U.S. Department
of Transportation

**Federal Railroad
Administration**

REPORT TO THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE AND THE SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION: ACTIONS ON UNMET STATUTORY MANDATES AND OPEN RECOMMENDATIONS BY THE NATIONAL TRANSPORTATION SAFETY BOARD AND THE DEPARTMENT OF TRANSPORTATION'S INSPECTOR GENERAL REGARDING RAILROAD SAFETY

DECEMBER 2008

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Basis for this Report

This report responds to Section 106 of the Rail Safety Improvement Act of 2008 (RSIA of 2008), 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 Report by the Department's Office of Inspector General

In preparing this report on behalf of the Secretary of Transportation, the Federal Railroad Administration (FRA) relied upon a report prepared by the U.S. Department of Transportation's (DOT) Office of Inspector General (OIG) titled, "Actions Taken and Needed to Implement Mandates and Address Recommendations Regarding Rail Safety," Report Number CR-2008-072, August 26, 2008. The OIG report assessed FRA's progress in implementing relevant mandates established by Congress and addressing recommendations made by the National Transportation Safety Board (NTSB) and the OIG. Based on the report's findings, the OIG made recommendations to FRA to facilitate its implementation of Congressional rail safety mandates and improve its timeliness in addressing NTSB safety recommendations. A copy of this report is attached as an addendum.

As stated in its report, the OIG found that "FRA has addressed most Congressional mandates and NTSB and OIG recommendations regarding rail safety" and has done so "by issuing rules, completing studies, establishing oversight programs and processes, or disseminating model legislation to States" (Page 1). Specifically, as of April 30, 2008, the OIG found that "FRA closed 43 of 48 (90 percent) relevant Congressional mandates, 133 of 177 (75 percent) NTSB recommendations, and 12 of 16 (75 percent) of the OIG recommendations [that it] examined." Id.

Treatment of Mandates in the RSIA of 2008

The RSIA of 2008 introduced numerous new mandates regarding railroad safety. All but two of these mandates require actions to be taken after December 2008, and because their deadlines are in the future, FRA has not included them in this report as unmet statutory mandates.

FRA intends to meet each new statutory deadline to the extent practicable. FRA has implemented a new, centralized process for tracking and monitoring implementation of Congressional rail safety mandates, as recommended by the OIG. This process uses Microsoft SharePoint, an intranet-based application accessible for individuals to read and edit information to facilitate FRA's planning and managing of work assignments. In addition, the Office of Policy in the Office of the Secretary has a separate intranet-based tracking system using a different type of software. FRA has prepared a parallel legislative implementation plan for the RSIA of 2008 employing that software. FRA would be glad to provide additional information on these tracking systems and its progress in implementing the new mandates.

Discussion of Exhibit A, "Unmet Congressional Rail Safety Mandates"

Exhibit A lists FRA's three unmet Congressional rail safety mandates and actions to implement them. Congressional rail safety mandates that have already been implemented or are not yet due are excluded from Exhibit A.

FRA has excluded the four ongoing Congressional rail safety mandates that require FRA to take periodic action. FRA has taken action to fulfill each mandate, recognizes the need to take additional periodic action in the future, and has a process in place to meet each mandate; therefore, FRA does not consider the ongoing mandates unmet.

FRA would be glad to report separately on the status of any Congressional rail safety mandate excluded from Exhibit A.

Discussion of Exhibit B, "Open Rail Safety Recommendations by the National Transportation Safety Board"

Exhibit B is a list of the 47 open NTSB rail safety recommendations and FRA's actions to address them. In response to the OIG's Report, FRA has improved its processes and procedures to more timely address NTSB recommendations. In particular, FRA has enhanced its centralized tracking system for each rail safety recommendation and its processes for management oversight and follow-up. FRA has committed to ensuring that the NTSB receives an initial response to each recommendation within 90 days of issuance. FRA will also submit a tentative implementation schedule as part of that initial response for each rail safety recommendation that needs to be implemented and will periodically update the implementation schedule.

Exhibit B includes seven rail safety recommendations issued to FRA in April and May 2008 that were outside the timeframe covered by, and therefore not included in, the OIG Report. These safety recommendations are: R-08-005 through R-08-007 and R-08-009 through R-08-012. In addition, subsequent to the issuance of the OIG Report, by letter dated October 3, 2008, the NTSB informed FRA that it had closed Safety Recommendation R-03-021 with the classification "Closed—Exceeds Recommended Action." The recommendation is therefore not on this list.

Further, the NTSB recently notified FRA that it has closed three rail safety recommendations as a result of the RSIA of 2008. By letter dated December 9, 2008, the NTSB informed FRA that it had closed Safety Recommendation R-01-06 with the classification "Closed—No Longer Applicable." In Safety Recommendation R-01-06, the NTSB had recommended that FRA facilitate actions necessary for the development and implementation of positive train control (PTC) systems on main line tracks, establishing priority requirements for high-risk corridors such as those where commuter and intercity passenger railroads operate. The NTSB closed this recommendation because of the mandate in the RSIA of 2008 to implement PTC systems generally on Class I and passenger railroads. The NTSB also informed FRA that it had closed Safety Recommendations R-06-014 and R-06-015 with the classification "Closed—No Longer Applicable." The NTSB had recommended that FRA require railroads to use scientifically-based principles when assigning work schedules for train crewmembers, which consider factors that impact sleep needs, to reduce the effects of fatigue (R-06-014), and that FRA establish requirements that limit train crewmember limbo time to address fatigue (R-06-015). FRA had previously sought the statutory authority to address the NTSB's recommendations, and the NTSB has closed these recommendations as a result of the changes made to the hours of service laws and the authority granted in the RSIA of 2008.

Discussion of Exhibit C, "Open Rail Safety Recommendations by the Office of Inspector General"

Exhibit C is a list of the two open rail safety recommendations by the Department's Office of Inspector General and FRA's actions to address them.

Subsequent to the issuance of the OIG Report, FRA was informed on November 20, 2008, that the OIG will close recommendation A 01 from OIG Report No. MH-2006-016. On December 8, 2008, FRA was informed that the OIG will close recommendation E 01 from OIG Report No. MH-2004-065. As a result, neither recommendation is listed in Exhibit C.

Conclusion

FRA recognizes the significance of each unmet statutory mandate and each open rail safety recommendation of the NTSB and OIG regarding rail safety. FRA has focused its efforts on implementing each unmet mandate and addressing each open recommendation to the extent practicable. FRA would be glad to provide any additional information on its progress in doing so and on the status of any mandate or recommendation.

EXHIBIT A. UNMET CONGRESSIONAL RAIL SAFETY MANDATES[1]

(AS OF DECEMBER 23, 2008)

#	Short Title, Public Law Citation, and Enactment Date	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
1	Hazardous Materials Transportation Uniform Safety Act of 1990 P.L. 101-615 November 16, 1990	15 Amended Section 116(b) of the Hazardous Materials Transportation Act (Title 49, U.S.C. App. 1813)	"(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." The Railroad Transportation Study was submitted to Congress on September 22, 2005, but this mandate has not been completely fulfilled. FRA intends to perform additional research prior to amending the regulations.	The Department of Transportation's (DOT) Fiscal Year (FY) 2008 Appropriations Act included funds that the Federal Railroad Administration (FRA) plans to use to conduct additional research to assess conditions for the transportation of spent nuclear fuel. FRA plans to spend no more than about $100,000 to complete the necessary research and expects to issue a notice of proposed rulemaking (NPRM) in FY 2009.	Complete additional research. Prepare an NPRM and final rule, based on research results.

[1] The Explanatory Statement on the Department's FY 2008 Appropriations Act provided $200,000 to hire an independent consultant to evaluate FRA's use of penalties as an enforcement mechanism instead of $300,000 as proposed by the Senate. Consolidated Appropriations Act, 2008, Division K, Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2008, P.L. 110-161, December 26, 2007. The Appropriations Committees directed FRA to report within 90 days on the schedule of the evaluation and to provide the independent consultant's comprehensive report within 180 days on the evaluation's findings along with FRA's comments on the evaluation. On March 13, 2008, FRA met with staff of the Appropriations Committees and provided a tentative evaluation schedule to the Committees' staff. The staff agreed to extend the deadline from June 2008 to June 2009, and therefore this mandate is not included here as unmet.

#	Short Title, Public Law Citation, and Enactment Date	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions Needed to Be Taken by FRA
2	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users P.L. 109-59 August 10, 2005	Title IX, Section 9005 Amended Title 49, U.S.C. by adding new Section 20155	"(a) STANDARDS.—The Federal Railroad Administration shall— (1) validate a predictive model to quantify the relevant dynamic forces acting on railroad tank cars under accident conditions within 1 year after the date of enactment of this section."	DOT's Volpe National Transportation Systems Center (Volpe Center) conducted research to assess the effects of various types of train accidents on tank cars. The first phase consisted of developing a physics-based model to analyze the kinematics of rail cars in a derailment. The second phase consisted of developing a valid dynamic structural analysis model. The third phase consisted of assessing the damage created by punctures and fractures. The Volpe Center is preparing a final report on all three phases of its research.	Complete and issue final report.
3	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users P.L. 109-59 August 10, 2005	Title IX, Section 9005 Amended Title 49, U.S.C. by adding new Section 20155	"(b) OLDER TANK CAR IMPACT RESISTANCE ANALYSIS AND REPORT.—Within 1 year after the date of enactment of this section, the Federal Railroad Administration shall conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressure tank cars constructed before 1989. Within 6 months after completing that analysis the Administration shall transmit a report, including recommendations for reducing any risk of catastrophic fracture and separation of such cars, to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives."	The Southwest Research Institute (a subcontractor to FRA's contractor—the Volpe Center) has produced a research report on its work in analyzing and testing the impact resistance of the steels in the shells and heads of pre-1989 tank cars, including basic material characterization, tensile property evaluation, chemical makeup, and charpy v-notch toughness at three different temperatures. A final FRA report is expected to be published in January 2009.	Issue final research report. Consult with Transport Canada and private sector entities and develop risk reduction recommendations. Prepare and transmit a report to congressional committees.

EXHIBIT B. OPEN RAIL SAFETY RECOMMENDATIONS BY THE NATIONAL TRANSPORTATION SAFETY BOARD[1] (NTSB) (AS OF DECEMBER 23, 2008)

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
1	12/31/92	R-92-022	NTSB recommended that the Federal Railroad Administration (FRA) develop and promulgate, with the Department of Transportation's (DOT or Department) Research and Special Programs Administration (RSPA) [succeeded by the Pipeline and Hazardous Materials Safety Administration (PHMSA)] requirements for the periodic testing and inspection of rail tank cars that help to ensure the detection of cracks before they propagate to critical length. These requirements are to establish inspection intervals that are based on the defect size detectable by the inspection method used, the stress level, and the crack propagation characteristics of the structural component (requirements based on a damage-tolerance approach).	Open - Acceptable Response. RSPA published a final rule in September 1995, to increase the frequency of required testing and inspections of rail tank cars, based on accumulated and average mileage, and to authorize adjustment of inspection intervals, based on damage-tolerance analysis. To address damage tolerance, FRA sponsored two research projects. In July 2007, FRA told NTSB it would work to expedite completion of the research projects. A technical study providing a basic damage-tolerance approach is under final review, and additional studies are underway to support derivation of the probability of detection curves and application of these methods to rail tank car substructures.	Complete the research projects and disseminate findings and tools.

[1] NTSB recommendations are listed in the following order by classification: ## 1 through 25, "Open – Acceptable Response"; ## 26 and 27, "Open – Acceptable Alternative Response"; ## 28 – 41, "Open – Await Response"; and ## 42 through 47, "Open – Unacceptable Response."

