



THE SECRETARY OF TRANSPORTATION

WASHINGTON, DC 20590

August 14, 2015

The Honorable John Thune
Chairman, Committee on Commerce, Science,
and Transportation
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

I am pleased to submit the enclosed report to Congress pursuant to Section 106 of the Rail Safety Improvement Act of 2008: *2014 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.*

The report identifies a total of six unmet statutory mandates as of December 31, 2014, and specifies actions to implement or address each of them. The report also identifies 68 open recommendations by the National Transportation Safety Board and 2 open recommendations by the U.S. Department of Transportation's Office of Inspector General.

The Department recognizes the significance of each unmet statutory mandate and open recommendation, and has focused its efforts on implementing or addressing each of them in an appropriate and timely manner. I would be pleased to update you on the status of any item that the report identifies, as well as address any additional questions.

I have sent similar letters to the Ranking Member of the Senate Committee on Commerce, Science, and Transportation and the Chairman and Ranking Member of the House Committee on Transportation and Infrastructure. If I can provide further information or assistance, please feel free to call me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anthony R. Foxx", with a long, sweeping underline.

Anthony R. Foxx

Enclosure



THE SECRETARY OF TRANSPORTATION

WASHINGTON, DC 20590

August 14, 2015

The Honorable Bill Nelson
Ranking Member, Committee on Commerce, Science,
and Transportation
United States Senate
Washington, DC 20510

Dear Senator Nelson:

I am pleased to submit the enclosed report to Congress pursuant to Section 106 of the Rail Safety Improvement Act of 2008: *2014 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*.

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I have sent similar letters to the Chairman of the Senate Committee on Commerce, Science, and Transportation and the Chairman and Ranking Member of the House Committee on Transportation and Infrastructure. If I can provide further information or assistance, please feel free to call me.

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Anthony R. Foxx

Enclosure



THE SECRETARY OF TRANSPORTATION

WASHINGTON, DC 20590

August 14, 2015

The Honorable Bill Shuster
Chairman, Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

I am pleased to submit the enclosed report to Congress pursuant to Section 106 of the Rail Safety Improvement Act of 2008: *2014 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.*

The report identifies a total of six unmet statutory mandates as of December 31, 2014, and specifies actions to implement or address each of them. The report also identifies 68 open recommendations by the National Transportation Safety Board and 2 open recommendations by the U.S. Department of Transportation's Office of Inspector General.

The Department recognizes the significance of each unmet statutory mandate and open recommendation, and has focused its efforts on implementing or addressing each of them in an appropriate and timely manner. I would be pleased to update you on the status of any item that the report identifies, as well as address any additional questions.

I have sent similar letters to the Ranking Member of the House Committee on Transportation and Infrastructure and the Chairman and Ranking Member of the Senate Committee on Commerce, Science, and Transportation. If I can provide further information or assistance, please feel free to call me.

Sincerely,

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Anthony R. Foxx

Enclosure



THE SECRETARY OF TRANSPORTATION

WASHINGTON, DC 20590

August 14, 2015

The Honorable Peter A. DeFazio
Ranking Member, Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Congressman DeFazio:

I am pleased to submit the enclosed report to Congress pursuant to Section 106 of the Rail Safety Improvement Act of 2008: *2014 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*.

The report identifies a total of six unmet statutory mandates as of December 31, 2014, and specifies actions to implement or address each of them. The report also identifies 68 open recommendations by the National Transportation Safety Board and 2 open recommendations by the U.S. Department of Transportation's Office of Inspector General.

The Department recognizes the significance of each unmet statutory mandate and open recommendation, and has focused its efforts on implementing or addressing each of them in an appropriate and timely manner. I would be pleased to update you on the status of any item that the report identifies, as well as address any additional questions.

I have sent similar letters to the Chairman of the House Committee on Transportation and Infrastructure and the Chairman and Ranking Member of the Senate Committee on Commerce, Science, and Transportation. If I can provide further information or assistance, please feel free to call me.

Sincerely,

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Anthony R. Foxx

Enclosure



U.S. Department
of Transportation

**Federal Railroad
Administration**

**2014 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**

May 2015

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Exhibits:

Exhibit A: Unmet Congressional Rail Safety Mandates (as of December 31, 2014)

Exhibit B: Open Rail Safety Recommendations by the National Transportation
Safety Board (NTSB) to the Federal Railroad Administration (FRA) (as of
December 31, 2014)

Exhibit C: Open Rail Safety Recommendations by the U.S. Department of
Transportation’s Office of Inspector General (OIG) (as of December 31, 2014)

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 2013 Report

To prepare this report on behalf of the Secretary of Transportation, the Federal Railroad Administration (FRA) relied on the report that it prepared as of December 2013 and submitted to Congress. FRA has noted below the mandates and recommendations that it either added to or removed from the December 2013 Report.

Treatment and Tracking 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, 2014.

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 six congressional rail safety mandates that were unmet as of December 31, 2014, and FRA's actions as of that date to implement them. FRA excluded congressional rail safety mandates that FRA previously implemented or that were not yet due as of December 31, 2014, from Exhibit A. The following items are unmet rail safety mandates that were listed in the December 2013 Report and that remained unmet as of December 31, 2014:

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. Hours of Service Regulatory Authority;
5. Railroad Safety Risk Reduction; and
6. Safe Rail Transport of Certain Radioactive Materials.

FRA excluded from Exhibit A the ongoing congressional rail safety mandates that require FRA to produce regular reports and conduct regular safety inspections with no specific endpoint. In addition, FRA excluded from Exhibit A the ongoing congressional rail safety mandates that require FRA to take periodic action with no specific deadline. FRA took action to fulfill those mandates, recognizes the need to take additional periodic action in the future, and has a process in place to meet those 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 FRA

Exhibit B lists the 68 NTSB rail safety recommendations to FRA that the NTSB classified as open as of December 31, 2014, and FRA's actions to address them. During the last several years, the NTSB has accepted this annual report to Congress as the main source of FRA's updates on the NTSB's open recommendations. However, the NTSB no longer does so. Therefore, during the last year FRA improved its processes and procedures to communicate with NTSB and address NTSB recommendations in a timelier manner.

Going forward, FRA will provide the NTSB with more regular and ongoing updates on open NTSB recommendations. FRA believes that increasing the level of communication with the NTSB will more clearly demonstrate to the NTSB the extent and rationale for FRA's particular responses to the NTSB recommendations. FRA believes this increased communication will help NTSB understand FRA's actions and may lead to the NTSB considering FRA's actions more favorably in the future.

In addition, FRA continues to use its internal NTSB Recommendation Tracking System to track each rail safety recommendation. FRA would be glad to provide additional information on this tracking system upon request. FRA is committed to ensuring that the 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 the initial response for each rail safety

recommendation that needs to be implemented, when appropriate, and to periodically update the implementation schedule.

Of the 53 recommendations listed in the December 2013 Report, the NTSB has closed the following safety recommendation numbers (Rec. Nos.) on or before December 31, 2014: R-97-15, R-97-17, R-02-05, R-08-09, R-08-10, and R-13-08, with the classification “Closed – Acceptable Action.” Accordingly, FRA has not listed these recommendations in Exhibit B.

The NTSB also closed R-14-03 with the classification “Closed – Acceptable Action.” The NTSB issued this recommendation on January 23, 2014, following the December 2013 Report. The NTSB, in R-14-03, recommended that FRA audit shippers and rail carriers of crude oil to ensure they are using appropriate hazardous materials shipping classifications, have developed transportation safety and security plans, and have made adequate provision for safety and security. Because the NTSB closed this recommendation before December 31, 2014, FRA excluded it from Exhibit B.

Breakdown of the NTSB Safety Recommendations to FRA that Were Open on December 31, 2014, by Classification

The classifications of FRA’s open NTSB recommendations as of December 31, 2014 are as follows:

A. Open – Acceptable Response

Item Nos. 1 and 2, corresponding to NTSB Rec. Nos. R-14-02 and R-14-01, are classified as “Open – Acceptable Response” and were issued after the December 2013 Report.

Item Nos. 3 through 5 and item 19, corresponding to NTSB Rec. Nos. R-13-38, R-13-19, R-13-18, and R-08-12, were reclassified as “Open - Acceptable Response” following the December 2013 Report.

Item Nos. 6 through 18 and 20 through 24, corresponding to NTSB Rec. Nos. R-13-07, R-12-43, R-12-42, R-12-40 through R-12-37, R-12-21, R-12-19, R-12-18, R-12-03, R-09-02, R-09-01, R-08-11, R-08-05, R-05-17, R-04-07, and R-01-02, remain classified as “Open – Acceptable Response,” as in the December 2013 Report.¹

¹ In a letter dated February 26, 2015, the NTSB notified FRA that it had closed R-12-43 with the classification “Closed – Acceptable Action.” In addition, in a letter dated March 17, 2015, the NTSB notified FRA that it had closed R-08-11 with the classification “Closed – Acceptable Alternate Action.” Finally, in three separate letters dated March 26, 2015, the NTSB notified FRA that it had closed R-08-05 and R-12-37 with the classification “Closed – Acceptable Action” and closed recommendation R-12-38 with the classification “Closed – Superseded.” Because these recommendations were closed following December 31, 2014, FRA kept these recommendations as “Open – Acceptable Response” in Exhibit B. See Item Nos. 7, 11, 12, 20, and 21 in Exhibit B.

B. Open – Unacceptable Response

Item Nos. 25 through 28 and items 36, 39 through 41, 43, 44, 46 through 50 corresponding to NTSB Rec. Nos. R-13-23 through R-13-20, R-12-16, R-09-03, R-08-07, R-08-06, R-06-07, R-05-09, R-01-17, and R-00-04 through R-00-01 were reclassified as “Open – Unacceptable Response” following the December 2013 Report.²

Item Nos. 29 through 35, 37, 38, 42, and 45 corresponding to NTSB Rec. Nos. R-13-06, R-13-05, R-12-41, R-12-27, R-12-22, R-12-20, R-12-17, R-10-02, R-10-01, R-07-02, and R-04-01 remain classified as “Open – Unacceptable Response,” as in the December 2013 Report.³

C. Open – Await Response

Item Nos. 51 through 68 corresponding to NTSB Rec. Nos. R-14-76 through R-14-74, R-14-70, R-14-69, R-14-49 through R-14-47, R-14-44, R-14-37 through R-14-33, R-14-17 through R-14-15, and R-14-11 are classified as “Open – Await Response” and were issued after the December 2013 Report.⁴

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 two open rail safety recommendations by the Department’s OIG that were open as of December 31, 2014, and FRA’s actions to address them.⁵

² In a letter dated March 17, 2015, the NTSB notified FRA that it closed R-05-09 with the classification “Closed – Acceptable Action.” In a letter dated May 15, 2015, the NTSB notified FRA that it reclassified R-01-17 as “Open – Acceptable Response” and closed R-00-01 as “Closed – Unacceptable Action.” Because these items were closed or reclassified following December 31, 2014, FRA kept these recommendation as “Open – Unacceptable Response” in Exhibit B. See Items 44, 46, and 50 in Exhibit B.

³ In a letter dated March 17, 2015, the NTSB notified FRA that it closed R-13-06 and R-04-01 with the classification “Closed – Unacceptable Action” and reclassified R-10-02, R-10-01, and R-07-02 as “Open – Acceptable Response.” Because these items were closed or reclassified following December 31, 2014, FRA kept these recommendations as “Open – Unacceptable Response” in Exhibit B. See Items 29, 37, 38, 42, and 45 in Exhibit B.

