text to address identified issues, as appropriate.</p>	<p>Issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
44	03/15/04	R-04-01	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA require all railroads with continuous welded rail (CWR) track include procedures (in the programs that are filed with FRA) that prescribe on-the-ground visual inspections and non-destructive testing techniques for identifying cracks in rail joint bars before they grow to critical size.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p><u>Open – Unacceptable Response.</u> On October 11, 2006, FRA published a regulation that required railroads to establish a program for the periodic visual inspection of joint bars in CWR track by January 1, 2007. See 71 Fed. Reg. 59677. However, the regulation did not require nondestructive testing of joint bars on a periodic basis. FRA stated that there was insufficient engineering data to establish the effectiveness of nondestructive testing techniques as applied to joint bars in the service environment. FRA and AAR (through the Transportation Technology Center) are working on nondestructive testing techniques that may be useful in the future.</p> <p>Meanwhile, FRA successfully demonstrated optical recognition technology designed to identify very small joint bar cracks on a production basis, and that technology is now being commercialized. In addition, technology was developed by a nondestructive test company in the United States that has the capability to perform a dynamic ultrasonic inspection of the upper portion of the joint bar structure. However, the effectiveness and accuracy of this technology is limited due to only the top portion of the joint bar being tested. No further technological advancements in nondestructive testing have been identified that will consistently identify cracks associated with joint bars. Until technology is developed to perform a nondestructive inspection of joint bars, FRA must continue to require visual inspection for compliance.</p> <p>On August 25, 2009, FRA published a final rule to enhance requirements for CWR generally. See 74 Fed. Reg. 43002. Nevertheless, NTSB has advised FRA that, to fully meet the intent of the recommendation, the required inspection procedures need to include nondestructive testing techniques for identifying cracks in rail joint bars.</p>	<p>Develop and issue a specific regulation if determined necessary, when suitable technology becomes available.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
45	03/21/02	R-02-05	<p>Open NTSB Recommendation</p> <p>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.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Unacceptable Response. On March 8, 2006, FRA issued Safety Advisory 2006-02 in response to this recommendation. See 71 Fed. Reg. 11700. The purpose of this advisory was to reduce the number of rail defects that occur when secondhand rail is used and to recommend practices for testing, classifying, and reusing secondhand rail. However, the NTSB responded that FRA’s advisory be revised to recommend that all railroads conduct ultrasonic or other appropriate inspections to ensure that all rail used as replacement rail is tested and determined to be free from internal defects.</p> <p>Subsequently, FRA has worked intensively on this issue through the Rail Integrity Task Force of RSAC’s Track Safety Standards Working Group, which is helping to revise the requirements for rail integrity, including replacement rail. The Rail Integrity Task Force reached consensus on addition to 49 CFR § 213.237 addressing inspection requirements for rail used to replace defective segments. [The final rule addressing these issues was issued on January 24, 2014. See 79 FR 4234.]</p> <p>FRA also established the Rail and Infrastructure Integrity Division to review all railroads’ internal rail defect detection procedures and recommend changes, as needed, to ensure that an uninterrupted, continuous search for rail flaws is conducted by the railroads.</p>	Done.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
46	08/28/97	R-97-17	<p>NTSB recommended that FRA require all passenger cars contain reliable emergency lighting fixtures that are each fitted with a self-contained independent power source and that FRA incorporate the requirements into minimum Passenger Car Safety Standards.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Unacceptable Response. On February 20, 2008, RSAC's Passenger Safety Working Group recommended proposed rule language to the RSAC that would incorporate this new American Public Transportation Association (APTA) standard by reference. The RSAC accepted the working group's recommendations, and FRA will publish an NPRM in spring 2013.</p> <p>On May 12, 1999, FRA published the Passenger Equipment Safety Standards, which required emergency lighting for passenger cars ordered on or after September 8, 2000, or those placed into service for the first time on or after September 9, 2002. Subsequently, FRA worked with APTA to develop industry standards to improve emergency lighting systems in all passenger cars, including the survivability of the systems. See APTA PR-E-S-013-99 (previously SS-E-013-99), Rev. 1, Standard for Emergency Lighting System Design for Passenger Cars (October 2007).