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
2	08/28/97	R-97-015	NTSB recommended that FRA require all passenger cars have either removable windows, kick panels, or other suitable means for emergency exiting through the interior and exterior passageway doors where the door could impede passengers exiting in an emergency and that FRA take appropriate emergency measures to ensure corrective action until these measures are incorporated into minimum Passenger Car Safety Standards.	Open - Acceptable Response. On May 12, 1999, FRA published the Passenger Equipment Safety Standards for rail passenger service. These regulations addressed kick-out panels on doors for trains traveling 126 to 150 miles per hour (Tier II passenger equipment); however, these regulations did not address kick-out panels on doors for trains traveling at or less than 125 miles per hour (Tier I passenger equipment). These regulations did address egress through doors and windows for Tier I passenger equipment, and on February 1, 2008, FRA published a final rule amending the Passenger Equipment Safety Standards that further addressed egress requirements. FRA's Railroad Safety Advisory Committee's (RSAC) Emergency Preparedness Task Force reviewed the remaining safety issues and, through the Passenger Safety Working Group, reported recommendations for removable panels in certain interior doors to the full RSAC on February 20, 2008. In addition, FRA's Small Business Innovative Research Program continues to research the viability of integrating removable panels/windows capable of meeting Federal glazing standards into end-frame doors.	Complete research. Issue regulation on removable panels in certain interior doors.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
3	08/28/97	R-97-017	NTSB recommended that FRA require all passenger cars contain reliable emergency lighting fixtures that are each fitted with a self-contained independent power source and that FRA incorporate the requirements into minimum Passenger Car Safety Standards.	Open - Acceptable Response. On May 12, 1999, FRA published the Passenger Equipment Safety Standards. These regulations addressed emergency lighting for passenger cars ordered on or after September 8, 2000, or those placed into service for the first time on or after September 9, 2002. Subsequently, FRA worked with the American Public Transportation Association (APTA) to develop industry standards to improve emergency lighting systems, including survivability of the systems. On February 20, 2008, RSAC's Passenger Safety Working Group reported proposed rule language to the full Committee that would incorporate the new standards by reference.	Issue regulations.
4	09/16/98	R-98-056	NTSB recommended that FRA include in the Passenger Car Safety Standards a requirement for positive seat securement systems to prevent the disengagement and undesired rotation of seats in all new passenger cars purchased after January 1, 2000, and require the incorporation of such a system into existing passenger cars when they are scheduled for overhaul.	Open - Acceptable Response. On May 12, 1999, FRA published the Passenger Equipment Safety Standards. These regulations addressed seat securement in passenger cars, but did not address rotating-seat issues. Amtrak had previously improved its seat-locking mechanism, but the rotation of some seats continues to occur. FRA's Office of Research and Development examined alternative seat-locking designs and conducted dynamic testing of prototype seat-locking systems in cooperation with Amtrak for use by railroads and/or inclusion in future regulations. FRA and NTSB accident investigations have not established a nexus between seat rotation and passenger injuries.	Discuss findings with industry and issue revised regulations, as necessary.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
5	01/13/00	R-00-001	NTSB recommended that FRA establish, with assistance from experts on the effects of pharmacological agents on human performance and alertness, procedures or criteria by which train operating crewmembers who medically require substances not on DOT's list of approved medications may be allowed, when appropriate, to use those medications when performing their duties.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's RSAC to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. In 2007, RSAC's Medical Standards Working Group was established to address these recommendations and other fitness-for-duty concerns. The Working Group continues to develop recommendations for issuing a Notice of Proposed Rulemaking (NPRM) in 2009. Separately, FRA is preparing guidance materials for employees regarding use of prescription and over-the-counter drugs in connection with safety-critical duties. The guidance will be utilized within the framework of the proposed regulations.	Issue regulations.
6	01/13/00	R-00-002	NTSB recommended that FRA develop, then periodically publish, an easy-to-understand source of information for train operating crewmembers on the hazards of using specific medications when performing their duties.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's RSAC to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. In 2007, RSAC's Medical Standards Working Group was established to address these recommendations and other fitness-for-duty concerns. The Working Group continues to develop recommendations for issuing an NPRM in 2009.	Issue regulations.
7	01/13/00	R-00-003	NTSB recommended that FRA establish and implement an educational program targeting train operating crewmembers that, at a minimum, ensures that all crewmembers are aware of the source of information described in NTSB recommendation R-00-002 regarding the hazards of using specific medications when performing their duties.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's RSAC to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. In 2007, RSAC's Medical Standards Working Group was established to address these recommendations and other fitness-for-duty concerns. The Working Group continues to develop recommendations for issuing an NPRM in 2009.	Issue regulations.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
8	01/13/00	R-00-004	NTSB recommended that FRA establish, in coordination with DOT, the Federal Motor Carrier Safety Administration, the Federal Transit Administration, and the U.S. Coast Guard, comprehensive toxicological testing requirements for an appropriate sample of fatal highway, railroad, transit, and marine accidents to ensure the identification of the role played by common prescription and over-the-counter medications. FRA is to review and analyze the results of such testing at intervals not to exceed every 5 years.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's RSAC to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. FRA was already testing for benzodiazepines and barbiturates, in addition to the "SAMSA 5" drug groups and alcohol, in its post-accident program. FRA also conducted blind testing of extant archive samples to determine the prevalence of other-drug use in the population of accident-involved employees. FRA presented those results to NTSB and RSAC's Medical Standards Working Group in support of the need to include therapeutic drug use management in the forthcoming medical standards NPRM. FRA plans to issue an NPRM in 2009 to amend 49 CFR Part 219 to authorize testing of post-accident specimens for drugs other than controlled substances.	Issue regulations.
9	03/12/01	R-01-002	NTSB recommended that FRA evaluate, with the assistance of RSPA, the Association of American Railroads (AAR), and the Railway Progress Institute, the deterioration of pressure relief devices through normal service and then develop inspection criteria to ensure that the pressure relief devices remain functional between regular inspection intervals. FRA is to incorporate these inspection criteria into DOT's Hazardous Materials Regulations.	Open - Acceptable Response. An AAR task force collected over 5,000 inspection reports on pressure relief devices. After the AAR Tank Car Committee completes its review of the data and shares its findings with the Department, PHMSA and FRA plan to consider regulatory changes as appropriate.	Evaluate the results of the review and work with PHMSA to issue regulations, as necessary.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
10	09/24/01	R-01-017	NTSB recommended that FRA modify Title 49 of the Code of Federal Regulations, Section 219.201(b), as necessary to ensure that the exemption from mandatory post-accident drug and alcohol testing for those involved in highway-rail grade crossing accidents does not apply to any railroad signal, maintenance, and other employees whose actions at or near a grade crossing involved in an accident may have contributed to the occurrence or severity of the accident.	Open - Acceptable Response. In August 2001, an extensive revision of Title 49 of the Code of Federal Regulations, Section 219.201(b), concluded shortly before NTSB issued this recommendation. However, FRA agreed that the exemption portion of its alcohol and drug testing regulation should be narrowed from its present universal exclusion of all railroad employees from post-accident toxicological testing when highway-rail grade crossing accidents occur. To address this issue, FRA plans to initiate rulemaking in 2009.	Issue regulations.
11	02/15/02	R-02-001	NTSB recommended that FRA, for all railroads that install new or upgraded grade crossing warning systems that include crossing gates and that are equipped with event recorders, require that the information captured by event recorders include the position of the deployed gates.	Open - Acceptable Response. FRA currently has no regulation requiring the railroads install event recorders in highway-rail grade crossing signal systems, or specifically the information they record. FRA is contemplating opening Title 49 of the Code of Federal Regulations, Part 234 (Grade Crossing Signal System Safety), for possible rulemaking/revision and would raise this issue within that process.	Issue regulations, as necessary.
12	11/27/02	R-02-024	NTSB recommended that FRA develop a standard medical examination form that includes questions regarding sleep problems and require that the form be used, pursuant to Title 49 of the Code of Federal Regulations, Part 240, to determine the medical fitness of locomotive engineers; the form should also be available for use to determine the medical fitness of other employees in safety-sensitive positions.	Open - Acceptable Response. On September 21, 2006, FRA tasked RSAC with establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. The Medical Standards Working Group is preparing a standard form, including sleep disorder questions, and FRA plans to issue a proposed rule in 2009.	Issue regulations.
13	11/27/02	R-02-025	NTSB recommended that FRA require that any medical condition that could incapacitate, or seriously impair the performance of, an employee in a safety-sensitive position be reported to the railroad in a timely manner.	Open - Acceptable Response. On September 21, 2006, FRA tasked RSAC with establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. A proposed rule is being developed to address these specific concerns, with publication expected in 2009.	Issue regulations.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
14	11/27/02	R-02-026	NTSB recommended that FRA require that, when a railroad becomes aware that an employee in a safety-sensitive position has a potentially incapacitating or performance-impairing medical condition, the railroad prohibit that employee from performing any safety-sensitive duties until the railroad's designated physician determines that the employee can continue to work safely in a safety-sensitive position.	Open - Acceptable Response. On September 21, 2006, FRA tasked RSAC with establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. FRA will issue regulations based on the work completed by RSAC.	Issue regulations.
15	08/15/03	R-03-012	NTSB recommended that FRA, in cooperation with the Transportation Security Administration (TSA), develop and implement an accurate passenger and crew accountability system for all long-distance, overnight, and reserved passenger trains that will immediately provide an accurate count and identity of the people on board the train in case of emergency at any time during the trip.	Open - Acceptable Response. FRA entered into an agreement with TSA and Amtrak to fund a study through DOT's Volpe National Transportation Systems Center (Volpe Center) to examine what available technologies exist to develop an accurate passenger train manifest. In December 2005, FRA published a report that concluded an improved passenger manifest was possible, but the costs would be very substantial and benefits would be questionable. FRA has informed NTSB staff of these reports.	Await further response from NTSB.
16	03/15/04	R-04-001	NTSB recommended that FRA require all railroads with continuous welded rail (CWR) track include procedures (in the programs that are filed with FRA) that prescribe on-the-ground visual inspections and non-destructive testing techniques for identifying cracks in rail joint bars before they grow to critical size.	Open - Acceptable Response. On October 11, 2006, FRA published a regulation that required railroads establish a program for the periodic visual inspection of joint bars in CWR track by January 1, 2007. However, the regulation did not require non-destructive testing of joint bars on a periodic basis. FRA stated that there were insufficient engineering data to establish the effectiveness of non-destructive testing techniques as applied to joint bars in the service environment. FRA and the AAR (through the Transportation Technology Center, Inc.) are working on non-destructive testing techniques that may be useful in the future. In addition, on December 1, 2008, FRA published a proposed regulation to enhance requirements for CWR generally.	Develop and issue a specific regulation, when suitable technology becomes available. Issue general final rule.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
17	03/15/04	R-04-004	NTSB recommended that FRA conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressure tank cars constructed before 1989. At a minimum, the safety analysis should include the results of dynamic fracture toughness tests and/or the results of nondestructive testing techniques that provide information on material ductility and fracture toughness. The data should come from samples of steel from the tank shells from original manufacturing or from a statistically representative sampling of the shells of the pre-1989 pressure tank car fleet.	Open - Acceptable Response. In 2005, SAFETEA-LU required FRA to conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressurized tank cars constructed before 1989. To address this SAFETEA-LU requirement and NTSB's recommendation, the Southwest Research Institute (a subcontractor to FRA's contractor—the Volpe Center) has produced a research report on its work in analyzing and testing the impact resistance of the steels in the shells and heads of pre-1989 tank cars, including basic material characterization, tensile property evaluation, chemical makeup, and charpy v-notch toughness at three different temperatures. A final FRA report is expected to be published in January 2009.	Issue final research report.
18	03/15/04	R-04-005	NTSB recommended that, based on the results of FRA's comprehensive analysis to determine the impact resistance of steels in the shells of pressure tank cars constructed before 1989, as addressed in Safety Recommendation R-04-004, FRA establish a program to rank those cars according to their risk of catastrophic fracture and separation and implement measures to eliminate or mitigate this risk. This ranking should take into consideration operating temperatures, pressures, and maximum train speeds.	Open-Acceptable Response. FRA has preliminarily concluded that the results of the research reported under R-04-004 do not demonstrate a clear trend between chemical, tensile, or charpy v-notch toughness properties and tank car build date, and thus do not support creating a program specifically to rank the tank cars according to their risk. However, on December 23, 2008, PHMSA issued a final rule it developed jointly with FRA focusing on improving the crashworthiness protection of rail tank cars designed to transport poison inhalation hazard (PIH) materials. The rule, in part, requires that when retiring or removing tank cars from PIH service, car owners prioritize the retirement or replacement of tank cars constructed before 1989 with non-normalized steel in the head or shell.	Update NTSB on actions taken.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
19	03/15/04	R-04-006	NTSB recommended that FRA validate the predictive model FRA is developing to quantify the maximum dynamic forces acting on railroad tank cars under accident conditions.	Open - Acceptable Response. FRA sponsors ongoing research programs to evaluate train forces associated with derailments. On March 30, 2007, FRA, through the Volpe Center, reported its preliminary research findings at a public meeting on tank car safety. Those findings were incorporated into an NPRM PHMSA developed jointly with FRA and published on April 1, 2008, focusing on improving the crashworthiness protection of rail tank cars designed to transport PIH materials.	Complete and publish the research report. Work with PHMSA to issue final rule.
20	03/15/04	R-04-007	NTSB recommended that FRA develop and implement Tank Car Design-Specific Fracture Toughness Standards, such as a minimum average Charpy value, for steels and other materials of construction for pressure tank cars used for the transportation of the Department'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.	Open - Acceptable Response. FRA has preliminarily concluded that the results of the research reported under R-04-004 do not itself support taking specific actions related to testing for tank car steel toughness. However, the NPRM PHMSA developed jointly with FRA and published on April 1, 2008, addresses concerns regarding the use of non-normalized steels in tank car construction and focuses on improving the crashworthiness protection of rail tank cars designed to transport PIH materials. On December 23, 2008, PHMSA issued a final rule establishing interim design standards for rail tank cars designed to transport PIH materials. The final rule requires that cars used for the transportation of PIH materials be constructed of normalized steel.	Update NTSB on actions taken.
21	02/03/05	R-05-002	NTSB recommended that FRA require in Title 49 of the Code of Federal Regulations, Part 225 (Railroad Accidents/Incident: Reports Classification, and Investigations) that derailments caused by rail cracks originating from bond wire attachments be reported with a specific cause code and that information on the methods and locations of those wire attachments be provided in the accident narrative.	Open - Acceptable Response. In September 2008, FRA issued an NPRM to revise Title 49 of the Code of Federal Regulations, Part 225, including revisions to Appendix C of the train accident cause codes in FRA's Guide for Preparing Accident/Incident Reports.	Issue final rule.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
22	11/23/05	R-05-009	NTSB recommended that FRA develop guidelines for locomotive engineer simulator training programs that go beyond developing basic skills and teach strategies for effectively managing multiple concurrent tasks and atypical situations.	Open - Acceptable Response. FRA agreed that developing guidelines for locomotive engineer skill development that would contribute to good situational awareness was worthy of consideration, both as a further contribution to the quality of existing training programs and as a means of benchmarking the various programs. However, FRA has not identified the resources needed to initiate this action and does not plan to undertake it until such resources are identified.	Develop and issue guidelines.
23	12/12/05	R-05-017	NTSB recommended that FRA determine the most effective methods of providing emergency escape breathing apparatuses for all crewmembers on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of unintentional release and require railroads to provide these breathing apparatus to their crewmembers along with appropriate training.	Open - Acceptable Response. FRA continues to conduct a study to address all aspects of this recommendation. The study includes the types of emergency escape breathing apparatuses available, how the equipment should be used, what training would be required for its use, and the cost. This study was expected to be completed in March 2008; however, in February 2008, FRA required the study's contractor to make significant revisions and provide a draft final report for review in the near future. FRA assigned staff to this study, but no report due date has been specified. Meanwhile, on October 16, 2008, the Rail Safety Improvement Act of 2008 (P.L. 110-432, Div. A, RSIA of 2008) was enacted. Section 413 of the Act (49 U.S.C. 20166) mandates that the Secretary prescribe a rule by April 16, 2010, that would require, inter alia, that railroads provide certain emergency escape breathing apparatus for all crewmembers in the locomotive cabs of freight trains carrying hazardous materials that pose an inhalation hazard.	Complete the study. Issue regulations, as mandated, and as necessary.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
24	06/07/06	R-06-007	NTSB recommended that FRA require railroads to implement for all power-assisted switch machines, regardless of location, a formal commissioning procedure and a formal maintenance program that includes records of inspections, tests, maintenance, and repairs.	Open - Acceptable Response. FRA stated that it would conduct an internal review of the railroads' usage and practices concerning power-assisted switch machines in other than signaled territory and determine whether regulations are needed. Meanwhile, Section 406 of the RSIA of 2008 (49 U.S.C. 20164) mandates that by October 16, 2009, the Secretary prescribe "standards, guidance, regulations, or orders" governing rail safety technology, including switch technology, in non-signaled territory. This recommendation will be addressed in implementing that mandate.	Complete an internal review. Issue regulations and/or guidance as mandated by Section 406 of the RSIA of 2008.
25	10/25/06	R-06-019	NTSB recommended that FRA extend its Track Safety Standards to all classes of track having concrete crossties. The Track Safety Standards should address, at a minimum, the following: limits for rail seat abrasion; concrete crosstie pad wear limits; missing or broken rail fasteners; loss of appropriate toe load pressure; improper fastener configurations; and excessive lateral rail movement.	Open - Acceptable Response. In April 2006, FRA created a task force to study the safety aspects of concrete crossties. The task force's purpose was to determine a recommended course of action for a safety advisory on that subject. Findings from that initial effort were transferred to RSAC's Track Safety Standards Working Group, which reported consensus recommendations for a proposed rule that were accepted by the RSAC on December 10, 2008. FRA is preparing a proposed rule. Meanwhile, Section 403(d) of the RSIA of 2008 mandates that the Secretary prescribe a rule addressing concrete crossties by April 16, 2010. Section 403(d) states as follows: "In developing the regulations for class 1 through 5 track, the Secretary may address, as appropriate[,]" the aspects recommended by NTSB. This was already accomplished within the RSAC.	Issue regulations as mandated by Section 403(d) of RSIA of 2008.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
