U.S. Department of Transportation
Federal Railroad Administration

Report to Congress:

2021 Actions to Implement Unmet Statutory Mandates and Address Open Recommendations Regarding Railroad Safety

Rail Safety Improvement Act of 2008, Section 106,
Public Law 110-432

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2021 Actions to Implement Unmet Statutory Mandates and Address Open Recommendations Regarding Railroad Safety

Contents

Abbreviations, Acronyms, and Phrases in this Report

AAR	Association of American Railroads
ANPRM	Advance Notice of Proposed Rulemaking
ATD	Anthropomorphic Test Device
CFR	Code of Federal Regulations
CRM	Crew Resource Management
DOT	U.S. Department of Transportation (Department)

EEBA	Emergency Escape Breathing Apparatus
FAST Act	*Fixing America's Surface Transportation Act*, P.L. 114-94
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRMP	Fatigue Risk Management Plan
FR	Federal Register
FRA	Federal Railroad Administration
IIJA	*Infrastructure Investment and Jobs Act*, P.L. 117-58
MUTCD	Manual on Uniform Traffic Control Devices
MOW	Maintenance of Way
NIP	National Inspection Plan
NPRM	Notice of Proposed Rulemaking
NTSB	National Transportation Safety Board
OIG	U.S. Department of Transportation Office of Inspector General
OSA	Obstructive Sleep Apnea
PAT	Post-Accident Toxicological (Testing)
PHMSA	Pipeline and Hazardous Materials Safety Administration
P.L.	Public Law
PTC	Positive Train Control
RRP	Risk Reduction Program
RSAC	Railroad Safety Advisory Committee
RSIA	*Rail Safety Improvement Act of 2008*, P.L. 110-432
RWP	Roadway Worker Protection
SSP	System Safety Program
SUPPORT Act	*Substance Use–Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act*, P.L. 115-271
TAW	Train Approach Warning
Volpe	U.S. DOT Volpe National Transportation Systems Center
U.S.C.	United States Code

2021 Actions to Implement Unmet Statutory Mandates and Address Open Recommendations Regarding Railroad Safety

Legislative Direction

Source: Rail Safety Improvement Act of 2008 (RSIA), section 106

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 Federal Railroad Administration (FRA)'s 2019/2020 Report

In preparing this report on behalf of the U.S. Secretary of Transportation, FRA relied on the previous report titled, *2019 and 2020 Actions to Implement Unmet Statutory Mandates and Address Open Recommendations Regarding Railroad Safety* (2019/2020 Report), which was transmitted to the appropriate congressional committees to fulfill this requirement. The 2019/2020 Report included all mandates and recommendations open as of December 31, 2020. Mandates and recommendations either added to or removed from those discussed in the 2019/2020 Report are noted below.

Treatment of Railroad Safety Mandates in RSIA, the Fixing America's Surface Transportation (FAST) Act, and the Infrastructure Investment and Jobs Act (IIJA)

RSIA and the FAST Act introduced numerous mandates regarding railroad safety. Some FAST Act mandates require action to be taken after the time period for this report, and FRA has not included in this report mandates with statutory deadlines after December 31, 2021. Similarly, the IIJA, enacted in 2021, introduced numerous mandates regarding railroad safety. FRA has not included in this report the IIJA mandates because those mandates require action to be taken after the time period for this report.

Discussion of Exhibit A: Unmet Statutory Rail Safety Mandates

- Exhibit A lists the seven statutory rail safety mandates that were unmet and actions to implement them, as of December 31, 2021. The 2019/2020 Report included these seven statutory mandates and two additional mandates on highway-rail grade crossing safety, including one mandate related to State grade crossing safety action plans and one mandate related to private highway-rail grade crossings. During 2021, FRA addressed

the two mandates pertaining to highway-rail grade crossing safety and the seven statutory mandates that remain as of December 31, 2021 are:

- Emergency escape breathing apparatus,
- Development and use of rail safety technology,
- Hours of service regulatory authority,
- Railroad safety risk reduction,
- Safe rail transport of certain radioactive materials,
- Recording devices, and
- Alcohol and controlled substance testing of mechanical employees.

During calendar year 2021 and to date in 2022, FRA has continued to work toward addressing these seven statutory mandates. For example, FRA published a notice of proposed rulemaking (NPRM) responding to the mandate related to alcohol and controlled substance testing of mechanical employees in early 2021 and a final rule implementing that mandate in February 2022.[1] During 2021, in response to the mandate of 49 U.S.C. § 5105(c), FRA continued to analyze the need for a regulation related to the rail transportation of spent nuclear fuel and high level radioactive waste. After considering the rail safety advances made as a result of the constantly evolving regulatory and research and development programs of FRA, the Nuclear Regulatory Commission, and other relevant Federal and State governmental agencies, FRA concluded that no further action on this mandate is necessary.[2] Additionally, in 2021, reflecting the Administration's commitment to addressing outstanding mandates, and after carefully considering public comments received in response to several NPRMs published in 2019 and 2020, FRA made substantial progress in developing and drafting responsive final rules, which are identified on the Department's current regulatory agenda (available at reginfo.gov) and are anticipated to be published in the upcoming months (e.g., Fatigue Risk Management,[3] Locomotive Recording Devices).