⁴ In a letter dated January 14, 2015, the NTSB notified FRA that it reclassified R-14-11 as “Open – Unacceptable Response.” In a January 23, 2015 letter, the NTSB notified FRA that it reclassified R-14-15 as “Open – Acceptable Alternate Response” and R-14-16 and R-14-17 as “Open – Acceptable Response.” In a letter dated February 26, 2015, the NTSB notified FRA that is reclassified R-14-48 as “Open – Unacceptable Response” and R-14-49 as “Open – Acceptable Response.” In a March 26, 2015 letter, the NTSB notified FRA that it reclassified R-14-37 as “Open – Unacceptable Response.” In an April 16, 2015 letter, the NTSB notified FRA that it reclassified R-14-33 through R-14-36 as “Open – Unacceptable Response” and R-14-44 and R-14-47 as “Open – Acceptable Response.” Because these items were reclassified following December 31, 2014, FRA kept these recommendations as “Open – Await Response” in Exhibit B. See Items 56 through 68 in Exhibit B.

⁵ The OIG closed these two remaining recommendations in March 2015. However, because they were completed after December 31, 2014, FRA kept them in Exhibit C.

On April 17, 2013, the OIG issued Report No. CR-2013-070 titled “*FRA Is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight.*” The report contained six recommendations involving the OIG’s assessment of FRA’s regulatory and enforcement programs related to the implementation of the RSIA. The OIG closed four of the six recommendations prior to December 31, 2014. The full report is available on the OIG’s Web site at www.oig.dot.gov.

Conclusion

DOT 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, 2014)

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions FRA Has Taken	Actions FRA Needs to Take
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.”	A Notice of Proposed Rulemaking (NPRM) was published on October 5, 2010, with comments due by December 6, 2010 (75 Fed. Reg. 61386). A draft of the final rule, including a response to comments received in the docket, has been prepared. The Office of Management and Budget (OMB) has designated this rulemaking as significant. The final rule has been delayed due to competing priorities and the need to consider more economical alternative ways to comply with statute. As of December 31, 2014, FRA was still considering alternative, more economical means of compliance.	Consider alternatives and issue final rule as necessary.

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions FRA Has Taken	Actions FRA Needs to Take
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.”	<p>An NPRM was drafted and submitted to the Office of the Secretary of Transportation (OST) in the summer of 2012, and returned to the FRA to fully consider options for moving forward and to work with the U.S. Department of Transportation’s (DOT) Office of Drug and Alcohol Policy and Compliance before resubmission. On July 28, 2014, the NPRM was published. 79 Fed. Reg. 43830. On September 25, 2014, in response to a request from the industry, the comment period was extended until November 25, 2014. 79 Fed. Reg. 57495.</p> <p>A draft final rule is in development. In conjunction with the publication of the final rule, FRA is developing an interactive training module to inform employees about the potentially impairing side effects of certain commonly used prescription and over-the-counter drugs. The module will be widely promoted and made available for free on FRA’s website.</p>	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 FRA Has Taken	Actions FRA Needs to Take
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.”	The Positive Train Control (PTC) effort under Section 104 of the Rail Safety Improvement Act of 2008 (RSIA) has delayed work on this project. A task statement was presented to FRA’s Railroad Safety Advisory Committee (RSAC) for acceptance during the September 23, 2010, meeting and was accepted. The working group has been formed and held its first meeting in March 2011. As of December 31, 2014, the dark territory rulemaking was being held in abeyance because technology implementation plans expected in the railroads’ risk reduction and system safety programs will likely obviate the need for this rule. See Item No. 5 below regarding the rulemakings under Section 103 of the RSIA.	Issue RRP and SSP final rules.

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions FRA Has Taken	Actions FRA Needs to Take
4	Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, Div. A, October 16, 2008.	Section 108(e) (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.”	Conduct at least two specified pilot projects involving examination and analysis of hours of service issues. In one project, a railroad must provide 10 hours of notice of the next assigned shift; in the other project, a railroad must assign employees to defined shifts subject to unscheduled calls, followed by shifts not subject to unscheduled calls (Section 108(e)). FRA must receive requests from railroads and rail labor organizations in order to fulfill this requirement properly. FRA has not received any requests, but continues to encourage participation and will prepare studies of each mandated pilot project if railroads and rail labor organizations submit suitable requests to conduct such a pilot project.	Continue efforts to encourage affected parties to participate in the at least two specified pilot projects and, when they are conducted, study these pilot projects.

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions FRA Has Taken	Actions FRA Needs to Take
5	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	“(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>FRA is conducting three rulemakings to meet this mandate. The System Safety Program (SSP) rulemaking will satisfy the mandate for intercity passenger and commuter railroads, and the Risk Reduction Program (RRP) rulemaking will satisfy the mandate for Class I freight railroads and railroads with inadequate safety records. The 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 NPRM regarding RRP for freight railroads was designated by OMB as significant and published on February 27, 2015. 80 Fed. Reg. 10950.</p> <p>An NPRM addressing SSPs 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. The SSP final rule has been designated by OMB as significant and is under review at OST.</p> <p>In addition, the Fatigue Management Working Group agreed on consensus rule text in June 2013 to recommend for a separate NPRM on fatigue management programs. As of December 31, 2014, FRA staff was drafting the preamble.</p>	<p>Issue the 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 rulemaking.</p>

Item No.	Short Title, Public Law Citation, and Enactment Date	Section and U.S. Code Citation, If Any	Unmet Statutory Mandate	Actions FRA Has Taken	Actions FRA Needs to Take
6	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 delivered its final report required by Section 15(a) to Congress on September 27, 2005. This portion of the mandate has been completed; however, the mandate will not be fully closed until Section 15(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 the Pipeline and Hazardous Materials Safety Administration’s (PHMSA) 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.

EXHIBIT B: OPEN RAIL SAFETY RECOMMENDATIONS BY THE NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) TO THE FEDERAL RAILROAD ADMINISTRATION (FRA)¹ (AS OF DECEMBER 31, 2014)

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
1	1/23/2014	R-14-02	Develop a program to audit response plans for rail carriers of petroleum products to ensure that adequate provisions are in place to respond to and remove a worst-case discharge to the maximum extent practicable and to mitigate or prevent a substantial threat of a worst-case discharge.	<p>Open – Acceptable Response. All railroads that transport oil in packaging with a capacity greater than 3,500 gallons must have a basic oil spill plan. FRA is performing an audit of the basic spill response plan in conjunction with audits and inspections of railroad route analyses and security plans. A comprehensive plan is only required when oil is transported in packaging with a capacity greater than 42,000 gallons. However, crude oil is not transported in tank cars with a capacity greater than 42,000 gallons. Therefore, a comprehensive oil response plan is not required by railroads transporting crude oil in tank cars.</p> <p>As a result on August 1, 2014, PHMSA, in consultation with FRA, published an Advance Notice of Proposed Rulemaking (ANPRM), developed with FRA’s assistance, titled “Hazardous Materials: Oil Spill Response Plans for High-Hazard Flammable Trains (HM-251B).” 79 Fed. Reg. 45079. In this ANPRM, PHMSA solicited comments regarding expanding the applicability of comprehensive oil spill response plans to trains carrying large volumes of petroleum crude oil. The comment period closed on September 30, 2014, and comments are currently being evaluated for the purposes of formulating an NPRM in that proceeding.</p>	<p>Finish audit of basic spill response plans in conjunction with FRA audits and inspections of railroad route analyses and security plans.</p> <p>Help PHMSA evaluate comments on the ANPRM and formulate and publish an NPRM.</p>

¹ NTSB recommendations are listed in the following order by NTSB classification: Item Nos. 1 through 24, “Open – Acceptable Response”; Item Nos. 25 through 50, “Open – Unacceptable Response”; and Item Nos. 51 through 68, “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 FRA Has Taken	Actions FRA Needs to Take
2	1/23/2014	R-14-01	<p>Work with the Pipeline and Hazardous Materials Safety Administration to expand hazardous materials route planning and selection requirements for railroads under Title 49 Code of Federal Regulations (C.F.R.) § 172.820 to include key trains transporting flammable liquids as defined by the Association of American Railroads Circular No. OT-55-N, and where technically feasible, require rerouting to avoid transportation of such hazardous materials through populated and other sensitive areas.</p>	<p><u>Open – Acceptable Response.</u> On August 1, 2014, PHMSA published an NPRM, developed with FRA, titled “Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains (HM-251).” 79 Fed. Reg. 45016. In this NPRM, PHMSA proposed among other items, expanding the current requirements for route analysis to routes over which high-hazard flammable trains travel. The comment period for the NPRM closed on September 30, 2014, and on December 31, 2014, the comments were being summarized and evaluated for the purposes of formulating a final rule.</p> <p>Further, via a voluntary agreement entered into between the railroad industry and DOT in February 2014, the industry agreed to apply protocols developed by the rail industry to comply with the existing route analysis requirements of 49 C.F.R. § 172.820(c)–(f) and (i) to the movement of trains transporting 20 or more railroad tank cars loaded with petroleum crude oil.</p> <p>On May 8, 2015, PHMSA published a final rule developed with FRA, titled Hazardous Materials: Enhanced Tank Car Standards and Operational controls for High-Hazard Flammable Trains (HM-251). 80 Fed. Reg. 26644. In this final rule, PHMSA defined high-hazard flammable train, and expanded the scope of the route analysis and selection regulations in 49 C.F.R. § 172.820 to include any train that meets the definition of a high-hazard flammable train. The amendments in this final rule ensure that routes for high-hazard flammable trains are analyzed and selected based upon the minimum 27 safety and security risk factors specified in Part 172, appendix D, which include population density and presence of sensitive areas along the routes.</p>	<p>Draft letter to NTSB regarding the publication of the final rule.</p>

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3	12/19/2013	R-13-38	Work with the Federal Highway Administration to (1) include guidance in the Manual on Uniform Traffic Control Devices (MUTCD) for the installation of advance warning devices, such as movement-activated blank-out signs, that specifically use the word "train" to indicate the preemption of highway traffic signals by an approaching train, and (2) amend the MUTCD to indicate that preemption confirmation lights, while not intended to provide guidance to the general public, would be useful in providing advance information on train movements to law enforcement and emergency responders.	<p><u>Open – Acceptable Response.</u> The Federal Highway Administration (FHWA) updated Chapter 8 of the MUTCD to include guidance on the design, use, and operations of blank-out signs at or near highway-rail and highway-light rail transit grade crossings.</p> <p>Pursuant to 23 C.F.R. § 655.601, <i>Purpose</i>, the MUTCD is approved for application on Federal-aid projects. Additionally, per 23 C.F.R. § 655.603, <i>Standards</i>, the MUTCD is the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel. Thus, highway authorities have been notified of MUTCD guidance on the design, use, and operations of the blank-out sign. This update to the MUTCD will allow highway authorities to use this traffic control device in a consistent manner.</p>	No FRA action is necessary.
4	8/14/2013	R-13-19	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.	<u>Open – Acceptable Response.</u> See response to R-13-18.	Additional research forthcoming. Establish and publish interpretation. Review railroad certification programs.