26	02/03/05	R-05-001	NTSB recommended that FRA require in Title 49 of the Code of Federal Regulations, Part 213 (Track Safety Standards), that rail cracks originating from bond wire attachments be identified as rail defects and that information be collected on the methods and locations of those attachments.	Open - Acceptable Alternative Response. FRA agreed that it was important to track rail cracks originating from bond wire attachments in the interest of prevention and for identifying the scope of the problem. However, FRA suggested an alternate approach to NTSB's recommendation and to the collection of information on the methods and locations of bond wire attachments. FRA added a new defect code to its Railroad Inspection System for Personal Computers (RSPIC). RSPIC provides inspectors with the ability to enter inspection data electronically via their personal computers, which facilitates data analysis. In April 2007, FRA also revised its Track Safety Standards Compliance Manual to provide guidance to field inspectors concerning rail bond welds. FRA's RSAC had been tasked to review this matter and in December 2008 agreed that no change to the Code of Federal Regulations was needed, based on the alternative action taken.	Update NTSB on actions taken and RSAC concurrence.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
27	12/12/05	R-05-014	NTSB recommended that FRA require that, along main lines in non-signaled territory, railroads install an automatically activated device, independent of the switch banner that will, visually or electronically, compellingly capture the attention of employees involved with switch operations and clearly convey the status of the switch both in daylight and in darkness.	Open - Acceptable Alternative Response. FRA strongly supported NTSB's interest in reducing the risk of train accidents caused by an improperly lined hand-operated switch, but suggested an alternate approach. FRA initiated a joint project with the BNSF Railway Company to implement the Switch Position Monitoring System, which detects an improper switch point alignment and conveys information automatically to the dispatcher. FRA is aggressively encouraging railroads to deploy similar technology. Norfolk Southern Railway Company and CSX Transportation, Inc. are implementing similar technology. Meanwhile, Section 406 of the RSIA of 2008 (49 U.S.C. 20164) mandates that by October 16, 2009, the Secretary prescribe "standards, guidance, regulations, or orders" governing rail safety technology, including switch technology, in non-signaled territory. This recommendation will be addressed in implementing that mandate.	Update NTSB. Identify plans to promote similar technology to the rail industry. Issue regulations and/or guidance as mandated by Section 406 of the RSIA of 2008.
28	12/21/06	R-06-024	NTSB recommended that FRA immediately require all rail passenger car seat backs be secured to the seat assembly.	Open - Await Response. FRA concluded that the intent of NTSB's recommendation had been met, based on its review of the requirements of existing safety regulations. On January 30, 2008, FRA sent a letter to APTA to advise the commuter railroads that passenger seat backs must be secured in accordance with the Passenger Equipment Safety Standards. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Closed - Acceptable Action." FRA has been in discussion with NTSB to close this recommendation.	FRA is awaiting a formal response from NTSB.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
29	12/21/06	R-06-025	NTSB recommended that FRA revise the language in Title 49 of the Code of Federal Regulations, Section 238.233, to define "seat" to include all components of the seat assembly, such as seat cushions and seat backs, that could become dislodged when subjected to accelerations specified in that section.	Open - Await Response. FRA concluded that the intent of NTSB's recommendation had been met, based on its review of the requirements of existing safety regulations. On January 30, 2008, FRA sent a letter to APTA to advise the commuter railroads that passenger seat backs must be secured in accordance with the standards. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Closed - Acceptable Action." FRA has been in discussion with NTSB to close this recommendation.	FRA is awaiting a formal response from NTSB.
30	12/21/06	R-06-026	NTSB recommended that FRA require all rail passenger car seat assemblies be dynamically tested to withstand the accelerations specified in Title 49 of the Code of Federal Regulations, Section 238.233, and require both upward and downward vertical acceleration tests.	Open - Await Response. FRA stated that the requirements of Title 49 of the Code of Federal Regulations, Section 238.233, are consistent with this recommendation. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Closed - Acceptable Action." FRA has been in discussion with NTSB to close this recommendation.	FRA is awaiting a formal response from NTSB.
31	12/21/06	R-06-027	NTSB recommended that FRA establish crashworthiness standards for passenger car body floor structure systems.	Open - Await Response. FRA stated that establishing crashworthiness standards for the floor structure would not provide any increase in collision safety. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Closed - Acceptable Action." FRA is awaiting a formal response from NTSB.	FRA is awaiting a formal response from NTSB.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
32	04/25/07	R-07-001	NTSB recommended that FRA require railroads ensure that the lead locomotives used to operate trains on tracks not equipped with a positive train control system are equipped with an alerter.	Open - Await Response. In October 2007, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Open - Acceptable Action." FRA is awaiting a formal response from NTSB. FRA's RSAC Locomotive Standards Working Group has reached tentative agreement to recommend that FRA amend the Locomotive Safety Standards to require alerters on all new freight locomotives operated at speeds exceeding 25 mph and within five years for each lead freight locomotive operated at speeds exceeding 25 mph. The AAR has adopted an alerter standard for freight locomotives, after consulting with the Working Group, and passenger locomotives are subject to requirements for alerters in Title 49 of the Code of Federal Regulations, Part 238.	FRA is awaiting a formal response from NTSB. Complete details in the RSAC and issue regulations.
33	04/25/07	R-07-002	NTSB recommended that FRA assist PHMSA in developing regulations to require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.	Open - Await Response. In October 2007, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Open - Acceptable Action." FRA is awaiting a formal response from NTSB. FRA regulations require that information on the identity and location of hazardous materials shipments on a train be maintained for the benefit of emergency responders. However, with FRA's encouragement, the AAR issued a circular offering to provide hazardous materials information on the top 25 commodities to local emergency response organizations to assist in training and preparing for emergencies. In addition, with FRA's encouragement, CSX Transportation, Inc. and Chemtrec established a real-time information process that provides car content and train consist information on a "one-call" basis. FRA continues to evaluate this process to determine if additional regulations are necessary.	FRA is awaiting a formal response from NTSB. Issue regulations, as necessary.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
34	04/25/07	R-07-003	NTSB recommended that FRA require the installation of a crash- and fire-protected locomotive cab voice recorder, or a combined voice and video recorder (for the exclusive use in accident investigations and with appropriate limitations on the public release of such recordings) in all controlling locomotive cabs and cab car operating compartments. The recorder should have a minimum 2-hour continuous recording capability, microphones capable of capturing crewmembers' voices and sounds generated within the cab, and a channel to record all radio conversations to and from crewmembers.	Open - Await Response. In October 2007, FRA sent a letter to NTSB requesting this recommendation be reclassified as "Open - Acceptable Action." FRA is awaiting a formal response from NTSB. FRA has brought proposals for response to this recommendation before two RSAC working groups, but no agreement was reached. In the new Administration, FRA will explore a compromise approach to implementation of this recommendation that can support accident investigation needs and also assist in risk reduction.	FRA is awaiting a formal response from NTSB. Issue regulations, as necessary.
35	04/10/08	R-08-005	NTSB recommended that FRA advise railroads of the need to examine their train dispatching systems and procedures to ensure that appropriate safety redundancies are in place for establishing protection and preventing undesired removal of protection for roadway workers receiving track occupancy authority.	Open – Await Response. In September 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Closed – Acceptable Action." FRA is awaiting a formal response from NTSB. FRA intends to issue a safety advisory to inform railroads of the dangers associated with granting and releasing exclusive track occupancies and the importance of redundant protection. FRA brought these concerns to RSAC's attention in September 2008 and will continue to raise them in industry meetings.	FRA is awaiting a formal response from NTSB. Issue safety advisory.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
36	04/10/08	R-08-006	NTSB recommended that FRA require redundant signal protection, such as shunting, for maintenance-of-way work crews who depend on the train dispatcher to provide signal protection.	Open – Await Response. In September 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Open – Acceptable Response." FRA is awaiting a formal response from NTSB. FRA is preparing an NPRM to amend the roadway worker protection requirements in Title 49 of the Code of Federal Regulations, Part 214. As part of the rulemaking process, FRA will analyze all available options that would allow redundant signal protection for maintenance-of-way work crews. If a reasonable procedure is found, FRA will consider full implementation of this recommendation.	FRA is awaiting a formal response from NTSB. Issue regulations, as necessary.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
37	04/10/08	R-08-007	NTSB recommended that FRA revise the definition of "covered employee" under Title 49 of the Code of Federal Regulations, 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 Title 49 of the Code of Federal Regulations, Sections 209.301 and 209.303.	Open – Await Response. In September 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Open – Acceptable Response." FRA is awaiting a formal response from NTSB. Since the inception of the railroad alcohol/drug program in 1986, FRA has required testing of any railroad employee involved in a train incident or train accident, regardless of craft. FRA is concerned that the scope of implementing this safety recommendation involves other crafts for which there is little historical safety data and that the recommendation raises other implementation issues. FRA had begun a comprehensive study and review of this matter; meanwhile, Congress weighed these issues and mandated in Section 412 of the RSIA of 2008 that maintenance-of-way employees be included in the existing alcohol/drug program by October 16, 2010. Accordingly, FRA will proceed to implement the mandate; and, in connection with this action, FRA will request public comment on inclusion of employees performing other safety-sensitive functions.	FRA is awaiting a formal response from NTSB. Complete study and review of implementing the recommendation. Issue regulations.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
38	05/22/08	R-08-009	NTSB recommended that FRA review all railroads' internal rail defect detection procedures and require changes to those procedures as necessary to eliminate exceptions to the requirement for an uninterrupted, continuous search for rail defects.	Open – Await Response. In August 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Open – Acceptable Response." FRA is awaiting a formal response from NTSB. The Rail Integrity Task Force of RSAC's Track Safety Standards Working Group has been charged with examining internal rail flaw inspection procedures and systems within the regulated community, identifying any deficiencies in the procedures or systems, and making necessary recommendations to address them. FRA has also established the Rail Integrity Group as part of its Track and Structures Division to review all railroads' internal rail defect detection procedures and recommend changes, as needed, to ensure that an uninterrupted, continuous search for rail flaws is conducted by the railroad. In addition, FRA has implemented a rail flaw detection audit process as part of its National Safety Program Plan.	FRA is awaiting a formal response from NTSB. Continue FRA review and monitoring. Issue regulations, as necessary, based on RSAC recommendations.
39	05/22/08	R-08-010	NTSB recommended that FRA require railroads to develop rail inspection and maintenance programs based on damage-tolerance principles, and approve those programs, and include in the requirement that railroads demonstrate how their programs will identify and remove internal defects before they reach critical size and result in catastrophic rail failures. NTSB also recommended that each program take into account, at a minimum, accumulated tonnage, track support, residual stresses in the rail, rail defect growth rates, and temperature differentials.	Open – Await Response. In August 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Open – Acceptable Response." FRA is awaiting a formal response from NTSB. FRA intends to address this recommendation with the assistance of RSAC's Track Safety Standards Working Group. FRA is also funding additional research to enhance rail flaw detection technology.	FRA is awaiting a formal response from NTSB. Issues regulations based on RSAC recommendations.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
40	05/22/08	R-08-011	NTSB recommended that FRA require railroads use methods that accurately measure rail head wear to ensure that deformation of the head does not affect the accuracy of the measurements.	Open – Await Response. In August 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Open – Acceptable Response." FRA is awaiting a formal response from NTSB. FRA is pursuing new research concerning development of laser-based ultrasonic and guide-wave technologies for rail flaw detection to help alleviate the impact of adverse test specimen conditions such as rail head wear. FRA has also initiated a study, with the cooperation of RSAC members, concerning effects of rail head wear conditions during the test process, and will issue a safety advisory, if necessary, once the evaluation is completed.	FRA is awaiting a formal response from NTSB. Complete evaluation and, if necessary, issue a safety advisory.
41	05/022/08	R-08-012	NTSB recommended that FRA assist PHMSA in its evaluation of the risks posed to train crews by unit trains transporting hazardous materials, determination of the optimum separation requirements between occupied locomotives and hazardous materials cars, and any resulting revision to Title 49 of the Code of Federal Regulations, Section 174.85.	Open – Await Response. In August 2008, FRA sent a letter to NTSB requesting that this recommendation by reclassified as "Closed – Acceptable Action." FRA is awaiting a formal response from NTSB. In 2005, FRA issued a report to Congress titled, "Safe Placement of Train Cars," in which FRA found unnecessary disturbing the established and very effective in-train placement and separation requirements for cars containing hazardous material. DOT is separately engaged in rulemaking activities to improve tank car integrity and reduce risks to train crews and the public as a whole.	FRA is awaiting a formal response from NTSB.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
42	07/14/89	R-89-048	NTSB recommended that FRA assist and cooperate with RSPA in amending Title 49 of the Code of Federal Regulations, Part 179, to require that closure fittings on tank cars carrying hazardous materials be designed to maintain their integrity in accidents that are typically survivable by the rail tank car.	Open - Unacceptable Response. FRA, PHMSA (RSPA's successor), and the rail industry are continuing to work together to address NTSB's recommendation. FRA is working with the AAR's Tank Car Committee to assist PHMSA in developing new requirements for top fitting protection on all hazardous materials tank cars. FRA continues to research alternative top fitting protection strategies. On December 23, 2008, PHMSA issued a final rule establishing interim design standards for rail tank cars designed to transport PIH materials. The final rule was jointly developed by FRA and PHMSA. The rule requires tank cars designed for the transportation of PIH materials to be equipped with either (1) a top fittings protection system and tank nozzle designed to survive a rollover with a 9 mph velocity; or (2) a tank nozzle designed to survive a 9 mph rollover and top fittings protection system that prevents the release of product from any top fitting in the case of an accident where any top fitting would be sheared off.	Update NTSB as necessary on the actions taken. Work with PHMSA to issue further regulations, as necessary.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
43	03/21/02	R-02-005	NTSB recommended that FRA require railroads to conduct ultrasonic or other appropriate inspections to ensure that rail used to replace defective segments of existing rail is free from internal defects.	Open - Unacceptable Response. On March 8, 2006, FRA issued Safety Advisory 2006-02 in direct response to NTSB's recommendation. The purpose of this advisory was to reduce the number of rail defects that occur when second-hand rail is used and to recommend practices for testing, classifying, and reusing second-hand rail. However, NTSB would like FRA's advisory revised to recommend that all railroads conduct ultrasonic or other appropriate inspections to ensure that all rail used as replacement rail is tested and determined to be free from internal defects. The Rail Integrity Task Force of RSAC's Track Safety Standards Working Group has been charged with examining internal rail flaw inspection procedures and systems within the regulated community, identifying any deficiencies in the procedures or systems, and making necessary recommendations to address them. FRA has also established the Rail Integrity Group as part of its Track and Structures Division to review all railroads' internal rail defect detection procedures and recommend changes, as needed, to ensure that an uninterrupted, continuous search for rail flaws is conducted by the railroad.	Continue FRA review and monitoring. Issue regulations, as necessary, based on RSAC recommendations.
44	06/13/03	R-03-001	NTSB recommended that FRA promulgate new or amended regulations that will control the use of cellular telephones and similar wireless communication devices by railroad operating employees while on duty so that such use does not affect operational safety.	Open - Unacceptable Response. On October 7, 2008, FRA published Emergency Order No. 26 to restrict on-duty railroad operating employees from improperly using cellular telephones and other distracting electronic and electrical devices.	FRA is awaiting a formal response from NTSB to this FRA action.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed to Be Taken by FRA
45	11/23/05	R-05-010	NTSB recommended that FRA require train crews call out all signal indications over the radio, including clear signals, at all locations that are not equipped with automatic cab signals with enforcement of a positive train control system.	Open - Unacceptable Response. FRA's RSAC reviewed this recommendation, but there was significant opposition on the grounds of impracticality, radio congestion, and other factors. FRA notes that the mandate for positive train control contained in the RSIA of 2008 should, to a considerable extent, lead to this becoming a moot issue. Further, to the extent the intent of this recommendation remains a concern, FRA will explore a further alternative approach in connection with resolution of the recommendation concerning voice recording (R-07-003).	Determine whether an alternative solution can be implemented.
46	12/12/05	R-05-016	NTSB recommended that FRA require railroads implement operating measures, such as positioning tank cars toward the rear of trains and reducing speeds through populated areas, to minimize impact forces from accidents and reduce the vulnerability of tank cars transporting chlorine, anhydrous ammonia, and other liquefied gases designated as poisonous by inhalation.	Open - Unacceptable Response. On April 1, 2008, PHMSA published an NPRM it developed jointly with FRA focusing on improving the crashworthiness protection of rail tank cars designed to transport PIH materials. This NPRM included operational restrictions for trains hauling rail tank cars containing PIH materials, among other requirements. In particular, it proposed a 30- mile-per-hour speed restriction in dark territory for existing tank cars transporting PIH materials. A final rule with respect to interim requirements for new tank cars is in clearance in the Executive Branch.	Work with PHMSA to issue final rule.
47	06/29/06	R-06-010	NTSB recommended that FRA prohibit the use of after-arrival track warrants for train movements in dark (non-signaled) territory not equipped with a positive train control system.	Open - Unacceptable Response. FRA's RSAC continues to address NTSB's recommendation. Its Operating Rules Working Group met with NTSB staff while studying after-arrival track warrants. FRA prepared a draft rule that would strictly limit use of after-arrival track warrants and discussed it extensively with the Working Group. Since the Working Group was not able to reach a resolution, FRA intends to proceed with an NPRM as soon as practicable.	Determine the safety and efficiency trade-offs associated with issuing after-arrival track warrants under differing operating conditions. Respond to NTSB with the results.