FRA has excluded from Exhibit A statutory mandates previously implemented or not due before January 1, 2022. FRA also excluded ongoing mandates requiring FRA to produce regular reports, conduct regular safety inspections, establish rail safety programs, or take other actions with no specific deadline or endpoint. FRA works to fulfill these mandates, recognizes the need

[1] 87 FR 5719 (Feb. 2, 2022).

[2] FRA has listed the mandate of 49 U.S.C. § 5105(c) in this report, but as FRA has concluded no further action is necessary under this mandate, with this report FRA considers the mandate met.

[3] Published 87 FR 35660 (June 13, 2022).

to take future actions, and has processes in place to fulfill them. Upon request, FRA will provide the status of any mandate not included in Exhibit A.

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

Exhibit B lists the 78 open rail safety recommendations NTSB issued to FRA and FRA actions to address them, as of December 31, 2021.

Of the 75 recommendations in the 2019/2020 Report, NTSB closed two: R-08-06 and R-14-11. Accordingly, these recommendations are not listed in Exhibit B.

Since FRA sent Congress the 2019/2020 Report, NTSB issued five new recommendations. The new recommendations, which are included in this report, are:

- R-20-28
- R-20-29
- R-21-01
- R-21-02
- R-21-03

Subpart I of Exhibit B lists the 36 open NTSB recommendations that, as of December 31, 2021, FRA was actively working to address. The 36 NTSB recommendations are grouped by their NTSB classification as follows: items 1 to 16, *Open—Acceptable Response*; items 17 to 21, *Open—Acceptable Alternative Response*; items 22 to 27, *Open—Initial Response Received*; items 28 to 29, *Open—Await Response*; and items 30 to 36, *Open—Unacceptable Response*. Within each group, NTSB recommendations are listed chronologically by the date NTSB issued the recommendation, with the oldest first, and, within the same date of issuance, by the number of the recommendation.

Subpart II of Exhibit B lists the 42 NTSB recommendations that FRA considers satisfied based on its actions that address the intent of the recommendation. FRA intends to take no further action on these recommendations and has asked (or plans to ask) NTSB to close them. These 42 recommendations (item numbers 37 to 78) are listed separately, because FRA is not taking any further action on these recommendations. The recommendations in Subpart II are listed chronologically by the date NTSB issued the recommendation, with the oldest listed first and, within the same date of issuance, by the number of the recommendation.

FRA remains committed to working with NTSB to address the agency's outstanding recommendations to FRA and has recently begun holding more frequent, quarterly meetings with NTSB to discuss open recommendations and potential solutions to those recommendations.

Discussion of Rail Safety Recommendations to FRA by the Office of Inspector General (OIG)

As of December 31, 2021, there were no open rail safety recommendations from the Department's OIG.

The 2019/2020 Report identified four rail safety recommendations OIG made to FRA that were open as of December 31, 2020. These recommendations related to FRA's oversight of railroads' drug and alcohol programs and conductor certification programs. In 2021, OIG closed each of these recommendations.

Conclusion

The Department recognizes the significance of each unmet statutory mandate and open NTSB safety recommendation. FRA will continue to focus its efforts on implementing each unmet mandate and addressing each open recommendation in a timely manner to the extent practicable.

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Exhibit A: Unmet Statutory Rail Safety Mandates

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
1	RSIA, Public Law (P.L.) 110-432, Div. A, October 16, 2008	Section 413 Emergency Escape Breathing Apparatus Amended 49 United States Code (U.S.C.) by adding new section 20166	"Not later than 18 months after the date of enactment of RSIA, the Secretary of Transportation shall prescribe regulations that require railroad carriers—(1) to provide emergency escape breathing apparatus suitable to provide head and neck coverage with respiratory protection for all crewmembers in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of release; (2) to provide convenient storage in each freight train locomotive to enable crewmembers to access such apparatus quickly; (3) to maintain such equipment in proper working condition; and (4) to provide their crewmembers with appropriate training for using the breathing apparatus."	On December 30, 2016, FRA issued a guidance document for railroads to use to develop effective emergency escape breathing apparatus (EEBA) programs to protect railroad employees transporting hazardous materials posing an inhalation hazard. In this guidance document, FRA highlights factors to consider when selecting appropriate EEBA devices and explains various programmatic components to evaluate when developing an EEBA program.	Issue a Supplemental Notice of Proposed Rulemaking in 2023.