</p> <p>On February 20, 2008, RSAC's Passenger Safety Working Group recommended proposed rule language to the RSAC that would incorporate this new APTA standard by reference. The RSAC accepted the working group's recommendations, and FRA published an NPRM based on the RSAC's recommendations on January 3, 2012. 77 Fed. Reg. 153. FRA published a final rule on November 29, 2013. 78 Fed. Reg. 71786.</p> <p>A task force evaluated the feasibility of equipping fixtures with self-contained power sources that were independent of the main car battery and concluded that maintenance would be very costly due to the high number of power sources. The task force examined other methods for addressing the issue of emergency lighting system reliability and assisted APTA in revising APTA PR-E-S-013-99 (previously SS-E-013-99), Standard for Emergency Lighting System Design for Passenger Cars, to better address those situations in which an emergency lighting system may be most beneficial. APTA added four requirements that address NTSB's recommendation to FRA regarding emergency lighting survivability for new passenger cars.</p>	Done.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
47	08/28/97	R-97-15	<p>Open NTSB Recommendation</p> <p>NTSB recommended that FRA require all passenger cars have either removable windows, kick panels, or other suitable means for emergency exiting through the interior and exterior passageway doors where the door could impede passengers exiting in an emergency and that FRA take appropriate emergency measures to ensure corrective action until these measures are incorporated into minimum Passenger Car Safety Standards.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Unacceptable Response. On May 12, 1999, FRA published the Passenger Equipment Safety Standards for rail passenger service. 64 Fed. Reg. 25660. These regulations addressed kickout panels in doors for trains traveling 126 to 150 mph (Tier II passenger equipment), but did not address kickout panels in doors for trains traveling at or below 125 mph (Tier I passenger equipment). Nonetheless, these regulations did address egress through doors and windows for Tier I passenger equipment, and on February 1, 2008, FRA published a final rule amending the Passenger Equipment Safety Standards to further enhance egress requirements. 73 Fed. Reg. 6412.</p> <p>FRA researched the viability of integrating removable panels or windows into end-frame doors in cab cars and multiple-unit locomotives, focusing on developing requirements and design concepts. It was found that if removable panels or windows were to be placed in such doors, the panels or windows would have to withstand substantial loading forces to maintain the integrity of the end-frame structure and meet existing FRA regulations.</p> <p>FRA's RSAC Emergency Preparedness Task Force reviewed this recommendation together with the results of FRA's research. The task force, through the PSWG, reported its own recommendations for removable panels in certain interior doors to the RSAC on February 20, 2008, which in turn accepted the task force's recommendations. The RSAC recommendations apply to new passenger cars, and an NPRM based on the RSAC's recommendations was published on January 3, 2012. 77 Fed. Reg. 153. FRA published a final rule on November 29, 2013. 78 Fed. Reg. 71786.</p> <p>The task force considered but did not recommend retrofit requirements for existing equipment. This was due primarily to limitations posed by the design of existing doors, which have a horizontal structural member that provides rigidity and is located approximately at the vertical center of the door, significantly limiting both the size and location of a removable panel or window. Although there are existing windows in the upper half of the doors, these are not sufficiently large for many adults to pass through and would be difficult to access in many situations due to their location. In addition, because the removable windows and panels contemplated by industry for use in compliance with such a requirement would be designed in much the same fashion as emergency window exits with gaskets that could be removed with a handle, the door pockets would require modification to fit the protrusions in the door created by the handle.</p>	<p>Done.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
48	8/14/2013	R-13-23	<p>Open NTSB Recommendation</p> <p>Publish the positive train control implementation update reports submitted by all railroads subject to the positive train control provisions of the Rail Safety Improvement Act of 2008 and make the reports available on your website within 30 days of report receipt.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Await Response. Pursuant to Section 20157 of the RSIA8 and its concomitant regulations at 49 CFR Part 236, Subpart I, each PTC host railroad was required to submit by April 16, 2010, a PTC Implementation Plan (PTCIP), complete with a schedule for completion by the statutory deadline of December 31, 2015. The regulations also require each PTC host railroad to provide an annual report by April 16 of 2011, 2012, 2013, and 2014, addressing its progress on implementing locomotive onboard PTC apparatuses. Currently, PTC host railroads are required to submit only one more report.