EXHIBIT C. OPEN RAIL SAFETY RECOMMENDATIONS BY THE OFFICE OF INSPECTOR GENERAL (OIG)

(AS OF DECEMBER 23, 2008)

#	Issue Date	Report Title and No.	Open OIG Recommendation	Actions Taken by FRA	Actions Needed to Be Taken by FRA
1	05/03/07	The Federal Railroad Administration Can Improve Highway-Rail Grade Crossing Safety by Ensuring Compliance With Accident Reporting Requirements and Addressing Sight Obstructions MH-2007-044	The Federal Railroad Administration (FRA) should strengthen safety oversight by ensuring that the railroads comply with mandatory requirements to report each grade crossing collision to FRA by issuing a violation and assessing a civil penalty each time a railroad fails to submit a grade crossing collision report in accordance with Federal requirements, on a consistent basis. Moreover, FRA should assess higher civil penalties against each railroad that repeatedly fails to report crossing collisions.	In 2005, FRA adopted a policy of taking violations for all clear-cut failures to report highway-rail grade crossing incidents and other accidents/incidents. That policy has been observed in intervening audits. FRA is incorporating that guidance in its compliance manuals. On December 5, 2006, FRA issued proposed statements of agency policy (proposed schedules of civil penalties for rail safety violations) that included a line-item increasing the dollar amount of the civil penalty ordinarily assessed against a railroad for failing to report a reportable accident/incident, including a grade crossing collision. Under this proposal, the guideline fine for failing to report a grade crossing collision would increase from $2,500 to $5,000, and the guideline penalty for a willful violation of this requirement would increase from $6,500 to $9,000. The ordinary maximum civil penalty at the time that the proposal was issued was $11,000. In September 2007, pursuant the Federal Civil Penalties Inflation Adjustment Act (Inflation Act), FRA issued a final rule increasing the ordinary maximum civil penalty for a rail safety violation from $11,000 to $16,000. As a result, FRA decided to issue a revised proposal and began to revise its December 2006 proposal. Subsequently, on October 16, 2008, Section 302 of the RSIA of 2008 amended the statutory provisions on rail safety civil penalties to increase the ordinary maximum civil penalty per rail safety violation from $16,000 to $25,000. This section also increased the aggravated maximum civil penalty. Accordingly, on December 18, 2008, FRA issued a final rule implementing these and related changes, and FRA continues to develop a revised proposed statement of agency policy for line-item changes to the penalty schedules, now to reflect the new ordinary maximum civil penalty of $25,000.	Issue revised proposed penalty schedules.

#	Issue Date	Report Title and No.	Open OIG Recommendation	Actions Taken by FRA	Actions Needed to Be Taken by FRA
2	05/03/07	The Federal Railroad Administration Can Improve Highway-Rail Grade Crossing Safety by Ensuring Compliance With Accident Reporting Requirements and Addressing Sight Obstructions MH-2007-044	FRA should work with the Federal Highway Administration (FHWA) to develop model legislation for States to improve safety by addressing sight obstructions at grade crossings that are equipped solely with signs, pavement markings, and other passive warnings.	FRA, in consultation with FHWA, has prepared an initial draft of model legislation for States to improve safety by addressing sight obstructions at grade crossings that have passive (non-automated) warning signs. FRA has solicited informal comments on the draft from the rail industry. Meanwhile, on October 16, 2008, the RSIA of 2008 was enacted. Section 203 of the Act references this OIG recommendation and directs the Secretary, after consultation with FRA, FHWA, and States, to develop and make available to States by April 16, 2010, model legislation addressing sight obstructions, including vegetation growth, topographic features, structures, and standing railroad equipment, at highway-rail grade crossings that are equipped solely with passive warnings. Pursuant to the statutory mandate, FRA has also planned outreach efforts to the National Conference of State Legislatures and the Governor's Conference, before the model legislation is issued.	Complete outreach and consultations with States, per RSIA of 2008 mandate. Issue the model legislation and make it available to States.

ACTIONS TAKEN AND NEEDED TO IMPLEMENT MANDATES AND ADDRESS RECOMMENDATIONS REGARDING RAIL SAFETY

Federal Railroad Administration

Report Number: CR-2008-072
Date Issued: August 26, 2008

Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation
Office of Inspector General

Subject: ACTION: Report on Actions Taken and Needed to Implement Mandates and Address Recommendations Regarding Rail Safety Federal Railroad Administration Report Number CR-2008-072

Date: August 26, 2008

From: David Tornquist
Assistant Inspector General for Rail and Maritime Program Audits and Economic Analysis

Reply to Attn. of: JA-50

To: Federal Railroad Administrator

This report presents the results of the Office of Inspector General's (OIG) audit of certain Federal Railroad Administration (FRA) actions to promote rail safety. The objective of this audit was to assess FRA's progress in implementing relevant mandates established by Congress and recommendations made by the National Transportation Safety Board (NTSB) and our office.

We conducted this audit in accordance with generally accepted Government Auditing Standards prescribed by the Comptroller General of the United States. We reviewed 50 statutory rail safety mandates passed by Congress from 1990[1] through 2007, 177 recommendations made by NTSB from 1989 through 2007, and 16 recommendations made by our office from 2003 through 2007. Exhibit A contains additional details on our objective, scope, and methodology.

RESULTS IN BRIEF

FRA has addressed most congressional mandates and NTSB and OIG recommendations regarding rail safety by issuing rules, completing studies, establishing oversight programs and processes, or disseminating model legislation to states. FRA closed 43 of 48 (90 percent) relevant congressional mandates, 133 of 177 (75 percent) NTSB recommendations, and 12 of 16 (75 percent) of the OIG recommendations we examined. However, 5 congressional rail safety mandates

[1] Throughout this report, unless otherwise indicated, calendar year data are reported.

still need to be implemented and 44 NTSB recommendations and 4 OIG recommendations have not been fully addressed (see table 1).

Table 1. Number of Open Rail Safety Mandates and Recommendations and Time Open As of April 30, 2008

Open Items	Number of Open Items	Average Time Open (in years)	Range of Time Open (in years)
Congressional Mandates	5*	2.2	0.3 to 2.7
NTSB Recommendations	44	4.9	1.0 to 18.8
OIG Recommendations	4	2.1	1.0 to 3.9

Source: OIG Analysis.
*Three of these open mandates were overdue.

The five open congressional rail safety mandates include additional measures to enhance the transportation of hazardous materials and improvements to the design and strength of rail tank cars (see Exhibit B). They have been open for an average of 2.2 years, ranging from 0.3 to 2.7 years. As of April 2008, three mandates were overdue because of delays in conducting related research; one met the initial statutory deadline, but still had not been completed; and one is not overdue because it received an extended deadline of 1 year. In addition to these five open mandates, we determined that 4 of the 43 closed mandates are ongoing because they require FRA to take periodic actions to promote safety, such as ensuring the appropriate enforcement of laws that protect railroad employees (see Exhibit C).

As of April 2008, 31 of 44 (70 percent) of the open NTSB rail safety recommendations were classified as open acceptable or open alternative response (see Exhibit D). The open NTSB recommendations include the need to enhance passenger equipment rail car safety standards and improve the safety of tank cars that transport hazardous materials. They have been open for an average of 4.9 years, ranging from 1.0 to 18.8 years.

Finally, 4 of 16 (25 percent) OIG recommendations remained open, as of April 2008 (see Exhibit E). These recommendations cover areas such as collecting national grade crossing inventory data, reporting grade crossing collisions, and reducing sight obstructions at grade crossings. They have been open for an average of 2.1 years, ranging from 1.0 to 3.9 years.

Although FRA has made significant progress, it can be more responsive to congressional mandates and recommendations regarding rail safety. Specifically, we found that:

- FRA did not have a centralized process for tracking and monitoring its implementation of congressional rail safety mandates. According to FRA officials, to identify rail safety mandates and actions taken, they relied on the regulatory agenda and rulemaking process as well as files maintained by staff responsible for addressing rail safety legislative issues. In addition, FRA relied heavily on the institutional knowledge of its senior safety officials. As a result, information on the actions taken to implement congressional rail safety mandates and meet statutory deadlines was not readily available for use in planning needed work, establishing milestones, assessing progress, and reporting accomplishments.

  FRA could improve its responsiveness by establishing a centralized process for documenting, tracking, and monitoring congressional rail safety mandates that includes planned and actual milestones. FRA officials told us that a centralized process for tracking the implementation of all open congressional mandates would serve three purposes. First, a tracking process would facilitate FRA's planning and managing of work assignments to implement these mandates, particularly those that require periodic actions. Second, a tracking process would provide information on the resources needed to implement open congressional mandates for FRA's annual budget requests. Third, a tracking process would provide FRA with information on its progress in implementing congressional mandates for reports to the Congress, public, and others.

- FRA rarely met the statutory mandate—delegated to it by the Secretary—that requires the Secretary to respond to NTSB's safety recommendations within 90 days of issuance.[2] From 1989 through 2007, FRA missed this deadline 83.6 percent of the time (148 of 177 recommendations). On average, it took FRA 198 days to respond to NTSB's recommendations. We also found that FRA did not routinely provide NTSB with timetables for implementing rail safety recommendations with which it fully or partially concurred or updates on the status of open recommendations. FRA could address NTSB's rail safety recommendations in a more timely manner by: (1) submitting a written response within 90 days and including a timetable for each recommendation that it plans to implement and (2) strengthening its processes for monitoring and tracking these recommendations.

A complete list of recommendations made in this report can be found on page 8.

[2] 49 U.S.C. §1135, "Secretary of Transportation's Response to Safety Recommendation."

FINDINGS

FRA Implemented Many Congressional Rail Safety Mandates Over the Past 18 Years, but a Centralized Process Is Needed to Track and Monitor Results

FRA made significant progress in closing out congressional mandates to improve rail safety that were established from 1990 through 2007. During this 18-year period, Congress established 50 rail safety mandates[3] that were included in 15 laws and 4 reports issued by the House of Representatives (see table 3 in Exhibit A). Collectively, these laws and reports authorized railroad safety programs and made appropriations available for program operations, among other things.

We found that FRA had closed 43 of 48 (90 percent) congressional safety mandates, primarily by conducting various studies of the railroads' operating practices and transmitting the reports to Congress. For example, it transmitted reports to Congress in September 1994 on the safe transportation of hazardous materials by rail, in May 2000 on positive train control systems, and in August 2005 on the safe placement of train cars. FRA also issued final rules to improve train operations. For example, FRA issued rules to upgrade power brakes on passenger and freight trains, enhance track safety standards, and promote safety at grade crossings.

Nonetheless, as of April 2008, we identified five congressional rail safety mandates that had not yet been implemented. These mandates had been open for an average of 2.2 years, ranging from 0.3 to 2.7 years. Three of the five open mandates had missed their statutory deadlines due to delays in conducting related research (see mandates 1, 2, and 4 in Exhibit B). One other open mandate met the initial statutory deadline through FRA's issuance of a notice of proposed rulemaking to strengthen requirements for tank cars carrying poison inhalation hazard products, but a final rule has not been issued (see mandate 3 in Exhibit B). Another open mandate is not overdue because it received an extended deadline of 1 year (see mandate 5 in Exhibit B).[4] In addition to these 5 open mandates, 4 of the 43 closed mandates are ongoing because they require FRA to take periodic actions to promote safety, such as ensuring the appropriate enforcement of laws that protect railroad employees (see mandates 1 through 4 in Exhibit C).

Although FRA has implemented many congressional rail safety mandates, we found that FRA did not have a centralized process for documenting, tracking, and

[3] We did not consider 2 of the 50 rail safety mandates relevant to our analysis because the authorized programs did not receive appropriations.

[4] This mandate appeared in the Explanatory Statement for the Department's Fiscal Year 2008 Appropriations Act.

monitoring its implementation of such mandates. According to FRA officials, to identify rail safety mandates and actions taken, they relied on the regulatory agenda and rulemaking process as well as files maintained by staff responsible for addressing specific rail safety legislative issues. We observed that FRA also relied heavily on the institutional knowledge of its senior safety officials. As a result, information on the actions taken to implement congressional rail safety mandates and meet statutory deadlines was not readily available for use in planning work assignments, establishing milestones, assessing progress, and reporting accomplishments.

According to FRA, a centralized process for tracking the implementation of all open congressional mandates would serve three purposes. First, a centralized tracking process would facilitate FRA's planning and managing of work assignments to implement these open mandates, particularly those that require the Secretary to take certain actions on a regular or periodic basis. For example, on a regular basis, the Secretary must consult with the Secretary of Labor to ensure the appropriate enforcement of laws that affect safe working conditions for railroad employees. In addition, the Secretary is required to periodically revise model prevention strategies and enforcement codes regarding trespassing and vandalism on railroad property.

Second, a centralized tracking process would provide information on the resources needed to implement congressional mandates for FRA's annual budget requests. It would also provide information to assist FRA in the proper allocation of appropriations to open mandates. Third, a centralized tracking process would provide FRA with information on its progress in implementing congressional mandates for reports to the Congress, public, and others.

FRA Addressed Many Rail Safety Recommendations Over the Past 19 Years, but Could Improve the Timeliness of Its Actions

FRA made significant progress in addressing rail safety recommendations that resulted in NTSB closing 133 recommendations from 1989 through 2007. Similarly, FRA's actions resulted in the OIG closing 12 recommendations from 2003 through 2007. Nonetheless, the timeliness of FRA's responses to these rail safety recommendations could be improved. NTSB safety recommendations propose a course of action for correcting a deficiency in railroad operations that FRA may adopt in full, in part, or decline. On the other hand, if FRA does not agree in full or in part to our recommendations or propose alternative solutions that would satisfy the intent of the recommendations, the matter is referred to the Office of the Secretary of Transportation for resolution.[5]

[5] DOT Order 8000.1C, "Office of Inspector General Audit and Investigation Report Findings, Recommendations, and Followup Action," July 20, 1989.