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
2	RSIA, P.L. 110-432, Div. A, October 16, 2008	Section 406 Development and Use of Rail Safety Technology Amended 49 U.S.C. by adding new section 20164	"(a) In General—Not later than 1 year after enactment of the [RSIA], the Secretary of Transportation shall prescribe standards, guidance, regulations, or orders governing the development, use, and implementation of rail safety technology in dark territory, in arrangements not defined in section 20501 or otherwise not covered by Federal standards, guidance, regulations, or orders that ensure the safe operation of such technology, such as (1) switch position monitoring devices or indicators; (2) radio, remote control, or other power-assisted switches; (3) hot box, high water, or earthquake detectors; (4) remote-control locomotive zone limiting devices;(5) slide fences; (6) grade crossing video monitors; (7) track integrity warning systems; or (8) other similar rail safety technologies, as determined by the Secretary."	The positive train control (PTC) mandate under RSIA section 104 delayed work on this project. However, as of December 31, 2020, PTC has been fully implemented on all mandated track segments and FRA has supported PTC implementation as well as implementation of the final rules related to Risk Reduction Programs (RRPs) and System Safety Programs (SSPs). (Those rules were published on February 18, 2020, and March 4, 2020, respectively.) See Item 4 of this Exhibit A. FRA has held this issue in abeyance pending full PTC implementation because technology implementation plans expected in the railroads' RRPs and SSPs required under RSIA section 103 are expected to address, in part, the risk of railroad operations in dark territory.	Evaluate need for rulemaking, considering full PTC implementation and railroads' implementation of the RRP and SSP rules.

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
3	RSIA, P.L. 110-432, Div. A, October 16, 2008	Section 108 Hours of Service Regulatory Authority Amended 49 U.S.C. by adding new section 21109	"(e) Pilot Projects.—(1) In General.—Not later than 2 years after the date of enactment of RSIA, the Secretary shall conduct at least 2 pilot projects of sufficient size and scope to analyze specific practices which may be used to reduce fatigue for train and engine and other railroad employees as follows: (A) A pilot project at a railroad or railroad facility to evaluate the efficacy of communicating to employees notice of their assigned shift time 10 hours prior to the beginning of their assigned shift as a method for reducing employee fatigue. (B) A pilot project at a railroad or railroad facility to evaluate the efficacy of requiring railroads who use employee scheduling practices that subject employees to periods of unscheduled duty calls to assign employees to defined or specific unscheduled call shifts that are followed by shifts not subject to call, as a method for reducing employee fatigue."	FRA must receive requests from railroads and rail labor organizations to fulfill this requirement properly. FRA has not received any requests but continues to encourage participation. Once parties volunteer, FRA will commence pilot programs to analyze practices that could reduce fatigue for train and engine and other railroad employees. In one project, a railroad must provide 10 hours of notice of the next assigned shift; in the other project, a railroad must assign employees to defined shifts subject to unscheduled calls, followed by shifts not subject to unscheduled calls.	Continue efforts to encourage affected parties to participate in the pilot projects. If no willing participants are identified, by March 15, 2023, FRA will submit a report to Congress as required by the mandate of Section 22408 of the Infrastructure Investment and Jobs Act (P.L. 117-58).

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
4	RSIA, P.L. 110-432, Div. A, October 16, 2008	Section 103 Railroad Safety Risk Reduction Amended 49 U.S.C. by adding new section 20156	"(a) In General.—(1) Program Requirement.—Not later than 4 years after the date of enactment of RSIA, the Secretary of Transportation, by regulation, shall require each railroad carrier that is a Class I railroad, a railroad carrier that has inadequate safety performance (as determined by the Secretary), or a railroad carrier that provides intercity rail passenger or commuter rail passenger transportation—(A) to develop a railroad safety risk reduction program under subsection (d) that systematically evaluates railroad safety risks on its system and manages those risks in order to reduce the numbers and rates of railroad accidents, incidents, injuries, and fatalities; (B) to submit its program, including any required plans, to the Secretary for review and approval; and (C) to implement the program and plans approved by the Secretary."	FRA initiated three rulemakings to meet this mandate: (1) the RRP rule (which responds to the mandate for Class I railroads and railroads with inadequate safety performance), (2) the SSP rule (which responds to the mandate for passenger rail operations); and (3) the fatigue risk management plan (FRMP) rulemaking, which will address fatigue issues as part of the RRP and SSP requirements. FRA published the RRP final rule on February 18, 2020. FRA published the first SSP final rule on August 12, 2016, and subsequently stayed the rule until March 4, 2020. FRA issued a final rule amending the SSP rule on March 4, 2020. FRA published an FRMP NPRM on December 22, 2020, and as of December 31, 2021, a final rule responding to all comments received was under development.	Issue final rule requiring FRMPs in 2022.

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
5	*Hazardous Materials Transportation Uniform Safety Act of 1990*, P.L. 101-615, November 16, 1990	Section 15 Safe Rail Transport of Certain Radioactive Materials Amended section 116(b) of the *Hazardous Materials Transportation Act* (then 49 U.S.C. App. 1813, now codified at 49 U.S.C. 5105(c))	"(b) Safe Rail Transport of Certain Radioactive Materials—Within 24 months after the date of enactment of this section, taking into consideration the findings of the study conducted pursuant to subsection (a), the Secretary shall amend existing regulations as the Secretary deems appropriate to provide for the safe transportation by rail of high-level radioactive waste [HLRW] and spent nuclear fuel [SNF] by various methods of rail transportation, including by dedicated train."	FRA sent Congress its section (a) final report on September 27, 2005. Since then, the expected increase in rail shipments of spent nuclear fuel and high-level radioactive waste has not occurred. FRA's comprehensive regulatory and research and development programs have led to rail safety advances directly relevant to this mandate (e.g., implementation of PTC technology and RRP and SSP regulations). These advances, with the hazardous materials routing regulations the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued since enactment of this mandate, have led FRA to conclude that no further action is necessary on this mandate.	FRA has concluded that no further action on this mandate is necessary given the existing regulatory framework surrounding the rail transportation of SNF/HLRW. Accordingly, FRA considers this mandate met. FRA will continue to work with transportation planners to ensure the safe movement of these materials.