</p> <p>Because only one more report is required and for the reasons set forth below, FRA has opted not to automatically make these reports public. The reports provide only a snapshot in time, and FRA does not approve or comment on this data. Rather, FRA frequently communicates with the railroads on the implementation of each railroad’s individual plan, and FRA does not rely upon the reports as its key source of information. Alone, and without the additional context, the data contained in a railroad’s PTCIP has little value and does not account for the fluidity, complexity, and depth of PTC system implementation. To publish this information would likely mislead and confuse the public. FRA believes that proactively releasing this information, and responding to inquiries and complaints, would waste valuable agency resources, particularly at this late date.</p> <p>Nevertheless, this information may be available through the filing of a proper request under the Freedom of Information Act, which FRA will consider on a case-by-case basis.</p>	<p>Continue to closely monitor railroad compliance with PTCIP requirements.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
49	8/14/2013	R-13-22	<p>Require all information captured by any required recorder to also be recorded in another location remote from the lead locomotive(s), to minimize the likelihood of the information's being unrecoverable as a result of an accident.</p>	<p>Open – Await Response. The loss of event recorder data is rare. Although loss may occur under certain extreme circumstances, the current requirements for a certified crashworthy event recorder memory module include that it survive a temperature of 1,400° F for 1 hour, 500° F for 10 hours, an impact shock of 55 acceleration of gravity (100 milliseconds pulse), static crush of 25,000 pounds for 5 minutes, and fluid immersion for over 48 hours. See Appendix D to 49 CFR Part 229. In the rare circumstances that these limits are exceeded, the minimal risk of lost data on the lead locomotive is offset by data retention on the memory modules on trailing locomotives in the consist, which are recording most of the same data.</p> <p>For those rare accidents involving trains with a single locomotive whose event recorder memory module is destroyed by conditions exceeding the test conditions given above, or accidents in which event recorder memory modules on all locomotives in the consist are destroyed, remote recording of the event recorder data would need to be accomplished in real time, since the data in the last few seconds before the accident occurs is what is most needed in an accident investigation. Currently, no railroad has the ability to continuously download and transmit the content of the locomotive-mounted event recorder to capture the real-time data that the recommendation appears to demand. In addition to any onboard technology that might be required to provide such continuous communication, the ability to conduct such transmissions would likely require railroads to acquire additional communications spectrum availability. Railroads are already competing for sufficient communications spectrum to implement PTC systems, as documented in FRA's August 2012 report to Congress titled "Positive Train Control: Implementation Status, Issues, and Impacts" (Pages 15–18), as well as additional radio communications issues discussed in that same report (Pages 18–21), which is available at www.fra.dot.gov. Railroads would also likely need to install additional wayside communication equipment outside of PTC-equipped areas to transmit real-time information to a remote location. Due to the very limited number of accidents in which remotely recorded data would be useful, and the difficulty (and cost) of implementing this recommendation, FRA sees no additional benefits to its overall rail safety program and asks that this recommendation be reconsidered and closed.</p>	<p>FRA will continue monitoring railroads for compliance with current regulatory requirements.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
50	8/14/2013	R-13-21	<p>Develop medical certification regulations for employees in safety-sensitive positions that include, at a minimum, (1) a complete medical history that includes specific screening for sleep disorders, a review of current medications, and a thorough physical examination, (2) standardization of testing protocols across the industry, and (3) centralized oversight of certification decisions for employees who fail initial testing; and consider requiring that medical examinations be performed by those with specific training and certification in evaluating medication use and health issues related to occupational safety on railroads. [This recommendation supersedes Safety Recommendations R-02-24 through -26.]</p>	<p>Open – Await Response. See responses to R-00-01 and R-13-20.</p>	<p>Revisit vision and hearing standards in future rulemakings.</p> <p>Develop rule text related to FMPs in working group.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	Actions Needed to Be Taken by FRA