FRA Did Not Routinely Meet the Statutory Deadline for Submitting an Initial Response to NTSB's Recommendations

From 1989 through 2007, FRA rarely submitted an initial formal response to NTSB's safety recommendations within 90 days of receipt, as required by law. FRA missed the statutory deadline for 148 of 177 (83.6 percent) rail safety recommendations. On average, it took FRA 198 days to respond initially to NTSB's safety recommendations. FRA's failure to routinely respond to NTSB's recommendation in a timely manner could result in delays in safety improvements on our Nation's rail lines.

We found that FRA does not have adequate procedures to ensure that it routinely complies with the statutory deadline to respond to NTSB's recommendations within 90 days. Establishing adequate procedures may virtually eliminate FRA's delinquency in responding to rail safety recommendations.

FRA Did Not Routinely Provide NTSB with Timetables and Updates on the Progress Made in Addressing Open Safety Recommendations

The Department requires that all actions proposed in response to NTSB's recommendations be pursued expeditiously. When FRA fully or partially concurs with a rail safety recommendation, the initial response must include an implementation timetable. However, our analysis of the 44 open NTSB recommendations found that FRA had not submitted any implementation timetables with its initial written response to the 25 recommendations to which it fully or partially concurred. This omission occurred because FRA did not have a procedure to ensure that an implementation timetable was submitted to NTSB, when required.

Further, FRA did not routinely update—in writing—NTSB on the status of actions taken to address rail safety recommendations. We found that FRA's most recent correspondence with NTSB on the status of 44 open recommendations was an average of 2 years old. Moreover, for 4 of these 44 recommendations, FRA had not updated NTSB on their status for nearly 6 years. According to FRA officials, they relied heavily on oral communications with NTSB and, to their credit, routinely met with NTSB to discuss the status of recommendations and actions taken. Nonetheless, since FRA had not consistently provided NTSB with the required written updates on the implementation of safety recommendations, its progress in implementing the open NTSB recommendations may have not been fully communicated to NTSB.

FRA Made Significant Progress in Implementing OIG Recommendations

FRA implemented 12 of 16 (75 percent) OIG rail safety recommendations made from 2003 through 2007. The closed recommendations primarily focused on

actions to further reduce collisions between trains and motor vehicles at grade crossings. For example, FRA strengthened its oversight by: (1) implementing an action plan to conduct periodic reviews of the railroads' grade crossing collision records to identify unreported collisions, (2) reconciling its grade crossing accident records with records maintained by the National Response Center each month to ensure that the railroads report all grade crossing collisions to FRA's accident database, and (3) implementing an initiative to encourage states to close unneeded grade crossings.

As of April 2008, 4 of 16 (25 percent) OIG recommendations remained open. Covering areas such as collecting national grade crossing inventory data, reporting grade crossing collisions, and reducing sight obstructions at grade crossings, these four recommendations have been open for an average of 2.1 years, ranging from 1.0 to 3.9 years.

Further, our 2004 recommendation to establish mandatory reporting requirements for railroads and states through rulemaking or legislation to improve the accuracy and completeness of FRA's national grade crossing inventory data—to identify high-risk grade crossings and strategies to mitigate risks—has been open for nearly 4 years. During that time period, FRA has maintained that it lacks the statutory authority to require the states to report grade crossing inventory data. The Administration's rail safety reauthorization bills for 1999, 2002, 2003, and 2007 included a provision to address this recommendation. FRA officials considered the option of pursuing a rulemaking, but rejected it, and instead decided that legislation was the best way to obtain grade crossing inventory data from both the states and railroads.

RECOMMENDATIONS

We recommend that FRA:

1. Establish a centralized process for documenting, tracking, and monitoring congressional rail safety mandates that includes planned and actual milestones.

2. Establish procedures to ensure that NTSB receives an:

   a. initial response for each rail safety recommendation within 90 days of issuance and

   b. implementation timetable for each rail safety recommendation that FRA agrees to implement.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

A draft of this report was provided to FRA for comment on July 10, 2008. On July 29, 2008, FRA provided us with its formal response, which is contained in its entirety in the Appendix. FRA concurred with our audit results and recommendations, and agreed to take corrective actions. We agreed with the corrective actions proposed by FRA and found these actions responsive to the intent of our recommendations.

Recommendation 1: FRA concurred with our recommendation to establish a centralized process for documenting, tracking, and monitoring congressional rail safety mandates. FRA agreed that a centralized process would make information on the actions taken to implement mandates and meet statutory deadlines more readily available for use in planning work assignments, establishing milestones, assessing progress, preparing budgets, and reporting accomplishments. FRA plans to use its new Microsoft SharePoint[7] tracking system to assist in its regulatory planning and tracking of these mandates.

OIG Response: We consider FRA's proposed actions reasonable. We agree with FRA's recent implementation of the new Microsoft SharePoint tracking system in its Office of Safety. However, FRA did not provide a date for completing the full implementation of its new centralized tracking system for other FRA offices.

Recommendation 2a: FRA concurred with our recommendation to establish procedures to ensure that NTSB receives an initial response for each rail safety recommendation within 90 days of issuance. FRA stated that it has revised its procedures for addressing NTSB safety recommendations to ensure that FRA submits an initial response to NTSB within 90 days.

OIG Response: We consider FRA's proposed actions reasonable. FRA's new procedures should significantly improve the Agency's compliance in meeting statutory deadlines.

Recommendation 2b: FRA concurred with our recommendation to establish procedures to ensure that NTSB receives an implementation timetable for each rail safety recommendation that FRA agrees to implement. FRA plans to submit a tentative timetable with its initial response to NTSB recommendations, and will periodically update the timetable as circumstances and priorities change.

[7] Microsoft SharePoint is an intranet-based application with the flexibility to grant access to specified individuals to read and edit information.

OIG Response: We consider FRA's proposed actions reasonable. However, FRA did not provide a target date for establishing and disseminating the procedure.

ACTIONS REQUIRED

In accordance with DOT Order 8000.1C, we request that FRA provide us with target completion dates for implementing recommendations 1 and 2b, as discussed above, within 30 calendar days from the date of this report.

We appreciate the courtesies and cooperation of FRA representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-1981 or Brenda R. James, Program Director, at (202) 366-0202.

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EXHIBIT A. OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this audit was to assess FRA's progress in implementing congressional mandates and addressing recommendations made by NTSB and OIG regarding railroad safety. To accomplish this objective, we obtained, reviewed, and analyzed data on mandates that were included in 15 laws enacted by Congress from 1990 through 2007, NTSB recommendations issued from 1989 through 2007, and OIG recommendations issued from 2003 through 2007. In addition, we interviewed officials from FRA and NTSB.

To assess the implementation of congressional rail safety mandates, we interviewed appropriate officials in FRA's Office of Safety and Office of Chief Counsel. We analyzed pertinent congressional documents, including FRA's authorizing legislation, reauthorization legislation, annual appropriation laws, and other legislation as well as conference and committee reports (see table 3 below). To determine whether each congressional mandate had been implemented by FRA, we reviewed applicable documents obtained from FRA and Federal statutes, including the United States Code, the Code of Federal Regulations, the Unified Regulatory Agenda, and the Federal Register. For overdue congressional mandates, we calculated the number of years and months that had elapsed after the statutory deadlines established by Congress.

Table 3. Rail Safety Mandates Established by Congress (1990 through 2007)

Name or Short Title of Legislation	Public Law Number
Hazardous Materials Transportation Uniform Safety Act of 1990	101-615
Department of Transportation and Related Agencies Appropriations Act, 1992	102-143, Title V
Rail Safety Enforcement and Review Act, 1992	102-365
Amtrak Authorization Development Act, 1992	102-533
Hazardous Materials Transportation Authorization Act of 1994	103-311, Title I
Federal Railroad Safety Authorization Act of 1994	103-440, Titles II and III
Department of Transportation and Related Agencies Appropriations Act, 1996[a]	104-50
Small Business Regulatory Enforcement Fairness Act of 1996	104-121, Title II

Name or Short Title of Legislation	Public Law Number
Debt Collection Improvement Act of 1996	104-134
Department of Transportation and Related Agencies Appropriations Act, 2000[b]	106-69
Consolidated Appropriations Resolution, 2003[c]	108-7
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, 2005	109-59
Transportation, Treasury, Housing and Urban Development, The Judiciary, the District of Columbia, and Independent Agencies Appropriations Act, 2006[d]	109-115
Implementing Recommendations of the 9/11 Commission Act of 2007	110-53
Consolidated Appropriations Act, 2008: Division K, Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2008	110-161

Source: FRA and OIG.

[a] Mandate established in House Report 104-286, October 20, 1995.
[b] Mandate established in House Report 106-355, September 30, 1999.
[c] Mandate established in House Report 108-10, February 13, 2003.
[d] Mandate established in House Report 109-153, June 24, 2005.

To evaluate the status of NTSB recommendations issued to FRA, we met with NTSB officials and obtained a listing of open recommendations addressed to FRA. We also met with FRA officials and obtained a listing of NTSB recommendations that were classified as open. (The oldest open NTSB recommendation was issued to FRA on July 14, 1989.) To validate the open NTSB rail safety recommendations, we analyzed NTSB's recommendation database and compared it to documentation obtained from FRA, identifying the number of open and closed recommendations addressed to FRA from 1989 through 2007.

To further assess the status of NTSB recommendations, we reviewed all correspondence between NTSB and FRA concerning the open recommendations. We also reviewed correspondence between NTSB and FRA on recommendations classified as "Closed Unacceptable Action," to determine the reason for FRA opting not to implement the recommendation. We calculated the number of years that elapsed from the time the recommendation was issued to the day FRA submitted an initial response to NTSB. For closed recommendations, we also calculated the number of years that elapsed from the time the recommendation was issued to the day that NTSB closed the recommendation. For open recommendations, we calculated the number of days the recommendation had been classified as open.

To identify open OIG recommendations addressed to FRA, we searched the Transportation Inspector General's Reporting System. We included OIG recommendations issued to FRA from 2004 through 2007. (The oldest open OIG recommendation was issued to FRA on June 16, 2004.) We met with FRA officials to identify the actions taken to address each of the open recommendations. We also identified the actions needed to complete the response to each recommendation and a target date for completion.

We conducted this performance audit in accordance with generally accepted Government Auditing Standards prescribed by the Comptroller General of the United States, from November 2007 through April 2008. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

EXHIBIT B. OPEN CONGRESSIONAL RAIL SAFETY MANDATES ESTABLISHED FROM 1990 THROUGH 2007

#	Short Title, Public Law Citation, and Enactment Date	Section	Open Congressional Mandate	Actions Taken	Actions Needed by FRA
1	Hazardous Materials Transportation Uniform Safety Act of 1990 P.L. 101-615 November 16, 1990	15 Amended Section 116(b) of the Hazardous Materials Transportation Act (Title 49, U.S.C. App. 1813)	**Due Date: The Railroad Transportation Study was submitted to Congress on September 22, 2005, but after nearly 3 years this mandate has not been completed.** Within 24 months after the enactment of this section, taking into consideration the findings of the Railroad Transportation Study conducted pursuant to subsection (a), the Secretary shall amend existing regulations as deemed 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. Note: In our October 20, 2005 report, we reported the Railroad Transportation Study as 14.8 years overdue. The mandate to amend existing regulations could not be undertaken until that study was completed.	The Department's FY 2008 Appropriations Act included funds that FRA plans to use to conduct additional research to assess conditions for the transportation of spent nuclear fuel. FRA plans to spend no more than about $100,000 to complete the necessary research and expects to issue a notice of proposed rulemaking (NPRM) in FY 2009.	Complete additional research. Prepare a NPRM and final rule, based on research results.

#	Short Title, Public Law Citation, and Enactment Date	Section	Open Congressional Mandate	Actions Taken	Actions Needed by FRA
2	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users P.L. 109-59 August 10, 2005	Title IX, Section 9005 Amended Title 49, U.S.C. by adding new Section 20155	**Due Date: August 10, 2006, Overdue by 1.7 years.** (a) (1) FRA shall validate a predictive model to quantify the relevant dynamic forces acting on railroad tank cars under accident conditions within 1 year after the date of enactment of this section.	The Volpe National Transportation Systems Center conducted research to assess the effects of various types of train accidents on tank cars. The first phase consisted of developing a physics-based model to analyze the kinematics of rail cars in a derailment. The second phase consisted of developing a valid dynamic structural analysis model. The third phase consisted of assessing the damage created by punctures and fractures. The Center is preparing a final report on all three phases of its research.	Complete and issue final report.
3	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users P.L. 109-59 August 10, 2005	Title IX, Section 9005 Amended Title 49, U.S.C. by adding new Section 20155	**Due Date: Rulemaking was initiated on May 31, 2006 (which was 9 months before the February 10, 2007 statutory deadline), but after nearly 2 years, it has not been completed.** (a)(2) Initiate a rulemaking to develop and implement appropriate design standards for pressurized tank cars within 18 months of the date of enactment of this section.	On April 1, 2008, FRA and PHMSA jointly issued a NPRM to require tank cars carrying poison inhalation hazard products, such as chlorine and anhydrous ammonia, to be equipped with puncture-resistance protection strong enough to prevent penetration at speeds of 25 miles per hour for side impacts and 30 miles per hour for head-on collisions. The comment period ended on June 2, 2008.	Issue a final rule.

Exhibit B. Open Congressional Rail Safety Mandates Established From 1990 Through 2007

#	Short Title, Public Law Citation, and Enactment Date	Section	Open Congressional Mandate	Actions Taken	Actions Needed by FRA
4	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users P.L. 109-59 August 10, 2005	Title IX, Section 9005 Amended Title 49, U.S.C. by adding new Section 20155	**Due Date: August 10, 2006, Overdue by 1.7 years.** (b) Not later than 1 year after the date of enactment of this section, FRA shall conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressure tank cars constructed before 1989. Not later than 6 months after completing the analysis, FRA shall transmit a report, including recommendations for reducing any risk of catastrophic fracture and separation of such cars, to the Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure.	In July 2007, the Southwest Research Institute (a subcontractor to FRA's contractor—the Volpe National Transportation Systems Center) produced a draft final research report on its work in analyzing and testing pre-1989 tank car steels and provided it to FRA's Office of Research and Development for review and comments. FRA plans to return the draft report to Southwest for further revisions. The expected target date for completing and publishing the final research report is September 2008.	Issue final research report. Consult with Transport Canada and private sector entities and develop risk reduction recommendations. Prepare and transmit a report to congressional committees.
5	Consolidated Appropriations Act, 2008, Division K, Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2008 P.L. 110-161 December 26, 2007	Division K, Explanatory Statement submitted by Mr. Obey, Chairman of the House Committee on Appropriations	**Due Date for Schedule: March 25, 2008.** **Due Date for Report: June 23, 2009 (as agreed by Committee staff), instead of the original deadline of June 23, 2008.** The Explanatory Statement on the Department's FY 2008 Appropriations Act stated that the amended bill included $200,000 to hire an independent consultant to evaluate FRA's use of penalties as an enforcement mechanism instead of $300,000 as proposed by the Senate. The Appropriations Committees directed FRA to report within 90 days on the schedule of the evaluation and to provide the independent consultant's comprehensive report within 180 days on the evaluation's findings along with FRA's comments on the evaluation.	On December 26, 2007, Congress appropriated funds to carry out this mandate, which were apportioned to FRA by OMB in February 2008. On March 13, 2008, FRA met with staff of the Appropriations Committees. Subsequently, FRA provided a tentative evaluation schedule to the committees' staff. FRA's Office of Chief Counsel and Office of Safety plan to work closely to ensure that a meaningful contract would be executed for this evaluation.	Provide the Appropriations Committees with a final schedule for the evaluation. Submit a comprehensive report to the Appropriations Committees by June 30, 2009, as agreed.