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5	8/14/2013	R-13-18	Determine what constitutes a reliable, valid, and comparable field test procedure for assessing the color discrimination capabilities of employees in safety-sensitive positions.	<p><u>Open – Acceptable Response.</u> FRA is collecting and analyzing information that will allow it to establish its interpretation of what constitutes a valid, reliable, and comparable field test procedure for assessing the color discrimination capabilities of locomotive engineers and conductors. FRA intends to publish its interpretation in 2015. The interpretation will provide notice to railroads that if a railroad intends to conduct field testing for assessing color discrimination capabilities of locomotive engineers and conductors, the railroad must ensure that the procedures for the testing are included in its FRA-approved locomotive engineer and conductor certification programs. If the testing is not outlined in a railroad’s existing programs, the railroad will need to amend its programs to specify the procedures that it will use. FRA will use the existing regulatory requirements for approving material modifications to certification programs to approve or disapprove each railroad’s field testing procedures, thereby ensuring that vision field testing is reliable, valid, and comparable.</p> <p>FRA has held five telephone conferences with vision experts representing the American Academy of Ophthalmology, the American Optometric Association, and two major railroads. The experts participating in these conferences discussed a variety of issues including: safety-critical aspects and indications of color light and color-position light railroad signals; the size, chromaticity, and intensity of color signal lights; and certain variations in signal hardware and operating rules that exist on different railroad properties. FRA plans to utilize all the data gathered to date through these efforts and to obtain and analyze additional information from industry, labor, and other experts to establish its interpretation of what constitutes a valid, reliable, and comparable field test.</p>	Continue to collect and analyze information. Establish and publish interpretation.

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6	3/8/2013	R-13-07	Require railroads to implement initial and recurrent crew resource management training for train crews.	<p><u>Open – Acceptable Response.</u> FRA agrees that crew resource management (CRM) training programs are effective in reducing accidents and incidents attributed to human error. FRA has undertaken 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 a technical brief detailing that effort were released in 2007. Pilot training materials that FRA developed as part of this effort are available at: http://tti.tamu.edu/group/rail/files/2011/07/PG_Eng.pdf.</p> <p>FRA also surveyed 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 part of a larger RRP or SSP where it is applicable. This approach 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>	Continue to encourage railroads to voluntarily develop CRM training programs.

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7	1/28/2013	R-12-43	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 C.F.R. § 234.11, "State Highway-Rail Grade Crossing Action Plans."	<p><u>Open – Acceptable Response.</u> FHWA notified FRA that FHWA's Web site has been updated to include current information regarding the Railway-Highway Grade Crossing annual reporting guidance. FRA reviewed this guidance document and concurred with its content. FRA has also provided a Web link to FHWA's Railway-Highway Grade Crossing annual reporting guidance from FRA's Highway-Rail Grade Crossing and Trespass Prevention Web site to allow for easier access by States (refer to http://www.fra.dot.gov/Page/P0040).</p> <p>In a February 26, 2015 letter, the NTSB closed this recommendation as "Closed – Acceptable Action."</p>	Action complete.
8	1/28/2013	R-12-42	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 C.F.R. § 234.11, "State Highway-Rail Grade Crossing Action Plans."	<p><u>Open – Acceptable Response.</u> FRA created a "strawman" outline for the model State Action Plan (SAP) and shared it with FHWA. Subsequently, FRA met with FHWA to provide support on the best strategy to further develop and disseminate the model SAP.</p> <p>FRA staff maintains contact with the States to support each State's implementation of its SAP. FRA tentatively plans to host a meeting in the late summer of 2015 with FHWA and the 10 States required by 49 C.F.R. § 234.11, <i>State highway-rail grade crossing action plans</i>, to submit an SAP, in order to evaluate each State's progress in implementing its SAP.</p> <p>Based on lessons learned from the initial SAPs developed by the States, FRA intends to develop a document outlining SAP best practices. FRA will publish these best practices once they are developed and finalized and work with FHWA to disseminate and promote the best practices with all States and other relevant parties. FRA will continue to work with FHWA to provide technical and/or program support as needed.</p>	Develop a document outlining SAP best practices and publish it. Provide technical and/or program support to FHWA as needed.

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9	1/28/2013	R-12-40	Once the side impact crashworthiness standards are developed in Safety Recommendation R-12-39, revise 49 C.F.R. § 238.217, "Side Structure," to require that new passenger railcars be built to these standards.	<u>Open – Acceptable Response.</u> See R-12-39.	Research forthcoming. Revise regulations as necessary.

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10	1/28/2013	R-12-39	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><u>Open – Acceptable Response.</u> FRA is actively studying side impact crashworthiness. In 2012, FRA’s RSAC Engineering Task Force considered the safety concerns of side impacts, and based on existing rail equipment designs, the task force proposed to maintain the existing standard. FRA believes that more data is needed to better understand how side impact collisions affect existing designs. FRA is currently directing the Volpe National Transportation Systems Center (Volpe) to conduct simulations of passenger cars undergoing significant side impacts with increasing side strengths to determine the adequacy of the current designs and the predictable safety implications of increasing the side strength. Volpe’s finding may provide a basis for new regulations specifically addressing side impact crashworthiness.</p> <p>FRA also agrees with the task force that existing side strength requirements have been effective in reducing the number and severity of injuries resulting from the targeted accident scenarios. The requirements are largely intended to maintain a survivable volume during a rollover to protect the occupants. However, the strength requirements also provide a reasonable level of side impact protection while recognizing the fact that less rigid sides may reduce the number of rollovers and help prevent secondary impacts with rigid and flying objects inside the car. If the sides were more rigid, absorbing less energy, the coaches may have overturned at high speeds and the number and severity of injuries would likely have multiplied. If passenger coaches overturn at high speeds, cars sustain severe damage and unrestrained bodies suffer many secondary impacts before the car comes to rest, which likely results in a greater number of severe injuries. This is why preventing cars from overturning is an essential goal of side impact safety. Therefore, FRA continues to believe that any side impact safety requirements should balance the desire to prevent cars from overturning and maintain a survivable volume.</p>	Additional research forthcoming.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
11	11/28/2012	R-12-38	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 C.F.R. Part 209.	<p><u>Open – Acceptable Response.</u> From June 2013 to September 2013, FRA conducted a review of all eight FRA regional safety operations to confirm compliance with railroad safety statutes and regulations. FRA interviewed all Regional Administrators (RA), Deputy Regional Administrators (DRA), discipline specialists, American Federation of Government Employees inspector representatives, and at least one Grade Crossing manager from each region. The audit confirmed that FRA’s inspection and enforcement program in all regions complies with applicable Federal railroad safety laws and regulations. The audit also revealed that FRA regularly holds technical classroom training on both the new and existing regulations, and has processes in place to ensure new and existing regulatory programs and operations are functioning as intended.</p> <p>In addition, FRA’s Office of Railroad Safety convened a working group to determine the number of requisite in-person overnight visits that supervisory specialists should conduct with field inspectors on an annual basis. The working group determined that each inspector should meet with his or her supervisory specialist a minimum of once per year to ensure consistent enforcement of new and existing regulations throughout the Nation’s railroad system, and to provide the inspectors with an opportunity to discuss policies and procedures with their supervisors.</p> <p>FRA is also enhancing its training for field supervisor specialists to focus in particular on leadership and management skills. The training emphasizes FRA expectations to achieve consistency in compliance with safety regulations and risk management skills. The overall objective is for regional managers to lead inspectors using the available National Inspection Plan (NIP), inspection and accident/incident data, and sound management skills to maximize the inspectors’ effectiveness.</p> <p>In a March 28, 2015 letter, the NTSB closed this recommendation as “Closed – Superseded.”</p>	Action complete.

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12	11/28/2012	R-12-37	Audit the waiver process to verify it is being managed as required by 49 C.F.R. Part 211.	<p><u>Open – Acceptable Response.</u> In response to this recommendation, FRA conducted an audit of its waiver process and found that the process of tracking waiver requests is adequate. It enables FRA to effectively track the status of waiver petitions and to timely and effectively respond to those petitions filed consistent with 49 C.F.R. Part 211. Importantly, the waiver petition that serves as the basis of this NTSB recommendation was filed with FRA in 1994 when the waiver process was purely manual and FRA’s ability to track the status of individual waiver requests was limited. However, in fiscal year 2000, after careful review of the then-existing waiver process, FRA developed the Controlled Correspondence Management (CCM) system and began managing the waiver process through the CCM database system. This enabled FRA to track the status of individual waiver petitions from initial receipt to final disposition by the Board. FRA continues to use, and build upon, the capabilities of the CCM system.</p> <p>In a March 26, 2015 letter, the NTSB closed this recommendation as “Closed – Acceptable Action.”</p>	Action complete.
13	5/10/2012	R-12-21	Revise 49 C.F.R. 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.	<u>Open – Acceptable Response.</u> FRA supports the further study of isolated cab crashworthiness. Based on FRA-initiated discussions, a Volpe working committee has developed project plans to further study locomotive cab crashworthiness, specifically including the crashworthiness of isolated cabs. FRA believes that Volpe’s results will provide a basis for FRA to consider appropriate regulation in this area. Therefore, it is prudent for FRA to wait for the results before revising FRA’s requirements on the protection of occupants of isolated locomotive operating cabs.	Additional research forthcoming.

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14	5/10/2012	R-12-19	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.	<u>Open – Acceptable Response.</u> See FRA’s response to R-12-17. FRA and an RSAC working group are developing guidance for implementing fatigue management systems.	Issue guidance documents as necessary.
15	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. Under the statutory requirements of the RSIA, a railroad developing an RRP must conduct a risk analysis that includes fatigue-related risks and an FMP. FRA is also 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.	Issue regulations as necessary. Continue research.

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16	3/2/2012	R-12-03	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' RRP required by the RSIA.	<p><u>Open – Acceptable Response.</u> Under Section 103 of the RSIA, FRA is developing three regulations, including one that will require certain passenger railroads to develop and implement SSPs and one that will require certain freight railroads to develop and implement RRP. Under the RSIA, these regulations must require Class I freight railroads, intercity passenger and commuter railroads, and railroads with inadequate safety performance, as determined by the Secretary of Transportation, to establish programs that systematically evaluate railroad safety hazards on their systems and manage the associated risks to reduce the numbers and rates of railroad accidents, incidents, injuries and fatalities. The RSIA also mandates that the regulations include requirements to conduct risk-based hazard analyses, engage in risk management, and provide certification signed by the chief railroad official responsible for safety.</p> <p>For both the SSP and RRP rules, FRA is working cooperatively with industry stakeholders on the RSAC to develop the specifics of the required components. In September 2012, FRA published an NPRM for the SSP rule. 77 Fed. Reg. 55372 (Sept. 7, 2012). FRA has developed a draft final rule, which is currently proceeding through clearance. As of December 31, 2014, FRA had also developed a draft NPRM for the RRP rule that was also proceeding through the clearance process. The RRP NPRM was published on February 27, 2015.</p>	Issue SSP final rule and RRP NPRM.
17	4/02/2009	R-09-02	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.	<u>Open – Acceptable Response.</u> See FRA's response to R-09-01.	Continue urging railroads to review their programs to identify ambiguities and misinterpretations.

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18	4/02/2009	R-09-01	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>Open – Acceptable Response. FRA has regulations addressing necessary and uniform basic signal aspects and their associated indications. These requirements include a description of the signal display that railroads must use to indicate stop, restricted speed, and proceed at authorized speed.</p> <p>FRA does study signal systems for trains through inspections and audits conducted on various properties to determine where conditions exist that present the potential for ambiguity and misinterpretation of the intended signal indication. FRA also urged each railroad to review its program of qualification for engineers and conductors to ensure they identify any such ambiguities or misinterpretations, and to specifically evaluate engineers and conductors during skills testing.</p> <p>In addition, with the RSIA’s mandated implementation of PTC, the functionality of the PTC onboard display units will ensure the meaning of all signal displays encountered are shown to the crew in a way that will eliminate any discrepancy or misunderstanding of the operating limitations of the signal displayed and its intended information. After the required railroads implement PTC, FRA may survey the remainder of non-PTC-equipped railroads to determine the extent to which conditions continue to exist that present the potential for ambiguity and misinterpretation of the intended signal indication. FRA could then use the results of this survey to determine whether issuance of a safety advisory would be appropriate.</p>	Continue urging railroads to review their programs to identify ambiguities and misinterpretations.