51	8/14/2013	R-13-20	<p>Open NTSB Recommendation Require more frequent medical certification exams for employees in safety-sensitive positions who have chronic conditions with the potential to deteriorate sufficiently to impair safe job performance.</p>	<p>NTSB Classification and Actions Taken by FRA <u>Open – A wait Response.</u> On January 2, 2014, FRA sent a letter to the NTSB containing a discussion substantially similar to the following information: In 2006, partly in response to superseded Safety Recommendations R-02-24 through R-02-26, the RSAC accepted a task to develop a program “[to] enhance the safety of persons in the railroad operating environment and the public by establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions.” The RSAC delegated this task to a Medical Standards Working Group (MSWG), which agreed to draft rule text and to create a Physicians Task Force to develop medical standards. The MSWG decided to focus on vision, hearing, and medical conditions such as obstructive sleep apnea that could pose a risk of sudden incapacitation. After 5 years of meetings, the MSWG reported that it was unable to reach consensus on either rule text or on medical standards and the task was placed on hiatus. Although consensus was not achieved, the MSWG meetings that were held over this period provided a forum for railroads, representatives of railroad employees, and other members of the RSAC to become better informed about medical fitness-for-duty programs and policies within the railroad industry and other transportation industries, as well as an opportunity to discuss their respective concerns about the benefits, fairness, and potential economic impact of such programs and policies. FRA believes that railroads and representatives of employees, working together, can use this information to develop risk reduction strategies on individual railroad properties that prevent accidents and improve railroad safety. FRA has since adopted a multipronged approach to address the fitness for duty of safety-sensitive employees. In a future rulemaking, FRA will reconsider its vision and hearing standards for certified locomotive engineers and conductors. In addition, the RSAC created a Task Statement for FMPs, and a working group assisted FRA in developing rule text that will form the basis for regulations related to the FMPs required under RSIA Section 103. Section 103 provides that these plans must consider sleep disorders and other medical conditions that could adversely affect a safety-sensitive employee’s alertness. Finally, FRA developed a Web site, the Railroaders’ Guide to Healthy Sleep, and issued rules that limit the hours that a passenger train operator may work and also mandate the implementation of PTC systems that reduce the probability of certain accidents, some of which may be due to fatigue.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
52	8/14/2013	R-13-19	<p>When you have made the determination in Safety Recommendation R-13-18, require railroads to use a reliable, valid, and comparable field test procedure for assessing the color discrimination capabilities of employees in safety-sensitive positions.</p>	<p><u>Open – Await Response.</u> See response to R-13-18.</p> <p>In a letter dated January 2, 2014, FRA explained that additional rulemaking is unnecessary to satisfy this recommendation. Rather, once FRA develops field testing standards for color discrimination capabilities, FRA intends to issue an interpretation establishing best practices and require each railroad that offers field testing to update its certification programs to describe the field testing procedures it intends to use. FRA will use the certification program approval process to approve or disapprove each railroad's field testing procedures and ensure that vision field testing is reliable, valid, and comparable.</p>	<p>Issue best practices and review railroad certification programs.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
53	8/14/2013	R-13-18	<p>Open NTSB Recommendation</p> <p>Determine what constitutes a reliable, valid, and comparable field test procedure for assessing the color discrimination capabilities of employees in safety-sensitive positions.</p>	<p>NTSB Classification and Actions Taken by FRA</p> <p>Open – Await Response. On January 2, 2014, FRA sent a letter to the NTSB explaining that FRA is in the process of seeking and collecting information that will allow it to establish best practices for conducting field tests involving color discrimination capabilities for the two types of operating employees that currently may be field tested under FRA’s regulations, which are locomotive engineers and conductors.</p> <p>FRA has already contacted the American Academy of Ophthalmology and the American Optometric Association for information.</p>	<p>Actions Needed to Be Taken by FRA</p> <p>FRA intends to consult with and obtain information from various resources, including medical experts, signal and train control experts, railroad management, and labor representatives. FRA will also consider the various signal system arrangements and displays, as well as other operating characteristics that may differ from railroad to railroad, when developing testing guidance.</p>

**EXHIBIT C: OPEN RAIL SAFETY RECOMMENDATIONS BY THE U.S. DEPARTMENT OF
TRANSPORTATION'S OFFICE OF INSPECTOR GENERAL (OIG) (AS OF DECEMBER 31, 2013)**

Item No.	Issue Date	Report Title and No.	Open OIG Recommendation	Actions Taken by FRA	Actions Needed to Be Taken by FRA
1	04/17/2013	FRA is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight CR-2013-070	Develop a policy that defines what constitutes qualified and continuous supervisory reviews and requires supervisors to create and maintain records of their reviews.	See response No. 3 in Exhibit C.	Finalize report and continue to audit for compliance.