OIG Analysis.

Exhibit B. Open Congressional Rail Safety Mandates Established From 1990 Through 2007

EXHIBIT C. ONGOING CONGRESSIONAL RAIL SAFETY MANDATES ESTABLISHED FROM 1990 THROUGH 2007

#	Short Title, Public Law Citation, and Enactment Date	Section	Ongoing Congressional Mandate	Actions Taken	Actions Needed by FRA
1	Federal Railroad Safety Authorization Act of 1994 P.L. 103-440 November 2, 1994	213 Amended subchapter II of Chapter 201 of Title 49, U.S.C. by adding new section 20149	The Secretary shall consult with the Secretary of Labor on a regular basis to ensure that all applicable laws affecting safe working conditions for railroad employees are appropriately enforced to ensure a safe and productive working environment for the railroad industry.	FRA and the Department of Labor (DOL) have overlapping jurisdiction for occupational safety and health issues in the railroad industry. As a result, FRA regularly consults with DOL's Occupational Safety and Health Administration (OSHA) regarding workplace-related safety issues for railroad employees and on rulemakings that affect working conditions in the rail industry. For example, FRA's accident reporting regulations were updated to conform to OSHA's revised reporting requirements (68 FR 10108). FRA also consults with the DOL Mine Safety and Health Administration (MSHA) regarding coordinating FRA and MSHA's safety programs when needed.	Continue to consult with the DOL on a regular basis.

#	Short Title, Public Law Citation, and Enactment Date	Section	Ongoing Congressional Mandate	Actions Taken	Actions Needed by FRA
2	Federal Railroad Safety Authorization Act of 1994 P.L. 103-440 November 2, 1994	219 Amended subchapter II of Chapter 201 of Title 49, U.S.C. by adding new section 20151; § 20151(a)	Not later than 1 year after the date of enactment of this Act the Secretary, in consultation with affected parties, shall evaluate and review current local, State, and Federal laws regarding trespassing on railroad property and vandalism affecting railroad safety and develop model prevention strategies and enforcement laws to be used for consideration of State and local legislatures and governmental entities. The first such evaluation and review shall be completed within 1 year after the date of enactment of the Act. The Secretary shall revise such model prevention strategies and enforcement codes periodically.	FRA reviewed existing laws and regulations regarding trespassing and vandalism, as part of its efforts to develop model state legislation. FRA compiled these laws and regulations, along with additional laws regarding grade crossing safety, and published them in its *Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings (Second Edition, August 1995)*. FRA has periodically reviewed pertinent state laws and revised its compilation publication (*Third Edition, January 2000, and Fourth Edition, October 2002*). At some time in 2008, FRA will issue a contract to update this publication.	Periodically revise model prevention strategies and state legislation.

Exhibit C. Ongoing Congressional Rail Safety Mandates Established From 1990 Through 2007

#	Short Title, Public Law Citation, and Enactment Date	Section	Ongoing Congressional Mandate	Actions Taken	Actions Needed by FRA
3	Debt Collection Act of 1996 P.L. 104-134 April 26, 1996	Sec. 31001(s)(1) (28 U.S.C. § 2461 note)	After making the initial adjustments required by this Act, Federal agencies must review and adjust the minimum and the maximum civil penalty per violation for regulations they administer by amending the regulations periodically.	On May 28, 2004, FRA published a final rule to adjust the minimum and maximum civil penalty for violations of hazardous materials regulations and a final rule to adjust the minimum and aggravated maximum civil penalty for violations of all FRA rail safety regulations, respectively (69 FR 30590 and 69 FR 30591). On October 28, 2004, corrections to the existing regulations were published (69 FR 62817). On September 6, 2007, FRA published its final rule adjusting the ordinary maximum civil penalty for violations of all FRA rail safety regulations (72 FR 51194).	Continue to periodically amend regulations.

Exhibit C. Ongoing Congressional Rail Safety Mandates Established From 1990 Through 2007

#	Short Title, Public Law Citation, and Enactment Date	Section	Ongoing Congressional Mandate	Actions Taken	Actions Needed by FRA
4	Implementing Recommendations of the 9/11 Commission Act of 2007 P.L. 110-53 August 3, 2007	Section 1526 of the 9/11 Commission Act amended Title 49 U.S.C. § 28101	Development and Dissemination to States of Model Legislation on "Scam Railroads." Not later than November 2, 2007, the Secretary of Transportation must develop and make available to States model legislation to address the problem of entities that claim to be railroad carriers in order to establish and run a police force when the entities do not in fact provide railroad transportation. In developing the model State legislation, the 9/11 Commission Act directed the Secretary to solicit the input of the States, railroad carriers, and railroad carrier employees. The Act also directed the Secretary to review and, if necessary, revise such model State legislation periodically.	In September 2007, FRA sent a letter to state governors, representatives of railroads, and railroad employees requesting suggestions for a model state law to address the problem of "scam railroads"—organizations purporting to be railroads and employing railroad police officers, yet offering no means of railroad transportation. FRA's letter enclosed a copy of its 2006 model state legislation on the commissioning of railroad police and asked for ideas on how to improve it. By November 2, 2007, FRA reviewed the responses it had received, revised the model state law, and transmitted it and supporting documents to states.	Periodically revise model state legislation.

OIG Analysis

Exhibit C. Ongoing Congressional Rail Safety Mandates Established From 1990 Through 2007

EXHIBIT D. OPEN NTSB RAIL SAFETY RECOMMENDATIONS FROM 1989 THROUGH 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
1	12/31/92	R-92-022	Open 15.3 years. NTSB recommended that FRA develop and promulgate, with PHMSA, requirements for the periodic testing and inspection of rail tank cars that help to ensure the detection of cracks before they propagate to critical length. These requirements are to establish inspection intervals that are based on the defect size detectable by the inspection method used, the stress level, and the crack propagation characteristics of the structural component (requirements based on a damage-tolerance approach).	Open - Acceptable Response. PHMSA published a final rule in September 1995, to increase the frequency of required testing and inspections of rail tank cars, based on accumulated and average mileage, and to authorize adjustment of inspection intervals, based on damage-tolerance analysis. To address damage-tolerance, FRA sponsored two research projects. In July 2007, FRA told NTSB it would work to expedite completion of the research projects. A technical study providing a basic damage-tolerance approach is under final review, and additional studies are underway to support derivation of the probability of detection curves and application of these methods to rail tank car substructures.	Complete the research projects and disseminate findings and tools.