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19	5/22/2008	R-08-12	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 C.F.R. § 174.85.	<p><u>Open – Acceptable Response.</u> FRA and PHMSA are reviewing 49 C.F.R. Part 174, which applies to persons who accept and transport hazardous material by rail, and are identifying regulations that may be outmoded, ineffective, insufficient, or excessively burdensome. Among those regulations identified as potentially outmoded are the buffer car requirements at 49 C.F.R. § 174.85. FRA and PHMSA are currently deliberating the best path forward to modify 49 C.F.R. § 174.85's buffer car requirements, including considering rulemaking action to address this safety recommendation. On August 27-28, 2013, FRA and PHMSA held a public meeting with industry stakeholders to solicit input on a comprehensive review of safety regulations contained in 49 C.F.R. Part 174, and PHMSA and FRA have initiated a rulemaking (RIN 2137-AF07) to address certain comments received as a result of the public meeting. FRA received comments at the public meeting regarding the current buffer car requirements in 49 C.F.R. § 174.85.</p>	If necessary clarify and/or revise the requirements on buffer car use.

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20	5/22/2008	R-08-11	Require that railroads use methods that accurately measure rail head wear to ensure that deformation of the head does not affect the accuracy of the measurements.	<p><u>Open – Acceptable Response.</u> On July 12, 2012, FRA issued Safety Advisory 2012-04, which reminded 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 and rolling contact fatigue conditions. FRA also reviewed railroad programs concerning head wear through the 2012 RSAC Rail Failure Working Group Task 12-01. Due to insufficient data, the working group did not develop regulatory language. However, the working group did develop rail failure prevention guidance for industry use. The guidance outlines rail head wear guidelines that take into consideration class of track tonnage, rail section, rail wear, and other factors determined by the track owners. The working group also recommended that railroads put into place corrective actions they will take when the railroad engineering standards for rail head wear limitations are exceeded. FRA issued the working group guidance on August 8, 2014.</p> <p>In a March 17, 2015 letter, the NTSB closed this recommendation as “Closed – Acceptable Alternate Action.”</p>	Action complete.

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21	4/10/2008	R-08-05	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.	<p><u>Open – Acceptable Response.</u> On November 25, 2014, FRA published in the <i>Federal Register</i> Safety Advisory 2014-02, Roadway Worker Authority Limits—Importance of Clear Communication, Compliance With Applicable Rules and Procedures, and Ensuring That Appropriate Safety Redundancies Are in Place in the Event of Miscommunication or Error. See 79 Fed. Reg. 70269 and subsequent correction at 79 Fed. Reg. 71152 (December 1, 2014). In this safety advisory, FRA recommends that railroads take the following actions, among others, to promote the safety of roadway workers: 1) Increase monitoring of their employees for compliance with existing applicable rules and procedures; 2) Examine their train dispatching systems, rules, and procedures to ensure that appropriate safety redundancies are in place; and 3) If a railroad determines that appropriate safety redundancies are not in place, adopt electronic technology that would provide appropriate safety redundancies.</p> <p>In a March 26, 2015 letter, the NTSB closed this recommendation as “Closed – Acceptable Action.”</p>	Action complete.
22	12/12/2005	R-05-17	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.	<u>Open – Acceptable Response.</u> See response to Section 413 in Exhibit A.	Issue regulations as necessary.

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23	3/15/2004	R-04-07	<p>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><u>Open – Acceptable Response.</u> FRA is working with PHMSA on a rulemaking that will incorporate the latest version of the Association of American Railroads' (AAR) Specifications for Tank Cars (M-1002). These requirements will exceed the material properties in the DOT's Hazardous Materials Regulations (HMR).</p> <p>In addition, FRA's research as part of the Advanced Tank Car Collaborative Research Project is ongoing. The results of the FRA-sponsored project, published in 2013 (available at http://www.fra.dot.gov/eLib/details/L04420), evaluates the puncture force and energy of indenters with a variety of shapes, sizes, and different impact scenarios, as well as the correlation of steel properties to puncture resistance. In a separate but related effort, FRA performed full-scale crash tests to validate the results of the aforementioned research. In December 2013, FRA funded a side impact puncture test of a DOT-Specification 111 tank car that was performed at the Transportation Technology Center in Pueblo, CO. This test was followed by another FRA-funded side impact puncture test of a DOT-Specification 112 tank car in February 2014. Following each test, a coupon of the tank shell was acquired and tested to determine the properties of the steel and validate the constitutive element of the model. A report will be published detailing the tests and results. The results of the tests and subsequent materials analyses will be evaluated to determine whether a rulemaking is needed to change the current requirements for materials in the HMR. It should be noted that AAR, which is the delegated authority through the HMR to approval all tank car designs, has recently modified the tank car material standards in the M-1002 to include fracture toughness requirements.</p>	<p>Work with PHMSA to issue regulation.</p> <p>Additional research forthcoming.</p> <p>Report publication detailing the tests and results.</p>