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
6	FAST Act, P.L. 114-94, December 4, 2015	Section 11411 Recording Devices Amended 49 U.S.C. by adding new section 20168	"(a) In General.— Not later than 2 years after the date of enactment of the Passenger Rail Reform and Investment Act of 2015, the Secretary of Transportation shall promulgate regulations to require each railroad carrier that provides regularly scheduled intercity rail passenger or commuter rail passenger transportation to the public to install inward- and outward-facing image recording devices in all controlling locomotive cabs and cab car operating compartments in such passenger trains."	FRA published an NPRM responsive to this mandate on July 24, 2019. As of December 31, 2021, a final rule responding to all comments received was under development.	Issue final rule in 2022.

Item	Citation	Section	Unmet Statutory Mandate	Actions Taken by FRA	Actions to Be Taken by FRA
7	*Substance Use–Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act*, P.L. 115-271 (SUPPORT Act), P.L. 115-271, Oct. 24, 2018.	Section 8102 Alcohol and Controlled Substance Testing of Mechanical Employees	"(a) In General.—Not later than 2 years after the date of enactment of this Act, the Secretary of Transportation shall publish a rule in the Federal Register (FR) revising the regulations promulgated under section 20140 of title 49, United States Code, to cover all employees of railroad carriers who perform mechanical activities. "(b) Definition of Mechanical Activities.—For the purposes of the rule under subsection (a), the Secretary shall define the term "mechanical activities" by regulation."	FRA published an NPRM responsive to this mandate on January 8, 2021 and, as of December 31, 2021, a final rule responding to all comments received was under development.	None. Final rule published February 2, 2022. 87 FR 5719.