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
2	08/28/97	R-97-015	Open 10.7 years. NTSB recommended that FRA require all passenger cars have either removable windows, kick panels, or other suitable means for emergency exiting through the interior and exterior passageway doors where the door could impede passengers exiting in an emergency and take appropriate emergency measures to ensure corrective action until these measures are incorporated into minimum Passenger Car Safety Standards.	Open - Acceptable Response. On May 12, 1999, FRA issued Passenger Equipment Safety Standards for rail passenger service that addressed kick-out panels for trains traveling 125 to 150 miles per hour (Tier II passenger equipment). However, these regulations did not address kick-out panels for trains traveling at or less than 125 miles per hour (Tier I passenger equipment). In 1999, egress through doors and windows was addressed for Tier I passenger equipment and on February 1, 2008, FRA issued a final rule that further addressed egress requirements. The Railroad Safety Advisory Committee's Emergency Preparedness Task Force reviewed the remaining safety issues and, through the Passenger Safety Working Group, reported recommendations for removable panels in certain interior doors for Committee action on February 20, 2008. In addition, FRA's Small Business Innovative Research Program continues to research the viability of integrating removable panels/windows capable of meeting Federal glazing standards into end-frame doors.	Issue regulation on removable panels in certain interior doors. Complete research.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
3	08/28/97	R-97-017	Open 10.7 years. NTSB recommended that FRA require all passenger cars contain reliable emergency lighting fixtures that are each fitted with a self-contained independent power source and incorporate the requirements into minimum Passenger Car Safety Standards.	Open - Acceptable Response. FRA's Passenger Equipment Safety Standards for rail passenger service, which were published in the Federal Register on May 12, 1999, addressed emergency lighting for passenger cars ordered on or after September 8, 2000, or those placed into service for the first time on or after September 9, 2002. Subsequently, FRA worked with the American Public Transportation Association to develop industry standards to improve emergency lighting pathway markings, including survivability of the systems. On February 20, 2008, the Passenger Safety Working Group presented proposed rule language to the Railroad Safety Advisory Committee that would incorporate the new standards by reference.	Issue regulations.
4	09/16/98	R-98-056	Open 9.6 years. NTSB recommended that FRA include in the Passenger Car Safety Standards a requirement for positive seat securement systems to prevent the disengagement and undesired rotation of seats in all new passenger cars purchased after January 1, 2000, and require the incorporation of such a system into existing passenger cars when they are scheduled for overhaul.	Open - Acceptable Response. FRA's Passenger Equipment Safety Standards for rail passenger service, which were published in the Federal Register on May 12, 1999, addressed seat securement in passenger cars, but did not address rotating-seat issues. Amtrak had previously improved its seat-locking mechanism, but the rotation of some seats continues to occur. FRA's Office of Research and Development plans to help to develop alternative seat-locking designs and test prototype seat-securement systems in cooperation with Amtrak for inclusion in future regulations. FRA and NTSB accident investigations have not established a nexus between seat rotation and passenger injuries.	Issue revised regulations, as necessary.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
5	01/13/00	R-00-001	Open 8.3 years. NTSB recommended that FRA establish, with assistance from experts on the effects of pharmacological agents on human performance and alertness, procedures or criteria by which train operating crewmembers who medically require substances not on the Department's list of approved medications may be allowed, when appropriate, to use those medications when performing their duties.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's Railroad Safety Advisory Committee to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. In 2007, the Railroad Safety Advisory Committee's Medical Standards Working Group was established to address these recommendations and other fitness-for-duty concerns. The Working Group continues to develop recommendations for a proposed rule for FRA to issue in 2009.	Issue regulations.
6	01/13/00	R-00-002	Open 8.3 years. NTSB recommended that FRA develop, then periodically publish, an easy-to-understand source of information for train operating crewmembers on the hazards of using specific medications when performing their duties.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's Railroad Safety Advisory Committee to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. In 2007, the Railroad Safety Advisory Committee's Medical Standards Working Group was established to address these recommendations and other fitness-for-duty concerns. The Working Group continues to develop recommendations for a proposed rule for FRA to issue in 2009.	Issue regulations.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
7	01/13/00	R-00-003	Open 8.3 years. NTSB recommended that FRA establish and implement an educational program targeting train operating crewmembers that, at a minimum, ensures that all crewmembers are aware of the source of information described in NTSB recommendation R-00-002 regarding the hazards of using specific medications when performing their duties.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's Railroad Safety Advisory Committee to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. In 2007, the Railroad Safety Advisory Committee's Medical Standards Working Group was established to address these recommendations and other fitness-for-duty concerns. The Working Group continues to develop recommendations for a proposed rule for FRA to issue in 2009.	Issue regulations.
8	01/13/00	R-00-004	Open 8.3 years. NTSB recommended that FRA establish, in coordination with the Department, 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 was to review and analyze the results of such testing at intervals not to exceed every 5 years.	Open - Acceptable Response. In 2002, NTSB officials met with members of FRA's Railroad Safety Advisory Committee to discuss concerns with NTSB recommendations R-00-001 through R-00-004. At that meeting, NTSB clarified the intent of recommendations R-00-001 through R-00-004. FRA was already testing for benzodiazepines and barbiturates, in addition to the "SAMSA 5" drug groups and alcohol in its post-accident program. FRA also conducted blind testing of extant archive samples to determine the prevalence of other-drug use in the population of accident-involved employees. FRA presented those results to NTSB and the Railroad Safety Advisory Committee's Medical Standards Working Group in support of the need to include therapeutic drug use management in the forthcoming medical standards NPRM. FRA plans to issue a NPRM in 2009 to amend 49 CFR Part 219 to routinely authorize testing of post-accident specimens for drugs other than controlled substances.	Issue regulations.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
9	03/12/01	R-01-002	Open 7.1 years. NTSB recommended that FRA evaluate, with the assistance of PHMSA, 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 was to incorporate these inspection criteria into the Department's Hazardous Materials Regulations.	Open - Acceptable Response. The Association of American Railroads task force collected over 5,000 inspection reports on pressure relief devices. PHMSA plans to consider regulatory changes once the Tank Car Committee completes its review of the data.	Evaluate the results of the review and work with PHMSA to issue regulations, as necessary.
10	06/12/01	R-01-006	Open 6.9 years. NTSB recommended that FRA facilitate actions necessary for the development and implementation of positive train control systems on main line tracks, establishing priority requirements for high-risk corridors such as those where commuter and intercity passenger railroads operate.	Open - Acceptable Response. FRA encouraged the rapid deployment of positive train control systems within the rail industry. On March 7, 2005, FRA issued a final rule that adopted a performance-based approach to the review and qualification of new train control technology. FRA approved the Railroad Safety Program Plans that the major railroads were using to develop positive train control systems and the Burlington Northern Santa Fe Railway's Electronic Train Management System Product Safety Plan (configuration I in December 2006). In addition, FRA closely monitors the process and progress of the implementation of these systems and provides support to the rail industry, as needed.	Continue to support the implementation of positive train control systems.
11	09/24/01	R-01-017	Open 6.6 years. NTSB recommended that FRA modify Title 49 of the Code of Federal Regulations, Section 219.201(b), as necessary to ensure that the exemption from mandatory post-accident drug and alcohol testing for those involved in highway-rail grade crossing accidents does not apply to any railroad signal, maintenance, and other employees whose actions at or near a grade crossing involved in an accident may have contributed to the occurrence or severity of the accident.	Open - Acceptable Response. In August 2001, an extensive revision of Title 49 of the Code of Federal Regulations, Section 219.201(b), concluded shortly before NTSB issued this recommendation. However, FRA agreed that the exemption portion of its alcohol and drug testing regulation should be narrowed from its present universal exclusion of all railroad employees from post-accident toxicological testing when highway-rail grade crossing accidents occur. To address this issue, FRA plans to further revise Section 219.201(b) in 2009.	Issue regulations.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
12	02/15/02	R-02-001	Open 6.2 years. NTSB recommended that FRA, for all railroads that install new or upgraded grade crossing warning systems that include crossing gates and that are equipped with event recorders, require that the information captured by event recorders include the position of the deployed gates.	Open - Acceptable Response. FRA has no regulation requiring the railroads install event recorders in highway-rail grade crossing signal systems. FRA is contemplating opening Title 49 of the Code of Federal Regulations, Part 234 (Grade Crossing Signal System Safety), for possible rulemaking, no later than December 2008.	Issue regulations, as necessary.
13	11/27/02	R-02-024	Open 5.4 years. NTSB recommended that FRA develop a standard medical examination form that includes questions regarding sleep problems and require that the form be used, pursuant to Title 49 of the Code of Federal Regulation, Part 240, to determine the medical fitness of locomotive engineers; the form should also be available for use to determine the medical fitness of other employees in safety-sensitive positions.	Open - Acceptable Response. On September 21, 2006, FRA tasked its Railroad Safety Advisory Committee with establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. The Medical Standards Working Group is preparing a standard form, including sleep disorder questions.	Issue regulations.
14	11/27/02	R-02-025	Open 5.4 years. NTSB recommended that FRA require that any medical condition that could incapacitate, or seriously impair the performance of, an employee in a safety-sensitive position be reported to the railroad in a timely manner.	Open - Acceptable Response. On September 21, 2006, FRA tasked its Railroad Safety Advisory Committee with establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. A proposed rule is being developed to specifically address these concerns.	Issue regulations.
15	11/27/02	R-02-026	Open 5.4 years. NTSB recommended that FRA require that, when a railroad becomes aware that an employee in a safety-sensitive position has a potentially incapacitating or performance-impairing medical condition, the railroad prohibit that employee from performing any safety-sensitive duties until the railroad's designated physician determines that the employee can continue to work safely in a safety-sensitive position.	Open - Acceptable Response. On September 21, 2006, FRA tasked its Railroad Safety Advisory Committee with establishing standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. FRA will issue regulations based on the work completed by the Railroad Safety Advisory Committee.	Issue regulations.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
16	08/15/03	R-03-012	Open 4.7 years. NTSB recommended that FRA, in cooperation with the Transportation Security Administration, develop and implement an accurate passenger and crew accountability system for all long-distance, overnight, and reserved passenger trains that will immediately provide an accurate count and identity of the people on board the train in case of emergency at any time during the trip.	Open - Acceptable Response. FRA entered into an agreement with the Transportation Security Administration and Amtrak to fund a study through the Volpe National Transportation Systems Center to examine what available technologies exist to develop an accurate passenger train manifest. In December 2005, FRA published a report that concluded an improved passenger manifest was possible, but the costs would be very substantial and benefits would be questionable.	Respond to NTSB with the results of the report.
17	11/06/03	R-03-021	Open 4.5 years. NTSB recommended that FRA revise the language of Title 49 of the Code of Federal Regulations, Section 238.113(a)(1), to reflect that appropriate exterior instructional signage describing the emergency removal procedure be required at emergency windows on all levels of a multiple-level passenger rail car.	Open - Acceptable Response. In 2003, the Emergency Preparedness Task Force (within FRA's Railroad Safety Advisory Committee) was formed to address this recommendation and other high-priority topics related to systems, procedures, and equipment. On August 24, 2006, a NPRM was issued to address Passenger Train Emergency Systems, including evacuation systems. The final rule was published on February 1, 2008.	Request NTSB to reclassify as "Closed—Acceptable Action."
18	03/15/04	R-04-001	Open 4.1 years. NTSB recommended that FRA require all railroads with continuous welded rail 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.	Open - Acceptable Response. On October 11, 2006, FRA published a regulation in the Federal Register that required railroads establish a program for the periodic visual inspection of joint bars in continuous welded rail track by January 1, 2007. However, the regulation did not require non-destructive testing of joint bars on a periodic basis. FRA stated that there was insufficient engineering data to establish the effectiveness of non-destructive testing techniques as applied to joint bars in the service environment. FRA and the Association of American Railroads (through the Transportation Technology Center, Inc.) are working on non-destructive testing techniques that may be useful in the future.	Develop and issue a regulation, when suitable technology becomes available.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
19	03/15/04	R-04-004	Open 4.1 years. NTSB recommended that FRA conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressure tank cars constructed before 1989. At a minimum, the safety analysis should include the results of dynamic fracture toughness tests and/or the results of nondestructive testing techniques that provide information on material ductility and fracture toughness. The data should come from samples of steel from the tank shells from original manufacturing or from a statistically representative sampling of the shells of the pre-1989 pressure tank car fleet.	Open - Acceptable Response. In 2005, SAFETEA-LU required FRA to conduct a comprehensive analysis to determine the impact resistance of the steels in the shells of pressure tank cars constructed before 1989. To address this SAFETEA-LU requirement and NTSB's recommendation, the Southwest Research Institute is preparing a report for FRA on testing methods to address the impact resistance of tank shells. A task force is expected to begin steel testing once the methods are evaluated. NTSB did not agree with the task force's decision to gather steel samples from only pre-1989 tank cars as they are scrapped and not from tank cars remaining in service.	Complete analysis. Issue regulations, as necessary.
20	03/15/04	R-04-006	Open 4.1 years. NTSB recommended that FRA validate the predictive model FRA is developing to quantify the maximum dynamic forces acting on railroad tank cars under accident conditions.	Open - Acceptable Response. FRA sponsors ongoing programs to evaluate train forces associated with derailments. On March 30, 2007, FRA reported its research findings at a public meeting on tank car safety. The Volpe National Transportation Systems Center prepared a formal report on the research findings, which were incorporated into a NPRM that was jointly issued by PHMSA and FRA on April 1, 2008. This NPRM was issued to improve the crashworthiness protection of rail tank cars designed to transport poison inhalation hazard products.	Complete and publish the research report. Issue final rule.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
21	03/15/04	R-04-007	Open 4.1 years. NTSB recommended that FRA develop and implement Tank Car Design-Specific Fracture Toughness Standards, such as a minimum average Charpy value, for steels and other materials of construction for pressure tank cars used for the transportation of the Department'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.	Open - Acceptable Response. FRA concluded that the results of the research reported under R-04-004 did not support taking specific actions related to testing for tank car steel toughness. However, the NPRM that was jointly issued by PHMSA and FRA on April 1, 2008, addressed concerns regarding the use of non-normalized steels and focused on improving the crashworthiness protection of rail tank cars designed to transport poison inhalation hazard products.	Issue final rule.
22	02/03/05	R-05-002	Open 3.2 years. NTSB recommended that FRA require in Title 49 of the Code of Federal Regulations, Part 225 (Railroad Accidents/Incident: Reports Classification, and Investigations) that derailments caused by rail cracks originating from bond wire attachments be reported with a specific cause code and that information on the methods and locations of those wire attachments be provided in the accident narrative.	Open - Acceptable Response. FRA is preparing a NPRM to revise Title 49 of the Code of Federal Regulations, Part 225, which will include revisions to Appendix C of the train accident cause codes in FRA's Guide for Preparing Accident/Incident Reports.	Complete revisions to the guide. Issue regulation.
23	08/25/05	R-05-005	Open 2.7 years. NTSB recommended that FRA emphasize to its track inspectors the importance of enforcing a railroad's continuous welded rail program as a part of the Federal Track Safety Standards and verify that inspectors are documenting noncompliance with the railroad's program.	Open - Acceptable Response. In April 2007, FRA revised its Track Safety Standards Compliance Manual by including comprehensive instructions to inspectors on how to effectively apply the standards for continuous welded rail. On February 20, 2008, the Railroad Safety Advisory Committee met and discussed proposed regulatory changes that would further clarify FRA's track safety standards.	Respond to NTSB to update the actions taken. Issue regulations, as necessary.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
24	11/23/05	R-05-009	Open 2.4 years. NTSB recommended that FRA develop guidelines for locomotive engineer simulator training programs that go beyond developing basic skills and teach strategies for effectively managing multiple concurrent tasks and atypical situations.	Open - Acceptable Response. FRA agreed that developing guidelines for locomotive engineer skill development that would contribute to good situational awareness was worthy of consideration, both as a further contribution to the quality of existing training programs and as a means of benchmarking the various programs. However, FRA has not identified the resources needed to initiate this action and does not plan to undertake it until such resources are identified.	Develop and issue guidelines.
25	12/12/05	R-05-017	Open 2.4 years. NTSB recommended that FRA determine the most effective methods of providing emergency escape breathing apparatuses for all crewmembers on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of unintentional release and require railroads to provide these breathing apparatus to their crewmembers along with appropriate training.	Open - Acceptable Response. FRA continues to conduct a study to address all aspects of this recommendation. The study includes the types of emergency escape breathing apparatuses available, how the equipment should be used, what training would be required for its use, and the cost. This study was expected to be completed in March 2008; however, in February 2008, FRA required the study's contractor to make significant revisions and provide a draft final report for review in the near future. FRA assigned staff to this study, but no report due date has been specified.	Complete the study. Issue regulations, as necessary.
26	06/07/06	R-06-007	Open 1.9 years. NTSB recommended that FRA require railroads to implement for all power-assisted switch machines, regardless of location, a formal commissioning procedure and a formal maintenance program that includes records of inspections, tests, maintenance, and repairs.	Open - Acceptable Response. FRA stated that it would conduct an internal review of the railroads' usage and practices concerning power-assisted switch machines in other than signaled territory and determine whether regulations are needed.	Complete an internal review. Issue regulations, as necessary.
27	07/20/06	R-06-014	Open 1.8 years. NTSB recommended that FRA require railroads to use scientifically-based principles when assigning work schedules for train crewmembers, which consider factors that impact sleep needs, to reduce the effects of fatigue.	Open - Acceptable Response. FRA stated that it lacked the statutory authority to implement NTSB's recommendation. In February 2007, the Secretary transmitted to Congress the Administration's rail safety reauthorization bill, which included language to confer the authority.	Continue to seek statutory authority.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
28	07/20/06	R-06-015	Open 1.8 years. NTSB recommended that FRA establish requirements that limit train crewmember limbo time to address fatigue.	Open - Acceptable Response. FRA stated that it lacked the statutory authority to implement NTSB's recommendation. In February 2007, the Secretary transmitted to Congress the Administration's rail safety reauthorization bill, which included language to confer the authority.	Continue to seek statutory authority.
29	10/25/06	R-06-019	Open 1.5 years. NTSB recommended that FRA extend its Track Safety Standards to all classes of track having concrete crossties. The Track Safety Standards should address, at a minimum, the following: limits for rail seat abrasion, concrete crosstie pad wear limits, missing or broken rail fasteners, loss of appropriate toeload pressure, improper fastener configurations, and excessive lateral rail movement.	Open - Acceptable Response. In April 2006, FRA created a task force to study the safety aspects of concrete crossties. The task force's purpose was to determine a recommended course of action for a concrete crosstie safety advisory. Findings from that initial effort were transferred to the Railroad Safety Advisory Committee and its Track Safety Standards Working Group continues to examine this issue with a view towards preparing a proposed rule.	Issue regulations.
30	02/03/05	R-05-001	Open 3.2 years. NTSB recommended that FRA require in Title 49 of the Code of Federal Regulations, Part 213 (Track Safety Standards), that rail cracks originating from bond wire attachments be identified as rail defects and that information be collected on the methods and locations of those attachments.	Open - Acceptable Alternative Response. FRA agreed that it was important to track rail cracks originating from bond wire attachments in the interest of prevention and for identifying the scope of the problem. However, FRA suggested an alternate approach to NTSB's recommendation and to the collection of information on the methods and locations of bond wire attachments. FRA added a new defect code to its Railroad Inspection System Personal Computer. In April 2007, FRA also revised its Track Safety Standards Compliance Manual to provide guidance to field inspectors concerning rail bond welds. In addition, the Railroad Safety Advisory Committee has agreed to review bond wire attachment methods.	Send formal notification to NTSB.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
31	12/12/05	R-05-014	Open 2.4 years. NTSB recommended that FRA require that, along main lines in non-signaled territory, railroads install an automatically activated device, independent of the switch banner that will, visually or electronically, compellingly capture the attention of employees involved with switch operations and clearly convey the status of the switch both in daylight and in darkness.	Open - Acceptable Alternative Response. FRA strongly supported NTSB's interest in reducing the risk of train accidents caused by an improperly lined hand-operated switch, but suggested an alternate approach. FRA initiated a joint project with the Burlington Northern Santa Fe Railway Company to implement the Switch Position Monitoring System, which detects an improper switch point alignment and conveys information automatically to the dispatcher. FRA is aggressively encouraging railroads to deploy similar technology. Norfolk Southern Railway Company and CSX Transportation, Inc. are implementing similar technology.	Send NTSB an update on actions. Identify plans to promote similar technology to the rail industry.
32	12/21/06	R-06-024	Open 1.4 years. NTSB recommended that FRA immediately require all rail passenger car seat backs be secured to the seat assembly.	Open - Await Response. FRA concluded that the intent of NTSB's recommendation had been met, based on its review of the requirements of existing safety regulations. On January 30, 2008, FRA sent a letter to the American Public Transportation Association to advise the commuter railroads that passenger seat backs must be secured in accordance with the standards. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as Closed Acceptable Action. FRA is awaiting a response from NTSB.	FRA is awaiting a response from NTSB.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
33	12/21/06	R-06-025	Open 1.4 years. NTSB recommended that FRA revise the language in Title 49 of the Code of Federal Regulations, Section 238.233, to define seat to include all components of the seat assembly, such as seat cushions and seat backs, that could become dislodged when subjected to accelerations specified in that section.	Open - Await Response. FRA concluded that the intent of NTSB's recommendation had been met, based on its review of the requirements of existing safety regulations. On January 30, 2008, FRA sent a letter to the American Public Transportation Association to advise the commuter railroads that passenger seat backs must be secured in accordance with the standards. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as Closed Acceptable Action. FRA is awaiting a response from NTSB.	FRA is awaiting a response from NTSB.
34	12/21/06	R-06-026	Open 1.4 years. NTSB recommended that FRA require all rail passenger car seat assemblies be dynamically tested to withstand the accelerations specified in Title 49 of the Code of Federal Regulations, Section 238.233, and require both upward and downward vertical acceleration tests.	Open - Await Response. FRA stated that current requirements of Title 49 of the Code of Federal Regulations, Section 238.233 are consistent with this recommendation. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as Closed Acceptable Action. FRA is awaiting a response from NTSB.	FRA is awaiting a response from NTSB.
35	12/21/06	R-06-027	Open 1.4 years. NTSB recommended that FRA establish crashworthiness standards for passenger car body floor structure systems.	Open - Await Response. FRA stated that establishing crashworthiness standards for the floor structure would not provide any increase in collision safety. In March 2008, FRA sent a letter to NTSB requesting this recommendation be reclassified as Closed Acceptable Action. FRA is awaiting a response from NTSB.	FRA is awaiting a response from NTSB.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
36	04/25/07	R-07-001	Open 1.0 years. NTSB recommended that FRA require railroads ensure that the lead locomotives used to operate trains on tracks not equipped with a positive train control system are equipped with an alerter.	Open - Await Response. In October 2007, FRA sent a letter to NTSB requesting this recommendation be reclassified as Open Acceptable Action. FRA is awaiting a response from NTSB. FRA's Railroad Safety Advisory Committee's Locomotive Standards Working Group reached a tentative agreement to require alerters on all new locomotives used in road service and a recommendation for retrofit is being considered. Further, the Association of American Railroads adopted an alerter standard for freight locomotives, after consulting with the Working Group.	Issue regulations, as necessary.
37	04/25/07	R-07-002	Open 1.0 years. NTSB recommended that FRA assist PHMSA in developing regulations to require that railroads immediately provide to emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train.	Open - Await Response. In October 2007, FRA sent a letter to NTSB requesting this recommendation be reclassified as Open Acceptable Action. FRA is awaiting a response from NTSB. FRA regulations require that information on the identity and location of hazardous materials be maintained for the benefit of emergency responders. However, (with FRA's encouragement), the Association of American Railroads issued a circular offering to provide hazardous materials information on the top 25 commodities to local emergency response organizations to assist in training and preparing for emergencies. In addition, (with FRA's encouragement), CSX Transportation, Inc. and Chemtrec established a real-time information process that provides car content and train consist information on a "one-call" basis. FRA continues to evaluate this process to determine if additional regulations are necessary.	Issue regulations, as necessary.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
38	04/25/07	R-07-003	Open 1.0 years. NTSB recommended that FRA require the installation of a crash- and fire-protected locomotive cab voice recorder, or a combined voice and video recorder, (for the exclusive use in accident investigations and with appropriate limitations on the public release of such recordings) in all controlling locomotive cabs and cab car operating compartments. The recorder should have a minimum 2-hour continuous recording capability, microphones capable of capturing crewmembers' voices and sounds generated within the cab, and a channel to record all radio conversations to and from crewmembers.	Open - Await Response. In October 2007, FRA sent a letter to NTSB requesting this recommendation be reclassified as Open Acceptable Action. FRA is awaiting a response from NTSB. FRA's Railroad Safety Advisory Committee continues to identify options for addressing NTSB's safety recommendation.	Issue regulations, as necessary.
39	07/14/89	R-89-048	Open 18.8 years. NTSB recommended that FRA assist and cooperate with PHMSA in amending Title 49 of the Code of Federal Regulations, Part 179, to require that closure fittings on tank cars carrying hazardous materials be designed to maintain their integrity in accidents that are typically survivable by the rail tank car.	Open - Unacceptable Response. FRA, PHMSA, and the rail industry are continuing to work together to implement NTSB's recommendation. FRA is working with the Association of American Railroads' Tank Car Committee to assist PHMSA in developing new requirements—top fitting protection on all hazardous materials tank cars—for cars built after December 31, 2008. FRA continues to research alternative top fitting protection strategies.	Send NTSB an update on the actions taken. Issue regulations.
40	03/21/02	R-02-005	Open 6.1 years. NTSB recommended that FRA require railroads to conduct ultrasonic or other appropriate inspections to ensure that rail used to replace defective segments of existing rail is free from internal defects.	Open - Unacceptable Response. On March 8, 2006, FRA issued Safety Advisory 2006-02 in direct response to NTSB's recommendation. The purpose of this advisory was to reduce the number of rail defects that occur when second-hand rail is used and recommend practices for testing, classifying, and reusing second-hand rail. However, NTSB would like FRA's advisory revised to recommend all railroads conduct ultrasonic or other appropriate inspections to ensure that all rail used as replacement rail is tested and determined to be free from internal defects. FRA's Railroad Safety Advisory Committee continues to develop a regulatory proposal to address this recommendation.	Issue regulations.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
41	06/13/03	R-03-001	Open 4.9 years. NTSB recommended that FRA promulgate new or amended regulations that will control the use of cellular telephones and similar wireless communication devices by railroad operating employees while on duty so that such use does not affect operational safety.	Open - Unacceptable Response. FRA's Railroad Safety Advisory Committee developed a draft best practices operating rule for the industry, which was approved for voluntary adoption by all major freight railroads, the vast majority of commuter railroads, and the American Short Line and Regional Railroad Association. FRA plans to develop a Safety Advisory to present this rule to the rail industry, clarify its intent, and further enhance its effectiveness.	Respond to NTSB with the results of all actions taken. Develop and issue safety advisory.
42	11/23/05	R-05-010	Open 2.4 years. NTSB recommended that FRA require train crews call out all signal indications over the radio, including clear signals, at all locations that are not equipped with automatic cab signals with enforcement of a positive train control system.	Open - Unacceptable Response. FRA's Railroad Safety Advisory Committee continues to address NTSB's concerns, although results of an evaluation conducted by FRA did not indicate a feasible means of implementing the intent of this recommendation.	Determine whether an alternative solution can be implemented.
43	12/12/05	R-05-016	Open 2.4 years. NTSB recommended that FRA require railroads implement operating measures, such as positioning tank cars toward the rear of trains and reducing speeds through populated areas, to minimize impact forces from accidents and reduce the vulnerability of tank cars transporting chlorine, anhydrous ammonia, and other liquefied gases designated as poisonous by inhalation.	Open - Unacceptable Response. On April 1, 2008, PHMSA and FRA jointly issued a NPRM to improve the crashworthiness protection of rail tank cars designed to transport poison inhalation hazard products. This NPRM included operational restrictions for trains hauling rail tank cars containing poison inhalation hazard products, among other requirements. In particular, it proposed a 30 miles per hour speed restriction in dark territory for existing tank cars transporting poison inhalation hazard products.	Respond to NTSB to update the actions taken. Issue final rule.