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24	3/12/2001	R-01-02	Evaluate, with the assistance of Research and Special Programs Administration, the Association of American Railroads, 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.	<u>Open – Acceptable Response.</u> FRA initiated a project to evaluate the effects of environmental conditions on the determination of the start-to-discharge pressure of pressure relief valves. A set of valves with start-to-discharge pressures of 75 psig, 165 psig, and 280.5 psig are being tested by tank car facilities for FRA in various environments to simulate atmospheric extremes, which are encountered during transportation by rail. The first and second phases of testing were completed in October 2013 and July 2014 respectively. The third stage of testing is scheduled to take place during the winter of 2014-2015. Once completed, FRA will review the test data with industry representatives to determine the effects of environmental factors on the mechanical performance of pressure relief devices. FRA will use the conclusions to evaluate the adequacy of regulatory requirements regarding inspection intervals relative to mechanical performance reductions over time, as a result of environmental factors experienced in transportation.	Evaluate research results and work with PHMSA to issue regulations as necessary.
25	8/14/2013	R-13-23	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.	<u>Open – Unacceptable Response.</u> Under the RSIA and its implementing regulations in 49 C.F.R. Part 236, Subpart I, Positive Train Control Systems, each PTC host railroad must provide an annual report to FRA by April 16, 2011, 2012, 2013, and 2014, addressing its progress implementing PTC systems. All railroads have fulfilled their reporting obligations. Originally, FRA opted not to make these reports public because they are only a snapshot in time on implementation and may contain data marked "proprietary," the release of which may raise issues under the Trade Secrets Act, 18 U.S.C. 1905. Additionally, as railroads update their PTC plans, FRA makes their full revised plans, including the implementation schedules, available to the public via www.regulations.gov . However, FRA has made the 2014 annual PTC system progress reports available to the public via the same Web site with proprietary data redacted. As recommended, the reports can be accessed from FRA's Web site at http://www.fra.dot.gov/Page/P0786 . At this time, there is no longer a requirement for the railroads to continue to provide annual updates to FRA.	FRA awaiting the NTSB response.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
26	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 – Unacceptable Response. There is insufficient safety justification for requiring redundant storage of event recorder data somewhere remote from the lead locomotive consist. Most of the same data recorded from the lead locomotive is recorded on each of the trailing locomotives. This redundant storage, if required, would only marginally increase the likelihood of the information being recoverable in the event of an accident. Moreover, the likelihood of all event recorder memory modules being destroyed is so low, it makes the expense of transmitting the data off the lead locomotive and recording it elsewhere unjustifiable.</p> <p>In addition, because the event recorder data collected during the minutes and seconds immediately preceding an accident are the most vital for accident investigation, every lead locomotive operating in the United States would need to be transmitting all of its event recorder data in real time, all the time. This would create a demand from the railroads to acquire additional radio frequency bandwidth, beyond the already very challenging bandwidth demands for PTC implementation.</p> <p>The use of substantial amounts of bandwidth that would be required if locomotive event recorder data was constantly transmitted in real time for all operating lead locomotives to wayside facilities, would only exacerbate the current problem. The additional demands for bandwidth from Amtrak and the freight railroads due to PTC implementation in the same geographic area will further exacerbate the shortage.</p> <p>Isolated geographic areas face different challenges. While the communications infrastructure is being upgraded to accommodate PTC over about 40 percent of the national rail network, similar improvement would likely be needed on a large portion of the remaining 60 percent of the rail network to implement the NTSB's recommendation. This expansion would drive costs to an excessively high level with no direct safety benefit and only a nominal benefit to accident investigations, most of which FRA could complete successfully using the data stored in the crashworthy event recorder memory modules in the locomotives involved in accidents.</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 FRA Has Taken	Actions FRA Needs to Take
27	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><u>Open – Unacceptable Response.</u> Based on FRA’s review of available accident data, FRA has determined that railroads frequently identify as a contributing factor to railroad accidents undiagnosed and inadequately treated obstructive sleep apnea.</p> <p>As previously mentioned, FRA is currently developing a fatigue management regulation that would require railroads to analyze their fatigue risks, including consideration of certain specified risk factors, such as an employee’s medical history, and develop a fatigue risk management program to address those risks. The regulation would also require that a railroad submit its plan to FRA for approval.</p> <p>With respect to railroad employees’ illicit use of prescription and over-the-counter medications, FRA has taken the actions specified in FRA’s response to NTSB safety recommendations R-00-02 and R-00-03 to mitigate the risk of accidents associated with such illicit use of medications. Additionally, see FRA’s responses to NTSB safety recommendations R-12-16, R-13-18, and R-13-19, which describe FRA’s strategies to mitigate the risk for accidents attributable to sleep disorders.</p>	<p>Publish NPRM that addresses requirements of Risk Reduction Program Fatigue Management Plans.</p>
28	8/14/2013	R-13-20	<p>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><u>Open – Unacceptable Response.</u> FRA prescribes minimum Federal medical standards and provides medical fitness-for-duty guidance for the qualification and certification of locomotive engineers in 49 C.F.R. Part 240 and Appendix F to Part 240, and for the qualification and certification of conductors in 49 C.F.R. Part 242 and Appendix D to Part 242.</p>	<p>Action complete.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
29	3/08/2013	R-13-06	<p>Incorporate the use of handheld signal detection devices to aid in the enforcement of 49 C.F.R. Part 220, Subpart C.</p>	<p><u>Open – Unacceptable Response.</u> FRA reiterates from the 2013 report that 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 benefit both the employees and the agency, and therefore cause a negative impact on overall safety.</p> <p>In fact, at best, a signal detection device would only be of some practical utility in a yard-type environment. However, the use of an electronic device detection aid would be of no benefit even in many yard inspection circumstances because under Federal regulations the use of such devices are permitted as long as no crew member is on the ground or preparing the train for movement. In order to detect an active signal on a moving train, an inspector would have to stand close to the tracks of a moving train which could put the inspector’s life in danger from debris, fragmented brake shoes, and other potential airborne hazards.</p> <p>FRA concurs with the NTSB’s intent in evaluating new options in an effort to deter the prohibited use of electronic devices by railroad employees (e.g., FRA’s decision to commence regulatory activities to require installation of inward-facing locomotive cameras, as described above). However, it is FRA’s position that this particular recommendation is not appropriate to implement. FRA carefully evaluated various potential avenues to accommodate this safety recommendation, but was unable to reach any favorable conclusions with regard to possible implementation.</p> <p>In a March 17, 2015 letter, the NTSB closed this recommendation as “Closed – Unacceptable Action.”</p>	<p>Action complete.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
30	3/08/2013	R-13-05	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><u>Open – Unacceptable Response.</u> In response to this recommendation, FRA tasked RSAC with establishing the Recording Devices Working Group to consider the effects of railroads using recording devices to monitor all behavior in the locomotive cab, including crewmembers using signal-emitting portable electronic devices. This working group is currently evaluating the potential use of audio and/or video recordings of the crew in the locomotive cab and is due to submit its recommendations to FRA within the next year. Based on the group’s findings, FRA may consider establishing additional safety requirements to prevent the use of unauthorized electronic devices in locomotive cabs. However, at this time, there is not enough evidence to support the use of existing technology-based solutions.</p> <p>FRA is aware of current railroad testing of signal detection technology that could help detect the presence of signal-emitting portable electronic devices. However, FRA believes that at this time, such technology is not accurate enough to be effective and should not be required by safety regulation. This technology will not identify use of cellular devices in airplane (nontransmitting) mode, nor will it identify use of electronic game devices or electronic book readers which can be operated without transmitting a signal. This technology would provide reliable detection only if it is combined with video recordings depicting activity inside the locomotive cab. The cab recording provides confirmation that the signal originated in the cab, and identifies the specific individual in the cab using the electronic device. Moreover, FRA believes that these signal detection devices, even if reliable, would only provide redundant information, once cab video recordings become available.</p>	Continue working with the RSAC Recording Devices Working Group to develop recommendations.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
31	1/28/2013	R-12-41	Require that passenger railcar doors be designed to prevent fire and smoke from traveling between railcars.	<p><u>Open – Unacceptable Response.</u> The NTSB’s focus on the safety hazards caused by leaving the railcar end doors open during an evacuation overlooks the greater hazards that would be created if the doors had to be reopened for each instance of occupant egress or emergency responder access during an emergency. Both sliding and swinging doors interact closely with the surrounding carbody structure, at the hinge, track, jamb, pocket, and/or latch. Even minor distortion of that structure due to the forces of collision or derailment, or simply a change in the orientation of the door due to a car being significantly displaced from its upright position, could cause the door to fail to operate as intended. Thus, during an emergency, additional time and effort would be needed to operate the door, delaying egress and access through those doors. Adding weight or tighter seals to make the doors smoke and fire resistant would create a similar distortion and could cost lives in such an emergency. Also, it is not clear how the proposed fire and smoke resistant doors would affect the removable panels contained in existing emergency exit doors. If the panels were also modified to be self-closing to prevent the intrusion of fire and smoke, it would further delay passenger egress and emergency responder access during an emergency. The NTSB recommendation overlooks the need for a design balancing these competing safety objectives. FRA has no reported injuries from fire or smoke damage. FRA cannot cost justify the expense of installing fire doors on passenger cars without a safety justification. Based on the safety data, evacuating passengers quickly is a higher priority than reducing property damage from fire and smoke after all persons have left the car.</p>	FRA awaiting the NTSB response.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
32	5/24/2012	R-12-27	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><u>Open – Unacceptable Response.</u> The RSAC Dark Territory Working Group has considered safety technologies, including power-assisted switch machines and switch point monitoring systems as a primary topic. The Dark Territory Working Group met four times to develop recommendations for standards, guidance, regulations, or orders governing the development, use, and implementation of rail safety technologies in nonsignalized territory. As a result of these meetings, the Dark Territory Working Group developed a draft document recommending the creation of individual railroad plans for the maintenance, inspection, and testing of certain safety devices, including power-assisted switch machines and switch point monitoring systems, currently in use in nonsignalized territory.</p> <p>Several members of the Dark Territory Working Group, also involved with FRA’s SSP rulemaking under Section 103 of the RSIA, determined the Dark Territory Working Group’s draft document was similar to the technology safety plan component of the SSP rulemaking. Therefore, FRA recessed the Dark Territory Working Group until FRA’s RRP (similar to the SSP rulemaking but applies to freight rail) and SSP (applies to passenger rail) rulemakings are completed because their outcome may impact the Dark Territory Working Group’s recommendations. At that time, FRA will determine if the rulemakings sufficiently respond to these recommendations or if the working group needs to reconvene to address remaining issues.</p>	Determine whether RSAC Dark Territory Working Group needs to reconvene after completion of the RRP and SSP rulemakings.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
33	5/10/2012	R-12-22	Revise 49 C.F.R. Part 229 to require crashworthiness performance validation for all new locomotive designs under conditions expected in a collision.	<p><u>Open – Unacceptable Response.</u> It is FRA’s position that it is not feasible to create a complete catalog of “conditions expected in a collision,” and FRA disagrees with using such an approach to develop safety regulations. Certain conditions that can be expected based on experience are rare and are not a good basis for establishing broadly applicable performance standards. Locomotive crashworthiness scenarios include collisions with expected types of railroad equipment, such as freight cars and locomotives. To FRA’s knowledge, a collision of this nature has never occurred before. If regulations are reactively developed to cover extremely unusual accident scenarios, the resulting requirements will not properly address most accidents and will be only marginally effective and cost inefficient. FRA also notes that existing crashworthiness regulations do not prohibit or discourage performance-based methods of compliance. Under 49 C.F.R. § 229.209, FRA may consider proposals for the development and use of alternative crashworthy designs, including those based on performance standards.</p>	<p>Additional research forthcoming.</p> <p>Issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
34	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><u>Open – Unacceptable Response.</u> FRA has promulgated a rule that requires railroads to install PTC systems on approximately 70,000 miles of track and 18,000 locomotives. At least 38 railroads will implement PTC systems on portions of their properties. The scope of deployment is approximately one-half of all route miles of track in the United States. FRA is continually working with the AAR, the American Public Transportation Association (APTA), the American Short Line and Regional Railroad Association (ASLRRA), 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 PTC implementation by the statutory deadline. The rail industry continues to cite PTC technology's high negative return on investment as a reason not to install PTC systems on any lines where not required. Detailed cost-effectiveness studies of requiring PTC technologies to detect the rear of trains and prevent rear-end collisions at restricted speed show it will significantly add to the negative benefit-cost ratio that railroads widely state as a chief deterrent to implementing PTC technology beyond current statutory mandates.</p> <p>A PTC system is a system of systems. The development of PTC components requires railroads to obtain subject matter experts who can create and document component requirements, and then develop, install, and test the components. The railroads must analyze all integration issues and mitigate any potential or actual defects or risks. After PTC equipment suppliers develop and test the PTC system components, the individual railroads must integrate the components with each other and with the railroad's existing technology systems. From a timing perspective, PTC system components will not be ready for use until after development and testing by the suppliers and full-system integration and testing by each railroad.</p> <p>All these activities and schedules must be carefully planned, and be subject to modification based on experience gained in the development, implementation, testing, and deployment stages. As shown to date with the various railroads' installation of PTC systems, this technology is not available "off the shelf." Threats to the successful PTC system implementation include complications and reliability concerns that can increase exponentially, leading to complexities and uncertainties that compromise a safe and useful system. While 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, regarding 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.</p> <p>For FRA to enter into a rulemaking to add additional requirements to PTC system functionality at this late juncture would be counterproductive; railroads would have to redesign the already-approved PTC systems, seek re-approval, and restart the testing, evaluation, and installation phases. This would certainly result in additional delays in PTC system development and implementation. Therefore, FRA will not consider adding additional PTC system requirements until after completion of initial implementation.</p>	After completion of initial implementation of PTC determine whether additional regulations are necessary.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
35	5/10/2012	R-12-17	<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><u>Open – Unacceptable Response.</u> The RSIA mandates that FRA issue regulations requiring each covered railroad to include an FMP in its RRP that meets certain statutory requirements. In particular, the regulations must require covered railroads to review and revise their FMPs at least once every 2 years. The RSIA also requires FRA to review RRP plans to ensure that the railroads are complying with their plans. FRA is working on a third regulation to meet the fatigue management provisions in the RSIA. Additionally, once the final rule is issued, FRA anticipates that it will also publish a guidance document on fatigue risk management programs.</p> <p>FRA believes some railroads will elect to model the fatigue effects of their schedules using biomathematical models. The reliability, validity, and practical limitations of such models are, therefore, of critical importance to the effectiveness of fatigue management. As part of its long-term research emphasis into fatigue in the railroad industry, FRA has employed biomathematical models to examine the schedules or railroad employees involved in human factor-related accidents. In addition, FRA has used railroad data to validate two models in current use and to calibrate the models with one another. The report discussing validation and calibration can be found at http://www.fra.dot.gov/eLib/details/L04301#p1_z5_gD-kbiomathematical.</p> <p>Finally, FRA has developed a protocol that can be used to validate and calibrate any models that might be developed in the future (available at http://www.fra.dot.gov/eLib/details/L04703#p1_z5_gD_kbiomathematical). FRA will continue to learn from the practical application of biomathematical models as they are used as part of railroads' FMPs.</p>	<p>Additional research forthcoming.</p> <p>Issue regulations as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
36	5/10/2012	R-12-16	Require railroads to medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders.	<p><u>Open – Unacceptable Response.</u> FRA’s RSAC established the Fatigue Management Plans Working Group in December 2011. The Working Group met for the first time in March 2012, and, after a series of eight meetings, concluded its work in September 2013. The Working Group assisted FRA with the development of RRP rule text and a number of guidance documents that would respond to the requirements set forth in the RSIA. That rule text forms the basis for the text of the RRP proposed rule that FRA expects to be issued in the near future.</p> <p>Separately, in June 2012, FRA launched the Web site titled “The Railroader’s Guide to Healthy Sleep” (http://www.railroaderssleep.org/), which FRA and Volpe produced, in collaboration with experts in sleep health from the Harvard Medical School Division of Sleep Medicine and experts in educational media from the WGBH Educational Foundation. The Web site provides articles, videos, illustrations, and self-tests, and suggests practical steps railroaders may take to help combat fatigue. FRA continues to explore opportunities to partner with industry representatives and medical specialists in the railroad arena to develop guidance or other information to identify cost-effective methods and procedures for screening, diagnosing, and treating obstructive sleep apnea.</p> <p>In addition, FRA has issued regulations that limit the hours a passenger train operator may work and that mandate the implementation of PTC systems. See 49 C.F.R. Part 228, Subpart F and Part 236, Subpart I, respectively. FRA believes these initiatives have the potential to reduce the probability of accidents due to sleep disorders and other medical conditions that can cause fatigue as well as other impairments that affect an individual’s alertness.</p>	Publish NPRM that addresses requirements of Risk Reduction Program Fatigue Management Plans.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
37	2/23/2010	R-10-02	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.	<p><u>Open – Unacceptable Response.</u> See FRA’s response to R-10-01.</p> <p>In a March 17, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	<p>Identify and pursue appropriate options to promote accident investigation and prevention through the use of audio and image recording devices.</p> <p>Work with the RSAC Recording Devices Working Group to achieve consensus on technical details concerning inward and outward facing image recording devices in controlling locomotives.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
38	2/23/2010	R-10-01	<p>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.</p>	<p><u>Open – Unacceptable Response.</u> In June 2014, FRA convened the RSAC Recording Devices Working Group to discuss the installation and use of inward and outward facing recording devices in controlling locomotives. The Working Group has held four meetings. FRA has advised the Working Group that it intends to mandate via rulemaking the installation of inward and outward facing image video recording devices. Currently, the main topics of discussion in the Working Group are the technical details concerning the recording devices, chain of custody requirement, and data control and handling requirements. The Working Group has not yet achieved consensus on any of the issues related to the installation and use of recording devices to date. FRA is also exploring with the Working Group potential regulatory text governing the performance of operational tests via the use of locomotive video recordings. FRA intends to undertake a rulemaking proceeding to mandate installation of locomotive video cameras at the conclusion of the Working Group’s work in early 2015.</p> <p>In a March 17, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	<p>Identify and pursue appropriate options to promote accident investigation and prevention through the use of audio and image recording devices.</p> <p>Work with the RSAC Recording Devices Working Group to achieve consensus on technical details concerning inward and outward facing image recording devices in controlling locomotives.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
39	4/02/2009	R-09-03	Require that emergency exits on new and remanufactured locomotive cabs provide for rapid egress by cab occupants and rapid entry by emergency responders.	<p>Open – Unacceptable Response. FRA review of reported data for the last 15 years revealed one injury attributed to “opening” or “getting out” of a locomotive cab after an accident. Thus, it would be imprudent use of FRA resources to establish regulatory requirements to address a potential safety hazard that resulted in only one injury in the last 15 years.</p> <p>Moreover, the recent implementation of the new AAR Standard S-580, applicable to all new or rebuilt locomotives, increased the strength of the cab’s structure, which greatly increased the survivable volume for occupants. The greater survivable volume increases the likelihood that the exits will be accessible and thereby improves egress by cab occupants and entry by emergency responders. In addition, FRA believes that the NTSB has not fully considered the positive effects of the emergency responder training that FRA developed and distributed after this safety recommendation was originally made.</p> <p>Finally, further action in this area would conflict with FRA implementation of its responses to other related NTSB recommendations. For example, implementation of PTC requires railroads to install additional antennas on the cab roof limiting space available for potential escape/rescue hatches that could provide for rapid access and egress.</p>	FRA awaiting the NTSB response.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
40	4/10/2008	R-08-07	Revise the definition of "covered employee" under 49 C.F.R. 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 C.F.R. §§ 209.301 and 209.303.	<p><u>Open – Unacceptable Response.</u> As stated above in NTSB recommendation R-01-17, FRA has proposed in a July 2014 NPRM to expand the scope of its drug and alcohol testing to cover employees who perform MOW activities. As discussed in the NPRM, FRA believes that individuals who perform the safety-sensitive functions listed in 49 C.F.R. § 209.303 (other than performance of MOW activities) should not be added to the scope of 49 C.F.R. Part 219 because these individuals do not typically experience the same type of safety risks as individuals who perform MOW activities (who work on or around a railroad's track or roadbed).</p> <p>Furthermore, Section 412 of the RSIA authorizes FRA to expand its drug and alcohol testing program only to cover those employees who perform MOW activities. By proposing to expand the definition of MOW activities in the NPRM, the proposed regulation would cover the maintenance and communications functions listed in 49 C.F.R. § 209.303, that employees would perform on or around a railroad's track or roadbed, thus adding approximately 32,000 MOW employees and contractors to the scope of 49 C.F.R. Part 219. Finally, FRA's post-accident toxicological (PAT) testing data does not support the expansion of 49 C.F.R. Part 219's scope beyond that of individuals who perform MOW activities. FRA will revisit the issue of coverage for individuals who perform other 49 C.F.R. § 209.303 functions if their rate of positive post-mortem PAT test results should rise in the future.</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 FRA Has Taken	Actions FRA Needs to Take
41	4/10/2008	R-08-06	Require redundant signal protection, such as shunting, for MOW work crews who depend on the train dispatcher to provide signal protection.	<p><u>Open – Unacceptable Response.</u> An NPRM addressing this recommendation was published on August 20, 2012. 77 Fed. Reg. 50324. FRA specifically requested industry comment with regard to the issue of redundant signal protection in this NPRM. In the interim before a Final Rule is published, FRA published in the <i>Federal Register</i> Safety Advisory 2014-02, Roadway Worker Authority Limits—Importance of Clear Communication, Compliance With Applicable Rules and Procedures, and Ensuring That Appropriate Safety Redundancies Are in Place in the Event of Miscommunication or Error. See 79 Fed. Reg. 70269 and subsequent correction at 79 Fed. Reg. 71152 (December 1, 2014). In this safety advisory, FRA recommended that railroads that do not have appropriate safety redundancies in place with regard to inadvertent and unauthorized hi-rail movement outside the limits of authority, instruct roadway workers that prior to passing any absolute signal, a roadway worker should verify the limits of his or her authority.</p>	Issue regulations as necessary.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
42	4/25/2007	R-07-02	<p>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><u>Open – Unacceptable Response.</u> FRA is conducting a retrospective review of 49 C.F.R. Part 174, which governs the acceptance and transportation of hazardous materials by rail. This review was conducted in accordance with Executive Order 13563, Improving Regulation and Regulatory Review, to identify regulations that may be outmoded, ineffective, insufficient, or excessively burdensome. FRA and PHMSA are working together to determine the best path forward to modify, streamline, expand, or repeal regulations in 49 C.F.R. Part 174 that would, in part, address Safety Recommendation R-07-02 and the companion Safety Recommendation R-07-04 issued to PHMSA. FRA and PHMSA have initiated a rulemaking (RIN 2137-AF07) to address comments received as a result of a public meeting held on August 27-28, 2013. In addition, FRA and PHMSA are considering the use of technology by the railroads to update train consist information on a real time basis, which would identify the current location of all rail cars including the positions of rail cars containing hazardous materials.</p> <p>FRA is also cooperating with PHMSA on completion of the “Hazardous Materials Automated Cargo Communication for Efficient and Safe Shipping” (HM-ACCESS) project. PHMSA is considering two key initiatives under HM-ACCESS, both of which may lead to regulatory changes. First, PHMSA continues evaluating several special permit applications for the use of electronic shipping papers. Second, the Moving Ahead for Progress in the 21st Century Act (MAP-21) instructs PHMSA under § 33005 to conduct pilot tests to evaluate the feasibility and effectiveness of paperless hazard (e-HM) communication systems. PHMSA has completed a series of public meetings and has obtained stakeholder feedback regarding e-HM that will be helpful in the implementation of HM-ACCESS. FRA has agreed to actively participate in multi-modal pilot tests of electronic communications that PHMSA will be initiating in the coming months.</p> <p>In a March 17, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	<p>Modify, streamline, expand, or repeal regulations as necessary. Participate in PHMSA’s multi-modal pilot tests of electronic communications.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
43	6/07/2006	R-06-07	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.	Open – Unacceptable Response. See response to R-12-27.	Determine whether RSAC Dark Territory Working Group needs to reconvene after completion of the RRP and SSP rulemakings.
44	11/23/2005	R-05-09	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>Open – Unacceptable Response. FRA sponsored research, conducted by Veolia, to develop strategies, guidelines and training for locomotive crews on mitigation of distraction. Veolia completed the project at the end of September 2014, as scheduled. Veolia has conducted an outbriefing on the research and the final FRA technical report is in the editing process for publication. Veolia briefed the project as well as a training course developed in conjunction with the research done in FRA’s Cab Technology Integration Lab simulator. The training course is available to the industry as a copyrighted product of Veolia which teaches strategies to locomotive crews for managing distractions and the importance of sustained attention on the locomotive operating task. The FRA technical report will be made publically available after the completion of the final editing process.</p> <p>In a March 17, 2015 letter, the NTSB closed this recommendation as “Closed – Acceptable Action.”</p>	Action complete.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
45	3/15/2004	R-04-01	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>Open – Unacceptable Response. FRA finds current nondestructive test technology limited in reliability and effectiveness and not cost-effective. Current ultrasonic nondestructive test technology is only capable of performing a static ultrasonic test of the joint bars and requires the operator to manually utilize a portable test system. There is no ultrasonic technology capable of performing a test of the entire geometrical configuration of the joint bar from a moving vehicle. Until such technology is developed, this type of testing is economically impractical for railroads to utilize. Currently, several Class I railroads have begun using high resolution cameras for video inspection of joint bars as an alternative nondestructive testing. Once nondestructive joint bar inspection technology becomes more reliable and cost-effective, FRA commits to reassess its inspection requirements under 49 C.F.R. § 213.119 to include nondestructive joint bar inspection.</p> <p>In a March 17, 2015 letter, the NTSB closed this recommendation as “Closed – Unacceptable Action.”</p>	Action complete.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
46	9/24/2001	R-01-17	Modify 49 C.F.R. § 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>Open – Unacceptable Response. In July 2014, FRA published an NPRM proposing to expand the scope of its drug and alcohol program to cover employees who perform MOW activities (79 Fed. Reg. 43830, July 28, 2014). This NPRM proposed to narrow the current exemption to 49 C.F.R. § 219.201(b) by creating a new qualifying event, “Human-factor highway-rail grade crossing accident/incident,” which would specify when PAT testing would be required after a qualifying human-factor highway-rail grade crossing accident/incident. The NTSB supported this proposal in a comment submitted to the docket of the NPRM.</p> <p>In a May 15, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	Issue final rule.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
47	1/13/2000	R-00-04	<p>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 – Unacceptable Response.</u> From 2002 to 2009, FRA conducted two research projects specifically designed to determine the role played by common prescription and over-the-counter (OTC) medications in rail accidents. In the first project conducted from 2002 to 2009, FRA asked railroad employees who had been involved in reportable human-factor accidents to self-report their recent prescription and OTC drug use through the completion of surveys. The second project retested a sample of 150 frozen urine specimens that had previously been reported as negative for the substances in what was then FRA’s standard PAT testing panel. The specimens were then retested for commonly used prescription and OTC drugs with known risks of adverse side effects, such a pain relievers, antidepressants, and sedating antihistamines.</p> <p>In a 2012 NPRM, FRA cited the findings of these projects as a factor in its proposal to add routine PAT tests for certain noncontrolled substances with potentially impairing side effects (77 Fed. Reg. 29307, May 17, 2012). The results of these projects confirmed the use of prescription and OTC drugs was common among employees involved in human-factor rail accidents or in accidents that qualified for FRA PAT testing because of the fatalities, injuries, and/or significant damage to railroad equipment involved.</p> <p>On July 28, 2014, FRA published a NPRM proposing to expand the scope of its drug and alcohol program to cover employees who perform MOW activities. FRA is developing a final rule implementing the proposed expansion. FRA is also pursuing a research project specifically investigating the role of prescription and OTC drugs in fatal accidents.</p>	<p>Issue final rule.</p> <p>Begin research project investigating the role of prescription and OTC drugs in fatal accidents.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
48	1/13/2000	R-00-03	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 Safety Recommendation R-00-02 regarding the hazards of using specific medications when performing their duties.	Open – Unacceptable Response. FRA intends to develop an optional training module on the hazards of using specific medications. This module will be made available for free on FRA’s Web site to enable the rail industry to use “as is” or to provide a model for its own training on this subject. Once the training module is completed, FRA will publicize its availability to FRA’s railroad contacts, regional offices, inspectors, and other interested parties. FRA will also ask DOT’s Office of Drug and Alcohol Policy and Compliance to announce the new module to its distribution network and to make the module available on its Web site. In addition, FRA will conduct outreach at its own training sessions, at industry conferences such as the Railroad Roundtable, and at labor and trade association meetings.	Develop training module and publicize its availability.
49	1/13/2000	R-00-02	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.	Open – Unacceptable Response. See response to R-00-03.	Develop training module and publicize its availability.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
50	1/13/2000	R-00-01	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><u>Open – Unacceptable Response.</u> This recommendation is premised on the assumption that DOT has developed a list of approved medications. However, in an April 14, 2010 letter, DOT asked the NTSB to close the recommendation that DOT create such a list citing a “significant lack of science-based evidence from which to regulate an approved list.” DOT argued that the creation of such a list was impractical and potentially harmful to transportation safety. DOT stated in its response that it planned “no further action toward developing a list of approved medications,” and the NTSB classified DOT's response as “Closed.”</p> <p>For similar reasons, FRA has requested that the NTSB close this recommendation since it is clear that DOT does not intend to develop a list of approved medications that this recommendation asks FRA to implement. Without this list, FRA cannot establish procedures or criteria for the appropriate use of medications on that list. Furthermore, FRA objects to the development of such a list for reasons similar to those cited by DOT—the variability of any given individual's response to any specified drug and the risks of interactions amongst drugs make it impossible to develop a list of universally “safe” drugs, while the constant addition of new prescription and over-the-counter drugs would make any list of approved drugs obsolete upon publication.</p> <p>In a May 15, 2015 letter, the NTSB closed this recommendation as “Closed – Unacceptable Action.”</p>	Action complete.
51	12/30/2014	R-14-76	Once you have completed the actions specified in Safety Recommendation R-14-75, program your geometry inspection vehicles to detect combinations of conditions that require remedial action.	<u>Open – Await Response.</u> As FRA received this recommendation only recently, FRA is still in the process of preparing its response.	Review recommendation and take appropriate action.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
52	12/30/2014	R-14-75	Revise 49 C.F.R. Part 213 to define specific allowable limits for combinations of track conditions, none of which individually amounts to a deviation from Federal Railroad Administration regulations that requires remedial action, but, which when combined, require remedial action.	<u>Open – Await Response.</u> As FRA received this recommendation only recently, FRA is still in the process of preparing its response.	Review recommendation and take appropriate action.
53	12/02/2014	R-14-74	Develop a performance standard to ensure that windows (e.g., glazing, gaskets, and any retention hardware) are retained in the window opening structure during an accident and incorporate the standard into 49 C.F.R. § 238.221 and 49 C.F.R. § 238.421 to require that passenger railcars meet this standard.	<u>Open – Await Response.</u> As FRA received this recommendation only recently, FRA is still in the process of preparing its response.	Review recommendation and take appropriate action.
54	11/24/2014	R-14-70	Review and revise your National Inspection Plan procedures to ensure that sufficient inspection resources are being allocated to railroads having the greatest potential risk for high-consequence accidents.	<u>Open – Await Response.</u> As FRA received this recommendation only recently, FRA is still in the process of preparing its response.	Review recommendation and take appropriate action.
55	11/24/2014	R-14-69	When the proposed system safety program regulation is promulgated, develop and implement a robust performance-based audit program to ensure that railroads are maintaining effective system safety programs.	<u>Open – Await Response.</u> As FRA received this recommendation only recently, FRA is still in the process of preparing its response.	Review recommendation and take appropriate action.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
56	10/22/2014	R-14-49	Develop an algorithm using grade crossing inventory and accident history data to provide annual crash prediction estimates for private highway-railroad grade crossings, similar to your WBAPS tool for public grade crossings, and make the results easily accessible to states, railroads, and the public.	<p><u>Open – Await Response.</u> DOT accident prediction and severity formulas use data obtained from FRA’s Railroad Accident/Incident System (RAIS) and the Inventory. RAIS contains a record of every public and private highway-rail grade crossing collision that railroads have reported to FRA. This RAIS data, coupled with certain data in the Inventory, is the basis for existing accident prediction and severity formulas as related to public highway-rail crossings. At present, however, the Inventory does not contain sufficient data elements for the development of such formulas for private crossings. The development of an algorithm for accident prediction at private crossings will not be feasible until sufficient data is available to perform the necessary computations for the formula. Therefore, FRA is developing a final rule incorporating the proposals in its October 18, 2012 NPRM, “National Highway-Rail Crossing Inventory Requirements.” (77 Fed. Reg. 64077). This NPRM included a proposed requirement that railroads report new data elements to the Inventory for private highway-rail grade crossings. Six of the data elements proposed to be required are used in the algorithm for public highway-rail grade crossings. FRA will continue to evaluate the feasibility and utility of requiring railroads to supply additional data to the Inventory for private highway-rail grade crossings. Once sufficient data elements can be obtained, FRA will endeavor to develop and make available an algorithm for use by States, railroads, and the public for accident prediction at private crossings.</p> <p>In a February 26, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	Publish final rule. Continue to evaluate the feasibility and the utility of requiring railroads to supply additional data to DOT for private highway-rail grade crossings.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
57	10/22/2014	R-14-48	Require equivalent levels of reporting for both public and private highway-railroad grade crossings.	<p><u>Open – Await Response.</u> On October 18, 2012, FRA published an NPRM titled “National Highway-Rail Crossing Inventory Requirements.” 77 Fed. Reg. 64077. In the NPRM, FRA proposed to require railroads to submit information to the DOT’s National Highway-Rail Crossing Inventory (Inventory) about highway-rail crossings and pathway crossings through which the railroads operate. FRA proposed to require that railroads submit information about previously unreported and new public and private highway-rail grade crossings and pathway crossings and to periodically update the information in the Inventory at least once every 3 years. FRA also solicited public comment on a revised draft Inventory Form (the FRA form used for submitting data to the Inventory), along with a revised draft guide for completing the Inventory Form. The draft guide would direct railroads to submit data to the Inventory for private highway-rail grade crossings that railroads have not traditionally provided. After considering the comments received in response to the NPRM, FRA is developing a final rule incorporating the proposals related to private crossings. FRA believes that implementation of the final rule will lead to a significant improvement in the Inventory’s data related to private crossings. FRA will continue to evaluate the feasibility and utility of requiring railroads to report to the Inventory additional data related to private highway-rail grade crossings. FRA published the final rule on January 6, 2015, at 80 Fed. Reg. 746.</p> <p>In a February 26, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Unacceptable Response.”</p>	Publish final rule. Continue to evaluate the feasibility and utility of reporting to DOT data related to private highway-rail grade crossings.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
58	10/22/2014	R-14-47	Include in the Fatality Analysis of Maintenance-of-Way Employees and Signalmen Committee's publications data on all roadway worker fatalities, regardless of whether the employee is performing roadway worker tasks as defined by FRA.	<p><u>Open – Await Response.</u> While FRA is a member of the Fatality Analysis of Maintenance-of-Way Employees and Signalmen (FAMES) Committee, FRA does not direct or set the agenda for FAMES Committee activities. Therefore, FRA recommends that the NTSB redirect this recommendation to the FAMES Committee itself care of the FRA's Associate Administrator of Railroad Safety and Chief Safety Officer, who will convey the recommendation to the FAMES Committee. The FAMES Committee is planning to study roadway worker accidents and fatalities other than those involving trains or other on-track equipment striking roadway workers. This study would include incidents involving signal maintainer or other roadway workers not addressed by the requirements of 49 C.F.R. Part 214. In addition, during its study of roadway worker-related accidents, the FAMES Committee has reviewed accident investigations conducted by FRA that involved train strikes, but which were not classified as roadway worker protection-related fatalities (e.g., roadway worker driving a vehicle over a highway-rail grade crossing and struck by a train). Data from these nonclassified accidents was entered into the database that provides the source of the FAMES Committee's recommendations. However, this data was excluded from the recommendation reports that have been issued to date.</p> <p>In an April 16, 2015 letter, the NTSB changed the designation of this recommendation to "Open – Acceptable Response."</p>	Continue to participate with the FAMES Committee in the study of roadway worker fatalities.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
59	10/22/2014	R-14-44	Assist the Federal Transit Administration in establishing roadway worker protection rules, including requirements for job briefings.	<p><u>Open – Await Response.</u> In 2012, FRA staff made a presentation to Federal Transit Administration (FTA) personnel on the elements of FRA’s roadway worker protection (RWP) regulations that are applicable to the transit industry, including job briefing requirements. FRA staff also recently delivered a 2-hour webinar at APTA’s annual conference which addressed the critical aspects of FRA’s RWP regulations and FRA’s new, adjacent controlled track on-track safety requirements. The webinar specifically addressed how the track rule could be applied in the transit industry. FRA has also assigned an employee from its Passenger Division to assist FTA with surveying and identifying the various on-track safety practices utilized today in the transit industry. FRA staff welcomes opportunities to assist FTA in the development of an RWP regulation applicable to transit operations.</p> <p>In an April 16, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	FRA will formally advise FTA of its willingness to provide any necessary technical assistance in drafting any future potential RWP regulations applicable to transit operations.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
60	10/22/2014	R-14-37	<p>Include union participation in accident investigations similar to that allowed by the Occupational Safety and Health Administration. Seek authority from Congress to allow such participation, if necessary.</p>	<p><u>Open – Await Response.</u> Union participation in FRA accident investigations is inappropriate. The Occupational Safety and Health Administration (OSHA) solicits participation from representatives of employees when conducting inspections of the employees’ workplaces, not investigations of accidents. See 29 U.S.C. § 657(e).</p> <p>While the Secretary of Transportation may delegate his or her authority to inspect, examine, and test railroad equipment under 49 U.S.C. § 20107(a)(2), Congress did not give the Secretary authority to delegate the authority to conduct rail accident investigations. In addition, a labor union cannot be “an impartial investigator” under FRA’s accident investigation statute, because the interests of its members may conflict with the interests of the investigation, and, therefore, a labor union may not be authorized to investigate most railroad accidents. 49 U.S.C. § 20902(a)(1).</p> <p>Indeed, a major consideration in FRA’s accident investigation is enforcing rail safety regulations and issuing civil penalties, including civil penalties based on individual liability for an instance of a willful violation of an FRA safety regulation as well as disqualification from safety-sensitive service for an instance of an ordinary or willful violation of an FRA safety regulation that demonstrates unfitness for safety-sensitive service . Situations such as these would particularly create a conflict for union participation in an investigation.</p> <p>Moreover, FRA relies on cooperation from all parties in the regulated community to ensure that FRA can conduct a thorough and timely investigation and, in certain cases, take emergency regulatory action in order to preserve safety. If FRA were to conduct its investigations with direct participation from labor unions as investigative parties, railroads could perceive this special status accorded to labor unions alone as bias towards labor unions and their employees. This would likely inhibit the railroads from cooperating fully with the investigations and impede FRA’s access to important information in their custody. This would seriously impact not only FRA’s role as an investigator of accidents, but also FRA’s ability to effectively regulate the safety of the railroad industry.</p> <p>In a March 26, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Unacceptable Response.”</p>	<p>Provide further justification for non-adoption of recommendation.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
61	10/22/2014	R-14-36	Require initial and recurring training for roadway workers in hazard recognition and mitigation. Such training should include recognition and mitigation of the hazards of tasks being performed by coworkers.	<p><u>Open – Await Response.</u> FRA Railroad Workplace Safety regulations (49 C.F.R. Part 214) already require that roadway workers receive annual training associated with the risks associated with being struck by trains or on-track equipment. 49 C.F.R. § 214.345(e) specifically requires that roadway workers be annually trained on “the hazards associated with working on or near railroad tracks, including review of on-track safety rules and procedures.” In addition, FRA has recently published a final rule containing extensive training and qualification requirements for all safety-related railroad employees. 79 Fed. Reg. 66460. This rulemaking included minimum training standards for roadway workers as defined by existing 49 C.F.R. § 214.7, and contains an extensive refresher qualification requirement for roadway workers.</p> <p>FRA believes that these existing training requirements, if complied with, provide for the safety of roadway workers. In areas of occupational safety unrelated to railroad operations, OSHA’s regulations governing training and safety requirements generally apply.</p> <p>In an April 16, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Unacceptable Response.”</p>	FRA plans to issue a safety advisory reminding railroads of the need to ensure that roadway workers identify hazardous risks at a job location and mitigate those risks as appropriate. FRA will provide Federal and State track inspectors with hazard recognition training during inspectors’ 2015 FRA recurrency training classes.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
62	10/22/2014	R-14-35	Work with the Occupational Safety and Health Administration (OSHA) to establish clear guidelines for use by railroads and railroad workers detailing when and where OSHA standards are to be applied.	<p><u>Open – Await Response.</u> In 1978, FRA published a policy statement that outlined the respective areas of jurisdiction of FRA and OSHA in the railroad industry. See 43 Fed. Reg. 10583 (March 14, 1978). In the policy statement, FRA drew the jurisdictional line between “occupational safety and health” issues in the railroad industry and work that is related to “railroad operations” (i.e., the movement of equipment over rails), with FRA exercising authority over railroad operations and OSHA exercising authority over occupational safety and health issues that may be found in any industrial workplace. The policy statement also lists certain specific areas that fall within the exclusive jurisdiction of OSHA or FRA, depending on which agency is equipped to evaluate those risks and conditions. Because OSHA standards are enforced by OSHA, FRA believes that the NTSB should direct Recommendation R-14-35 to OSHA. FRA has already formally deferred to OSHA where OSHA provides regulations.</p> <p>However, not all OSHA programs enforce the Federal OSH Act of 1970. Some States have developed their own safety and health programs and enforce such programs. 29 U.S.C. § 667(b)(1). Federal OSHA approves and monitors the State plans. FRA is concerned that the imposition of additional FRA requirements may preempt, in some cases, more restrictive State regulations, and thereby reduce safety in the States so affected.</p> <p>In an April 16, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Unacceptable Response.”</p>	FRA staff will formally offer OSHA technical assistance in providing guidance to specific operations common to railroad MOW, signal, and electrical maintenance, and construction activities.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
63	10/22/2014	R-14-34	Revise your national inspection program to include specific emphasis on roadway worker activities, including emphasizing hazard recognition and mitigation in job briefings.	<p><u>Open – Await Response.</u> FRA’s NIP is a plan (guidance) based on prior accident, defect, and violation data that determines the relative percentage of time an inspector should spend investigating a given railroad. Using the NIP model to place specific emphasis on roadway worker activities could result in less emphasis on inspection for compliance with other regulations that result in a greater percentage of railroad accidents (e.g., roadway worker incidents are relatively rare in comparison to track-related defects that cause a large percentage of derailments and accidents). When roadway worker-related incidents are discovered, if necessary, FRA may conduct focused inspections that are pertinent to emphasizing compliance with that specific regulation. FRA inspectors regularly conduct inspection activities to check railroad compliance with 49 C.F.R. Part 214’s existing job briefing requirements.</p> <p>In an April 16, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Unacceptable Response.”</p>	FRA will provide Federal and State track inspectors with hazard recognition training during inspectors’ 2015 FRA recurrency training classes.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
64	10/22/2014	R-14-33	Revise the portions of 49 C.F.R. Part 214 for comprehensive job briefings for roadway workers to include the best practices in the Occupational Safety and Health Administration (OSHA) standards contained in 29 C.F.R. Parts 1910 and 1926.	<p><u>Open – Await Response.</u> OSHA job briefing regulations at 29 C.F.R. Parts 1910 and 1926 address, in part, the hazards involved in a job and require additional job briefings when there are changes that might affect the safety of the employees. These OSHA regulations are not railroad-specific, but apply across the spectrum of many occupations, including aspects of railroad MOW work. For example, the August 26, 2013 accident in Harspurville, New York involved contact with energized overhead power lines along a public road that traveled beneath a railroad bridge. This particular risk was unrelated to railroad operations (i.e., the movement of equipment over rails), and FRA does not have regulations that address such a safety risk. Therefore, OSHA’s existing regulations applied. Thus, FRA’s adoption of parallel regulations to address job briefings regarding general electrical hazards that are not related to railroad operations would be duplicative of OSHA’s existing regulations. Such duplicative requirements would likely yield no safety or economic benefits. FRA believes its efforts are best directed at ensuring compliance with its comprehensive existing regulatory requirements, as opposed to duplicating the already-existing requirements of other agencies with different areas of expertise.</p> <p>In an April 16, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Unacceptable Response.”</p>	Issue a safety advisory reminding railroads of the need to ensure that their workers identify any hazardous risks at job locations and mitigate them. FRA will also continue to instruct its inspectors to look for potential hazards and bring them to the railroad’s attention.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
65	8/22/2014	R-14-17	Collaborate with the Pipeline and Hazardous Materials Safety Administration and the American Short Line and Regional Railroad Association to conduct audits of short line and regional railroads to ensure that proper route risk assessments that identify safety and security vulnerabilities are being performed and are incorporated into a safety management system program.	<p><u>Open – Await Response.</u> FRA funded the development and beta testing of the Hazmat Transportation Risk Analytical Model (H-TRAM). This is a tool developed for short line and regional railroads to perform the safety and security risk evaluation in accordance with the Hazardous Materials Regulations. (See 49 C.F.R. § 172.820, <i>Additional planning requirements for transportation by rail.</i>) FRA has issued a request for proposals for an independent verification and validation of the model. Once this is completed, FRA will work with ASLRRRA to identify an entity that will host and maintain the software. For the hosting of H-TRAM, FRA has one candidate that has provided a proposal requesting FRA funding.</p> <p>The FRA Office of Railroad Safety’s Hazardous Materials Division has been performing routine audits in conjunction with security plan audits. Most recently, FRA audited the railroads participating in the beta testing of H-TRAM.</p> <p>In a January 23, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	Complete H-TRAM. Continue audits.
66	8/22/2014	R-14-16	Collaborate with the Pipeline and Hazardous Materials Safety Administration and the American Short Line and Regional Railroad Association to develop a risk assessment tool that addresses the known limitations and shortcomings of the Rail Corridor Risk Management Safety software tool.	<p><u>Open – Await Response.</u> See FRA’s response to R-14-17.</p> <p>In a January 23, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Response.”</p>	Complete H-TRAM. Continue audits.