Exhibit B: Open NTSB Rail Safety Recommendations to FRA

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
1	5/10/2012	R-12-17	Establish an ongoing program to monitor, evaluate, report on, and continuously improve fatigue risk management systems implemented by operating railroads to identify, mitigate, and continuously reduce fatigue-related risks for personnel performing safety-critical tasks, with particular emphasis on biomathematical models of fatigue.	Section 103 of RSIA mandates that FRA, as the Secretary's delegate, issue regulations requiring each covered railroad to include an FRMP in its railroad safety risk reduction program that meets certain statutory requirements. In particular, the regulations must require covered railroads to review and revise their FRMPs at least once every 2 years. RSIA also requires FRA to review railroad RRPs to ensure the railroads are complying with their plans. FRA is working on the FRMP rule to meet the fatigue risk management provisions in RSIA. On December 22, 2020, an NPRM for this rule was issued, and as of December 31, 2021, a final rule responding to all comments received was under development.	Issue FRMP final rule in 2022. As of December 31, 2021, a final rule responding to all comments received was under development.
2	5/10/2012	R-12-18	Conduct research on new and existing methods that can identify fatigue and mitigate performance decrements associated with fatigue in on-duty train crews.	See FRA's response to R-12-17 (Exhibit B, item 1). FRA continues to conduct relevant research to address the section 103 of RSIA mandate for each covered railroad's RRP to include an FRMP.	Continue research. Issue FRMP final rule in 2022.
3	5/10/2012	R-12-19	Require the implementation of methods that can identify fatigue and mitigate performance decrements associated with fatigue in on-duty train crews that are identified or developed in response to R-12-18.	See FRA's response to R-12-17 (Exhibit B, item 1). FRA received assistance from a Railroad Safety Advisory Committee (RSAC) working group and the FRMP rule under development will be responsive to this recommendation.	Issue FRMP final rule in 2022.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
4	1/28/2013	R-12-39	Develop side impact crashworthiness standards (including performance validation) for passenger railcars that provide a measurable improvement compared to the current regulation for minimizing encroachment to and loss of railcar occupant survival space.	FRA is conducting research on passenger equipment sidewall structure. However, current crashworthiness research emphasis is greater in other areas, such as glazing integrity. Because glazing is attached to the carbody sidewall, it is important to coordinate the glazing integrity and sidewall structure research. FRA directs and develops the research priorities. U.S. DOT Volpe National Transportation Systems Center (Volpe) is conducting this research on behalf of FRA. On November 21, 2018, FRA published a final rule amending its passenger equipment safety standards. This rulemaking updated and enhanced regulations governing safety of passenger equipment, including adoption of criteria facilitating the use of contemporary technology, such as crash energy management, to provide additional options for railroads and suppliers to protect passengers in a collision.	Complete research.
5	1/28/2013	R-12-40	Once the side impact crashworthiness standards are developed in R-12-39, revise 49 Code of Federal Regulations (CFR) 238.217, *Side Structure,* to require that new passenger railcars be built to these standards.	See response to R-12-39 (Exhibit B, item 4).	Complete research; revise regulations, if necessary.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
6	12/02/2014	R-14-74	Develop a performance standard to ensure that windows (e.g., glazing, gaskets, and any retention hardware) are retained in the window opening structure during an accident and incorporate the standard into 49 CFR 238.221 and 238.421 to require that passenger railcars meet this standard.	Volpe is conducting this research on FRA's behalf. FRA directs and develops the research priorities. Volpe began work on this research in September 2015, and the research is ongoing. Volpe's work includes the following: (1) a review of current glazing regulations and the competing practical requirements placed on glazing systems; (2) a review of recent accidents in which passenger ejection from window openings due to dislodged glazing panes caused fatalities or injuries; and (3) a research proposal to define the problem, assess current glazing performance, and recommend prototype glazing-system modifications to improve performance.	Complete research, in conjunction with vehicle occupant protection system research mandated by Section 22420 of the IIJA; issue regulations, if necessary.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
7	12/30/2014	R-14-75	Revise 49 CFR Part 213 to define specific allowable limits for combinations of track conditions, none of which individually amounts to a deviation from FRA regulations that requires remedial action, but which, when combined, require remedial action.	In March 2013, FRA published a final rule on vehicle-track interaction safety standards that established new requirements to address unsafe combinations of track alignment and surface conditions. 78 FR 16051. FRA's track geometry inspection vehicles are programmed to detect combinations of the track geometry conditions identified in the final rule. In addition to the final rule, the full RSAC accepted task 15-02 in 2015 to consider current or proposed track geometry requirements and other relevant information in making recommended changes to the full RSAC. After RSAC's charter expired in May 2018, and FRA rechartered RSAC in September 2018, the newly formed RSAC accepted a task on this issue and assigned the task to the RSAC Track Safety Standards Working Group. The working group met once in 2019; twice in 2020; and three times in 2021. The group continues to work on this issue.	Consider any resulting RSAC recommendations and if necessary, revise regulations.
8	12/30/2014	R-14-76	Once [FRA has] completed the actions specified in safety recommendation R-14-75, program your geometry inspection vehicles to detect combinations of conditions that require remedial action.	See response to R-14-75 (Exhibit B, item 7).	Adjust geometry inspection vehicles, if necessary.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
9	6/9/2016	R-16-33	Modify FRA Form F 6180.54 (Rail Equipment Accident/Incident Report) to include the number of crewmembers in the controlling cab of the train at the time of the accident to evaluate the safety adequacy of current crew size regulations.	FRA previously asked RSAC to consider changes and updates to 49 CFR part 225, *Railroad Accidents/Incidents: Reports Classification, and Investigations*, including the addition of new or desired fields of information to be collected on Form F 6180.54. RSAC accepted a task on this issue and created the RSAC Part 225 Accident Reporting Working Group. The working group met in September 2019, October 2019 (via teleconference), December 2019 (via teleconference), February 2020, September 2020 (virtually), January 2021 (virtually), and August 2021 (virtually). The working group considered many potential revisions to 49 CFR part 225, and associated issues. In November 2021, FRA determined that it had gained sufficient insight from these discussions with all members of the RSAC to move ahead with a rulemaking to update Part 225, and then deactivated the RSAC working group.	Consider input of the RSAC Part 225 Accident Reporting Working Group and, through rulemaking, revise Form F 6180.54 and part 225, if appropriate.
10	6/9/2016	R-16-34	After FRA Form F 6180.54 is modified as specified in R-16-33, use the data regarding number of crewmembers in the controlling cab of the train at the time of the accident to evaluate the safety adequacy of current crew size regulations.	See response to R-16-33 (Exhibit B, item 9).	If changes to Form F 6180.54 are implemented, FRA will review the data captured on the form as necessary to evaluate FRA safety requirements.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
11	3/9/2017	R-17-03	Evaluate the risks posed to train crews by hazardous materials transported by rail, determine the adequate separation distance between hazardous materials cars and locomotives and occupied equipment that ensures the protection of train crews during both normal operations and accident conditions, and collaborate with PHMSA to revise 49 CFR 174.85 to reflect those findings.	FRA evaluated the risks posed to train crews by hazardous materials transported by rail and developed and evaluated a methodology to establish an appropriate separation distance from occupied locomotives or equipment and the hazardous materials cars in a train, to ensure the protection of train crews during normal operations, as well as during accidents. Because PHMSA is the agency with statutory authority to implement the results of this evaluation, FRA has collaborated with PHMSA to develop proposed revisions to 49 CFR § 174.85. PHMSA intends to address this issued in the HM-265A Advance Notice of Proposed Rulemaking (ANPRM), which is projected for publication later in calendar year 2022.	Continue to assist PHMSA as necessary to issue regulation.
12	12/28/2017	R-17-18	Require railroads to install technology on hi-rail, backhoes, other independently operating pieces of maintenance-of-way (MOW) equipment, and on the leading and trailing units of sets of MOW equipment operated by maintenance workers, to provide dispatchers and the dispatch system an independent source of information on the locations of this equipment to prevent unauthorized incursions by trains onto sections of track where maintenance activities are taking place, in accordance with the Congressional mandate under RSIA.	FRA informed NTSB that the agency would evaluate the feasibility of implementing this recommendation, which could include referring this recommendation to RSAC for consideration	Complete evaluation of feasibility of implementing recommendation and, if appropriate, refer to RSAC for consideration.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
13	1/11/2018	R-17-32	Research and evaluate wheel impact load thresholds to find remedial actions that address the mechanical condition of tank cars used in high-hazard flammable trains.	FRA and the railroad industry are collaborating on ways to test and determine the reliability of various wayside defect detection equipment, including wheel impact load detectors. While a perfect determination is not currently possible, current research shows that a combination of a high kip reading and a wheel rim thickness of one inch or less are, together, a good predictor of a potential broken wheel. On June 28, 2018, FRA sent a letter to NTSB stating FRA would take no further action and asking NTSB to close this recommendation. In a September 16, 2019, letter, NTSB requested that FRA reconsider its position and reclassified this recommendation as *Open—Acceptable Response*.	After further discussion with NTSB, FRA is reconsidering whether further research and evaluation of wheel impact load thresholds is warranted. Accordingly, FRA and the railroad industry will continue to collaborate on ways to test and determine the reliability of various wayside defect detection equipment, including wheel impact load detectors.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
14	1/11/2018	R-17-34	Collaborate in the evaluation of safe kip thresholds to determine the remedial actions for suspected defective wheel conditions in high-hazard flammable train service based upon equipment detector data, and revise FRA Safety Advisory 2015-01 and the Association of American Railroads interchange rules.	See responses to R-17-32 and R-17-33 (Exhibit B, items 13 and 35). The Association of American Railroads (AAR) amended its rules in January 2016 to authorize removal of wheels with a dynamic load of 50 kips or more in combination with a rim thickness of 1 inch or less. Because AAR changed its rules, FRA does not currently see the need to revise Safety Advisory 2015-01. FRA believes the AAR rule change is sufficient to meet the needs identified in this recommendation. On June 28, 2018, FRA sent a letter to NTSB asking it to close this recommendation. In a September 16, 2019, letter, NTSB requested FRA reconsider its position on this recommendation and classified the response as *Open—Acceptable Response*.	After further discussion with NTSB, FRA is working to confirm its finding that the AAR rule change is sufficient to meet the needs identified in this recommendation and FRA will evaluate continuing validity of Safety Advisory.