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

#	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA	Actions Needed by FRA
44	06/29/06	R-06-010	Open 1.8 years. NTSB recommended that FRA prohibit the use of after-arrival track warrants for train movements in dark (non-signaled) territory not equipped with a positive train control system.	Open - Unacceptable Response. FRA's Railroad Safety Advisory Committee continues to address NTSB's recommendation. Its Operating Rules Working Group met with NTSB staff while studying after-arrival track warrants. FRA prepared a draft rule strictly limiting use of after-arrival track warrants that is under active discussion by the Operating Rules Working Group.	Determine the safety and efficiency trade-offs associated with issuing after-arrival track warrants under differing operating conditions. Respond to NTSB with the results.

OIG Analysis

Exhibit D. Open NTSB Rail Safety Recommendations From 1989 Through 2007

EXHIBIT E. OPEN OIG RAIL SAFETY RECOMMENDATIONS FROM 2003 THROUGH 2007

#	Issue Date	Report Title and No.	Open OIG Recommendation	Actions Taken	Actions Needed
1	06/16/04	Audit of the Highway-Rail Grade Crossing Safety Program MH-2004-065	Open 3.9 years. The Department should promote mandatory reporting requirements for railroads and states through rulemaking or legislation to improve the accuracy and completeness of FRA's national grade crossing inventory data, to identify high-risk crossings and strategies to mitigate risks. The data should also be used to monitor the effectiveness of the new action plan's strategies, identify needed changes, and make adjustments, as necessary. FRA and the Federal Highway Administration should work cooperatively to accomplish mandatory inventory reporting.	FRA stated that it lacked the authority to require reports from the states on the characteristics of grade crossings and needed Congress to grant that authority. Proposed language that would grant the Department the authority to require states and railroads to submit reports to FRA on the characteristics of grade crossings was included in the Administration's rail safety reauthorization bills that were transmitted to Congress in 1999, 2002, 2003, and most recently in February 2007. As of April 2008, the proposed language had not been enacted.	Continue to support enactment of the Department's proposed language.
2	11/28/05	Audit of Oversight of Highway-Rail Grade Crossing Accident Reporting, Investigations, and Safety Regulations MH-2006-016	Open 2.4 years. FRA should clarify accident reporting to the National Response Center by requiring railroads to report any grade crossing collision resulting in a fatality at the scene or within 24 hours of the accident.	In January 2008, FRA officials stated that they would clarify existing National Response Center reporting requirements by adding language limiting the railroads responsibility for calling in fatalities to those that occur within the first 24 hours of a collision. During 2008, FRA plans to include this clarification in a NPRM on miscellaneous amendments to Title 49 of the Code of Federal Regulations, Part 225, on Accident/Incident Reporting.	Issue NPRM by December 31, 2008, as planned. Issue final rule.

#	Issue Date	Report Title and No.	Open OIG Recommendation	Actions Taken	Actions Needed
3	05/03/07	The Federal Railroad Administration Can Improve Highway-Rail Grade Crossing Safety by Ensuring Compliance With Accident Reporting Requirements and Addressing Sight Obstructions MH-2007-044	Open 1.0 years. FRA should strengthen safety oversight by ensuring that the railroads comply with mandatory requirements to report each grade crossing collision to FRA by issuing a violation and assessing a civil penalty each time a railroad fails to submit a grade crossing collision report in accordance with Federal requirements, on a consistent basis. Moreover, FRA should assess higher civil penalties against each railroad that repeatedly fails to report crossing collisions.	On December 5, 2006, FRA issued proposed statements of agency policy (proposed schedules of civil penalties for rail safety violations) that included a line-item increasing the dollar amount of the civil penalty ordinarily assessed against a railroad for failing to report a reportable accident/incident, including a grade crossing collision. Under this proposal, the guideline fine for failing to report a grade crossing collision would increase from $2,500 to $5,000. In addition, the guideline penalty for a willful violation of this requirement would increase from $6,500 to $9,000. In September 2007, FRA issued a final rule increasing the ordinary maximum civil penalty for a rail safety violation from $11,000 to $16,000, based on inflation. As a result, FRA continues to further revise its December 2006 proposed penalty schedules.	Issue revised proposed penalty schedules by December 31, 2008, as planned.
4	05/03/07	The Federal Railroad Administration Can Improve Highway-Rail Grade Crossing Safety by Ensuring Compliance With Accident Reporting Requirements and Addressing Sight Obstructions MH-2007-044	Open 1.0 years. FRA should work with the Federal Highway Administration to develop model legislation for states to improve safety by addressing sight obstructions at grade crossings that are equipped solely with signs, pavement markings, and other passive warnings.	FRA officials stated that they have prepared an initial draft of model legislation for states to improve safety by addressing sight obstructions at grade crossings with passive (non-automated) warning signs.	Publish model legislation by August 31, 2008, as planned.

OIG Analysis

Exhibit E. Open OIG Rail Safety Recommendations From 2003 Through 2007

EXHIBIT F. MAJOR CONTRIBUTORS TO THIS REPORT

THE FOLLOWING INDIVIDUALS CONTRIBUTED TO THIS REPORT.

Name	Title
Brenda R. James	Program Director
Wendy M. Harris	Project Manager
Thomas E. Lehrich	Chief Counsel
Harriet E. Lambert	Writer-Editor

APPENDIX. MANAGEMENT COMMENTS

U.S. Department of Transportation
Federal Railroad Administration

Memorandum

Date: JUL 28 2008 Reply to Attn of:

Subject: Response to the Draft Report Entitled "Actions Taken and Needed to Implement Mandates and Recommendations Regarding Rail Safety"--Project No. 08C3002C000

From: Joseph H. Boardman
Administrator

To: David Tornquist
Assistant Inspector General for Rail and Maritime
Program Audits and Economic Analysis

Thank you for your memorandum of July 10, 2008, transmitting the Office of the Inspector General's (OIG) draft report and inviting our comments. We at the Federal Railroad Administration (FRA) appreciate not only the work and insight of your staff in developing and preparing this report, but also their unfailing courtesy and cooperation dealing with FRA's staff throughout the audit. FRA's responses to the draft recommendations are provided below, and FRA's comments on the rest of the draft report are attached.

OIG'S DRAFT RECOMMENDATIONS TO FRA

"1. Establish a centralized process for documenting, tracking, and monitoring congressional rail safety mandates that includes planned and actual milestones."

FRA's Response to Recommendation 1: FRA concurs with this recommendation. FRA agrees that the current process for documenting, tracking, and monitoring congressional rail safety mandates can be improved. FRA agrees that a centralized process will make information on the actions taken to implement congressional rail safety mandates and meet statutory deadlines more readily available for use in planning work assignments, establishing milestones, assessing progress, preparing budgets, and reporting accomplishments.

FRA plans to use its new Microsoft SharePoint tracking system to help implement this recommendation. SharePoint is an intranet-based application with the flexibility to specify access for reading and editing. The Office of Safety has just begun to use the platform for safety regulatory planning and tracking, and mandates assigned to other offices will also be incorporated.

"2. Establish procedures to ensure that NTSB receives an:

"a. initial response for each rail safety recommendation within 90 days of issuance and

"b. implementation timetable for each rail safety recommendation that FRA agrees to implement."

FRA's Response to Recommendation 2.a.: FRA concurs with this recommendation. Effective immediately, FRA has revised its current procedures for handling NTSB safety recommendations. Under these new procedures, upon the Office of Safety's receipt, on or after the effective date of the procedures, of an NTSB safety recommendation, a memorandum will be issued under the signature of the Director, Office of Safety Assurance and Compliance, addressed to the specific divisional staff director (Staff Director) who holds responsibility for addressing the particular safety recommendation. Upon receipt of the memorandum, the divisional staff director or his or her delegate will have 60 days to draft and return the initial response to the Office of Safety Assurance and Compliance's NTSB Liaison Officer. Upon receipt of the initial draft from the appropriate staff director, the NTSB Liaison Officer will finalize the response and input the response into the system for final approval of the draft of FRA's initial response to the NTSB recommendation within FRA and for dissemination of FRA's initial response to the recommendation to NTSB.

In addition, each month the Deputy Associate Administrator for Safety Compliance and Program Implementation will hold a "stand up" meeting with the relevant parties (the Deputy Associate Administrator for Safety Standards and Program Development, the Director of the Office of Safety Assurance and Compliance, the NTSB Liaison Officer, and the relevant Staff Directors) to discuss how the agency will respond to the NTSB recommendations. This meeting will be held in conjunction with the monthly meetings on the status of waivers and block signal applications. A passcode will be provided to all the attendees so that those on travel can participate in the meeting. FRA's NTSB Liaison Officer will issue a monthly report that includes each overdue FRA initial response to an NTSB recommendation; the monthly report will be used for the monthly "stand up" meetings. FRA will continue to track the initial letters in FRA's CCM database or an alternative database, issue appropriate management reports, and follow up.

FRA's Response to Recommendation 2.b.: FRA concurs in Recommendation 2.b. but with explanation. FRA endeavors to include in its responses to the Board information regarding the general timetables for proposed actions. However, it must be recognized that the actual milestones as executed may differ substantially because of factors outside FRA's control such as the following—

a. In many cases actions suggested by the Board need to be considered within a larger context, and imperatives associated with the larger issues involved may affect schedules. For example, intervening statutory mandates sometimes divert staff and other resources to competing priorities, and economic and alternatives analysis may indicate that some other form of action is appropriate or that no known alternative action is supportable.

b. Recent Office of Management and Budget guidance has further complicated the planning and clearance process for regulatory development, and the Office of the Secretary of Transportation retains the discretion to approve or disapprove even non-significant regulatory actions.

c. Transitions in presidential administrations introduce delays in the form of regulatory freezes (in effect throughout the Federal Government for significant rules after November 1, 2008), and perhaps for some category of actions as a new administration enters.

For these reasons, FRA maintains contact with the Board through a variety of channels to apprise the Board of the status of planned actions, to ensure, when possible, participation by key Board staff (particularly within the Railroad Safety Advisory Committee process), and to ensure that Board recommendations, like other safety opportunities, are handled within a proper framework of agency priorities. Accordingly, FRA will enclose with the agency's initial response to a Board recommendation a tentative timetable looking forward insofar as possible and will periodically update the timetable as circumstances clarify or in response to altered priorities.

Appendix. Management Comments