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
67	8/22/2014	R-14-15	<p>Promulgate a regulation for permitting a train to pass a red signal aspect protecting a moveable bridge that is similar to the criteria for allowing a train to cross a broken rail as contained in 49 C.F.R. § 213.7(d) to ensure that the bridge has been inspected by a qualified employee before a train is authorized to proceed across the bridge.</p>	<p><u>Open – Await Response.</u> For the current fiscal year 2015, as part of FRA's National Safety Program Plan (NSPP), FRA is conducting a detailed moveable bridge inspection of all signalized moveable bridges in the United States to ensure that each such bridge is equipped with a bridge-locking mechanism that is functioning correctly. The NSPP provides that FRA will take enforcement action against owners of moveable bridges that fail to comply with the requirements of 49 C.F.R. § 236.312. During inspections, FRA inspectors will also discuss any unique conditions that may compromise moveable bridge safety.</p> <p>Following the Paulsboro accident, FRA issued Safety Advisory 2013-01, Passing Stop Signals Protecting Movable Bridges, in order to bring to the attention of moveable bridge owners the importance of using adequate span locking and exercising caution when allowing a train to pass a stop signal protecting a moveable bridge. This safety advisory emphasizes the importance of providing adequate training to those individuals authorized to determine if a moveable bridge is properly aligned and locked.</p> <p>On November 7, 2014, FRA published a final rule establishing minimum training standards for all safety-related railroad employees, as required by the RSIA. The purpose of this new final rule is to ensure that any person employed by a railroad or a contractor of a railroad as a safety-related railroad employee is trained and qualified to comply with any relevant Federal railroad safety laws, regulations, and orders, as well as any relevant railroad rules and procedures promulgated to implement those Federal railroad safety laws, regulations, and orders.</p> <p>In a January 23, 2015 letter, the NTSB changed the designation of this recommendation to “Open – Acceptable Alternate Response.”</p>	<p>Conduct moveable bridge inspections and enforcement action as necessary.</p>