Subpart I Open—Acceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
15	2/14/2018	R-18-02	Include the Collision Hazard Analysis Guide for Commuter and Intercity Passenger Rail Service as part of the regulation or part of a detailed compliance manual to assist railroads in implementing 49 CFR Part 270.	The Collision Hazard Analysis Guide is available on FRA's Web site[4] and FRA has been conducting outreach and assistance to all stakeholders involved with implementation of 49 CFR part 270.	FRA will continue to provide outreach and assistance to all stakeholders, and continue to make available online the Collision Hazard Analysis Guide to passenger rail operations implementing their SSPs.
16	10/9/2018	R-18-25	Study available technologies that automatically alert maintenance-of-way workers fouling tracks of approaching trains, then require that such technology be implemented as a redundant protective measure.	Implementing R-18-25 depends on such devices being commercially available and reliable. On April 30, 2019, FRA sent a letter asking NTSB to reclassify this recommendation as *Open—Acceptable Response*, while FRA conducts a study of available technologies. If FRA's study finds that technologies with the requisite reliability are commercially available and feasible to implement, FRA will consider requiring them.	Complete study of available technologies and determine its feasibility to be used as stated in the recommendation.

[4] Available at https://railroads.dot.gov/elibrary/collision-hazard-analysis-guide-commuter-and-intercity-passenger-rail-service.

Subpart I Open—Acceptable Alternative Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
17	1/13/2000	R-00-02	Develop, then periodically publish, an easy-to-understand source of information for train operating crewmembers on the hazards of using specific medications when performing their duties.	FRA developed an optional training module on the hazards of certain medications. This module is available free on FRA's Web site for rail industry use as-is or as a model for its own training.[5] FRA publicized the availability of the training module to FRA's railroad contacts, regional offices, inspectors, and other interested parties. FRA also asked the Departmental Office of Drug and Alcohol Policy and Compliance to announce the new module to its distribution network and to make the module available on its Web site. In addition, FRA conducted outreach at its own training sessions, industry conferences such as the Railroad Roundtable, and labor and trade association meetings. On October 11, 2018, FRA staff met with NTSB staff to discuss this recommendation. On February 25, 2019, FRA sent a letter to NTSB listing the agency's actions to address this recommendation and stating FRA would take no further action in response to this recommendation. In a letter dated September 16, 2019, NTSB asked FRA to revise and shorten its module and reclassified this recommendation as *Open—Acceptable Alternative Response*. FRA agrees with NTSB's suggestions and will provide a shortened version of the module.	Revise and disseminate training module.

[5] Available at https://railroads.dot.gov/elibrary/prescription-rx-and-over-counter-otc-medication-training-and-policy-toolkit.