2	04/17/2013	<p>FRA is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight CR-2013-070</p>	<p>Establish a formal process for inspectors to participate in the identification of training needs for new rules.</p>	<p>FRA specialists are required to discuss training needs with regional staff, and observe and provide feedback and training in the field. To achieve this recommendation, the Deputy Associate Administrator for Safety Compliance and Program Implementation convened a working group to include the RAs, union representatives, and Technical Training Standards Division and Human Resources staff to determine a mutually agreeable number of supervisory visits that the field supervisory specialists will need to perform each year to properly provide training for newly developed requirements. Based on the working group meetings, the Associate Administrator for Railroad Safety/Chief Safety Officer issued a policy directive for the field supervisory specialists reiterating the importance of regularly meeting with field staff in order to immediate guidance and feedback on their performance, and outlining the agreed-upon number of supervisory visits.</p> <p>Immediately following each visit, field supervisory specialists will be required to provide documentation of their observations to the RAs and the headquarters Staff Directors to ensure that the observations across the country are uniform and in compliance with the new regulations. The Deputy Associate Administrator for Safety Compliance and Program Implementation will also work with the RAs to ensure that these updated guidelines are consistently reflected in all of the specialists' critical performance objectives.</p> <p>In addition, FRA examined the allocation of resources among divisions, including the Rail and Infrastructure Integrity Division, and assessed the implications of reallocating resources to support implementation of the new standards.</p> <p>FRA has also begun auditing the field supervisory specialists' critical performance objectives to ensure that the criteria are uniform and conform to the new requirements. FRA intends to provide the OIG with the field supervisory specialists' plan for oversight visits.</p>	<p>Finalize report and continue to audit for compliance.</p>
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3	04/17/2013	FRA is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight CR-2013-070	Conduct an assessment of the way that RSAC is used to identify improvements that could improve efficiency.	<p>Since its inception, the RSAC has developed remarkable consensus on numerous complex and challenging regulatory matters. Nevertheless, FRA welcomes ideas to improve the RSAC's future efficiency and effectiveness, thereby further leveraging FRA's resources to produce safety solutions that are more responsive, flexible, and readily implemented. FRA solicited ideas from the RSAC participants in June 2013 and provided a month to submit comment. FRA received three comments, all of which were positive. In addition, FRA reviewed relevant Federal advisory committee best practices for efficiency opportunities.</p> <p>FRA anticipates providing OIG with a summary of this effort by June 2014.</p>	Provide the OIG with a summary of the findings.
4	04/17/2013	FRA is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight CR-2013-070	Develop a plan for completion of outstanding RSIA-required rulemakings. The plan should include milestones for completion and describe the Agency's rationale for prioritization of rulemakings.	<p>In the past, FRA has used critical path scheduling tools to balance resources and create accountability matrixes when determining timelines for completing rulemakings in a timely manner. The agency is now using project management software that is managed by the Office of the Secretary of Transportation to outline the agency's timelines for completing the remaining rulemakings. FRA provided the OIG with a list of the agency's priorities and detailed reasoning behind the prioritization of the rules. The software provides a record of the milestones and a schedule for achieving them.</p> <p>To explicitly fulfill this recommendation, FRA must generate reports from the management tool to provide the OIG with the status of the agency's progress towards achieving the milestones. These reports will include intermediate outcomes (NPRMs, RSAC working group meetings, requests for comments, etc.) to show the progression of the rulemakings. FRA provided the first quarterly report to the OIG and intends to provide the second quarterly report by June 2014.</p>	Provide second quarterly report. Continue completion of rulemakings.