Item No.	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions FRA Has Taken	Actions FRA Needs to Take
68	5/19/2014	R-14-11	Revise the Track Safety Standards specified in 49 C.F.R. § 213.233(b)(3), removing the exemption for high-density commuter railroads and requiring all railroads to comply with these requirements: (1) to traverse each main track by vehicle or inspect each main track on foot at least once every 2 weeks, and (2) to traverse and inspect each siding, either by vehicle or on foot, at least once every month.	<p><u>Open – Await Response.</u> To address the training of track inspectors, FRA recently issued a Final Rule entitled, "Training, Qualification, and Oversight for Safety-Related Railroad Employees," 79 Fed. Reg. 66460. The rule establishes training standards for safety-related railroad employees, including track inspectors. The rule requires most railroad employers to conduct annual written reviews of their training programs, and to conduct periodic oversight of their employees to determine compliance with Federal railroad safety laws, regulations, and orders applicable to them.</p> <p>In addition, FRA's Office of Research and Development is currently conducting research into track inspections through its Hybrid Track Inspection Study. The goal of the Hybrid Track Inspection Study is to determine the overall effectiveness of various methods of track inspection. Knowing the effectiveness (technically known as the probability of detection) of various methods of inspection may allow for the formulation in the future of optimal inspection methodologies and frequencies. Upon completion of the research project, FRA's Office of Railroad Safety will review the results and determine if the Track Safety Standards need to be revised to reflect new information.</p> <p>In a January 14, 2015 letter, the NTSB changed the designation of this recommendation to "Open – Unacceptable Response."</p>	Continue research into track inspections through Hybrid Track Inspection Study and review results.