Subpart I Open—Acceptable Alternative Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
18	1/13/2000	R-00-03	Establish and implement an educational program targeting train operating crewmembers that, at a minimum, ensures that all crewmembers are aware of the source of information described in safety recommendation R-00-02 regarding the hazards of using specific medications when performing their duties.	See response to R-00-02 (Exhibit B, item 17).	Revise and disseminate training module.
19	3/08/2013	R-13-05	Identify, and require railroads to use in locomotive cabs, technology-based solutions that detect the presence of signal-emitting portable electronic devices and that inform railroad management about the detected devices in real time.	See response to R-10-01 (Exhibit B, item 31).	Issue Locomotive Recording Devices final rule in 2022.

Subpart I Open—Acceptable Alternative Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
20	8/22/2014	R-14-15	Promulgate a regulation permitting a train to pass a red signal aspect protecting a moveable bridge that is similar to the criteria for allowing a train to cross a broken rail, as contained in 49 CFR 213.7(d), to ensure that the bridge has been inspected by a qualified employee before a train is authorized to proceed across the bridge.	On February 25, 2013, FRA issued Safety Advisory 2013-01, *Passing Stop Signals Protecting Movable Bridges*, to bring to the attention of movable bridge owners the importance of using adequate span locking and exercising caution when allowing a train to pass a stop signal protecting a movable bridge. This advisory emphasizes the importance of providing adequate training to individuals authorized to determine if a movable bridge is properly aligned and locked. On November 7, 2014, FRA published a final rule establishing minimum training standards for all safety-related railroad employees. 79 FR 66460. The purpose of the training standards rule (49 CFR part 243) is to ensure any person employed by a railroad or a contractor of a railroad as a safety-related employee is trained and qualified to comply with Federal railroad safety laws, regulations, and orders, and relevant railroad rules and procedures promulgated to implement those Federal railroad safety requirements. Under this final rule, railroads must submit their training plans to FRA for review.	Complete evaluation of training programs and qualifications for categories of safety-related railroad employees who are authorized to determine whether movable bridges are properly aligned and locked.

Subpart I Open—Initial Response Received

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
21	6/21/2019	R-19-13	Use your authority to compel all commuter and passenger railroads to meet the requirements in 49 CFR Part 238 without delay, such that in the event of a loss of power, adequate emergency lighting is available to allow passengers, crew members, and first responders to see and orient themselves, identify obstacles, safely move throughout the rail car, and evacuate safely.	*Open—Acceptable Alternative Response*. Commuter and intercity passenger railroads already comply with requirements to have and ensure proper functioning of emergency systems to facilitate emergency egress and rescue access. FRA's passenger train emergency systems II rulemaking strengthened these requirements and incorporated American Public Transportation Association (APTA) standards for emergency systems. Most passenger cars used in the United States have emergency lighting powered by batteries integrated in the cars with the specific lighting fixtures they support. As an older series, the Talgo Series 6 cars have emergency lighting powered by batteries that connect by cables to the cars' light fixtures. When cables were severed during the Amtrak 501 derailment, so too was the emergency lighting from its power source. FRA's requirements for passenger train emergency systems are complementary and include requirements for intercity passenger trains (e.g., the Talgo Series 6) to have auxiliary portable lighting and fixed emergency lighting as part of the railroad's emergency preparedness plan. FRA has sought to phase-in requirements for existing passenger cars where practical and enforces the requirements for emergency lighting systems applicable to existing passenger cars through the passenger train emergency systems II rulemaking.	The IIJA requires FRA to initiate rulemaking to require railroads providing intercity and commuter passenger service to implement periodic inspection to ensure that, in the event of a loss of power, there is adequate emergency lighting available for passengers, crew members, and first responders. The IIJA requires that the rulemaking be initiated within 1 year of its enactment. FRA is developing regulatory requirements to satisfy this mandate.

Subpart I Open—Initial Response Received

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
22	5/14/2020	R-20-05	Revise your oversight inspection process to focus on roadway worker activities, especially when roadway workers are using train approach warning for protection.	FRA disagrees with NTSB's conclusion that the probable cause of the June 10, 2017, accident was Long Island Rail Road's decision to use train approach warning (TAW) to protect roadway workers on active tracks. As NTSB acknowledges in its report, the roadway workers involved in the accident did not comply with regulations governing TAW. FRA has a comprehensive inspection, audit, and outreach program related to roadway worker protection, and it has proven to be effective. Nonetheless, FRA has taken several actions to strengthen its oversight of railroads' roadway worker protection, including: - Changing FRA's generic "RWP" activity code to eight specific codes to better monitor FRA's RWP program activities and adjust as necessary; - Conducting recurrency training for Track Division field staff specifically focused on RWP; - Implementing a policy of having all track inspectors conduct one unannounced RWP inspection per pay-period, as practical, to better monitor railroads' RWP activities; - Beginning the process of training all FRA inspectors, regardless of the technical discipline, to monitor railroads' RWP activities; and - Creating job-aids to provide to other discipline inspectors to help ensure FRA monitors RWP issues in a uniform manner.	Continue and expand FRA's focus on roadway workers, especially when using TAW. Broaden and strengthen FRA's inspection force through training and job-aids.