**EXHIBIT C: OPEN RAIL SAFETY RECOMMENDATIONS BY THE U.S. DEPARTMENT OF
TRANSPORTATION'S OFFICE OF INSPECTOR GENERAL (OIG) (AS OF DECEMBER 31, 2014)**

Item No.	Issue Date	Report Title and No.	Open OIG Recommendation	Actions FRA Has Taken	Actions FRA Needs to Take
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. 2 in Exhibit C. While this recommendation was unmet as of December 31, 2014, DOT OIG's office closed this recommendation on March 11, 2015.	Action complete.
2	04/17/2013	FRA is Nearing Completion of Rules Required by the Rail Safety Improvement Act, but Needs to Improve Oversight CR-2013-070	Establish a formal process for inspectors to participate in the identification of training needs for new rules.	In May 2014, FRA reviewed the performance objectives and standards for the Office of Railroad Safety's RAs and DRAs. Subsequently, FRA modified the performance standards to include instructions that (a) DRAs assess their subordinate regional specialists' performance semi-annually, (b) RAs assess their deputies semi-annually, and (c) regional administrators provide their assessments to the Director of Regional Operations (formerly known as the Deputy Associate Administrator for Safety Compliance and Program Implementation). All other standards were satisfactory as written. In addition, FRA enhanced the supervisory specialists' performance plans. FRA updated the performance plans for supervisors in the headquarters divisions to include field evaluations of their specialists. While this recommendation was unmet as of December 31, 2014, DOT OIG's office closed this recommendation on March 11, 2015.	Action complete.