Subpart I Open—Initial Response Received

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
23	8/27/2020	R-20-11	Require new roadway maintenance machines to be equipped with operator presence controls to prevent unintended movement and protect workers on and around the machines.	On April 16, 2021, FRA sent a closure request to NTSB asserting that compliance with existing Occupational Safety and Health Administration (OSHA) lockout/tagout procedures is the safest and most practical way to ensure safety for workers on and around roadway maintenance machines. After further discussion with NTSB on October 5, 2021, FRA decided to reconsider its approach to this recommendation.	Consider how to implement this recommendation as well as any additional safety improvements for RMMs, potentially through RSAC.
24	10/19/2020	R-20-18	Review the software changes being developed by the Interoperable Train Control Application Committee regarding positive train control restricted Mode and amend Title 49 Code of Federal Regulations Part 236 to require railroads to revise their positive train control systems to implement engineering controls that will automatically limit the use of restricted Mode on main tracks.	In January 2021, FRA received a request for amendment (RFA) to an Interoperable Electronic Train Management System (I-ETMS) Mixed System Positive Train Control Safety Plan (PTCSP). This RFA relates to the I-ETMS Onboard Software Version 6.3.20.0, which includes changes to I-ETMS restricted mode. The changes include the addition of a set of warning prompts when the train is in restricted mode. If the warning prompts are not acknowledged within a specified period, I-ETMS will initiate enforcement braking. FRA approved this RFA on April 29, 2021. FRA believes this design change is a further mitigation to potential hazards when I-ETMS is in an operating state that does not provide full protection.	FRA will continue to monitor the effectiveness of the software.
25	12/8/2020	R-20-21	Develop and issue guidance for railroads to use in developing the risk reduction programs required to be submitted for approval by the Federal Railroad Administration.	FRA has drafted the guidance. As of December 31, 2021, the guidance is in FRA's internal review and clearance process.	Once the guidance has been approved, FRA will make the guidance public.

Subpart I Open—Initial Response Received

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
26	1/25/2021	R-20-28	Revise Title 49 Code of Federal Regulations Part 232 to require more frequent communication checks between a head-of-train device and an end-of-train device.	FRA concurs with the recommendation	Work with industry stakeholders, including NTSB, to evaluate what additional actions can be taken to reduce further the risks associated with the loss of communication between head-of-train and end-of-train devices.
27	1/25/2021	R-20-29	Require that the emergency brake signal transmission is repeated until received by the end-of-train device.	FRA concurs with the recommendation.	Work with industry stakeholders, including NTSB, and manufacturers of the devices, to evaluate what additional actions can be taken to reduce further the risks associated with this issue.

Subpart I Open—Await Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
28	5/20/2021	R-21-02	Require all railroads to revise training and increase oversight to ensure that operating crews properly use restricted speeds.	FRA concurs with the recommendation. The IIJA directs FRA to initiate audits of the training, qualification, and certification programs of locomotive engineers and conductors of railroad carriers. FRA will assess and determine whether the type and content of training provided to locomotive engineers and conductors are appropriate and adequate. Training for restricted speed, or the functional equivalent, will be one element for this audit.	FRA will continue to analyze quarterly and six-month operational testing data to determine proactive strategies to verify that testing of restricted speeds is done appropriately. Additionally, FRA will emphasize that railroads should utilize technology to review locomotive event recorder data and outward-facing locomotive camera recordings to verify compliance with restricted speed requirements.
29	9/30/2021	R-21-03	Modify CFR Part 214 to prohibit the use of train approach warning in controlled track territory during planned maintenance and inspection activities.	While FRA does not believe that train approach warning should be banned from controlled track territory, FRA agrees that it can be improved. FRA will present a task to the RSAC to re-examine 49 CFR part 214, Subpart C. If RSAC accepts the task, the group will consider recommendations for potential improvements to train approach warning.	Ask RSAC to vote on the task; assemble a working group; consider resulting RSAC recommendations.

Subpart I Open—Unacceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
30	6/07/2006	R-06-07	Require railroads to implement for all power-assisted switch machines—regardless of location—a formal commissioning procedure and a formal maintenance program that includes records of inspections, tests, maintenance, and repairs.	See response to R-12-27 (Exhibit B, item 41). The RSAC Dark Territory Working Group considered safety technologies, including power-assisted switch machines and switch point monitoring systems as a primary topic. The working group developed a draft document recommending the creation of individual railroad plans for the maintenance, inspection, and testing of certain safety devices, including power-assisted switch machines and switch point monitoring systems. However, technology implementation plans in the railroads' RRPs and SSPs required under RSIA section 103 might obviate the need for a rulemaking.	Evaluate need for this rulemaking, considering railroads' implementation of FRA's RRP and SSP

Subpart I Open—Unacceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
31	2/23/2010	R-10-01	Require the installation, in all controlling locomotive cabs and cab car operating compartments, of crash- and fire-protected inward- and outward-facing audio and image recorders capable of providing recordings to verify that train crew actions are in accordance with rules and procedures that are essential to safety as well as train operating conditions. The devices should have a minimum 12-hour continuous recording capability with recordings that are easily accessible for review, with appropriate limitations on public release, for the investigation of accidents or for use by management in carrying out efficiency testing and system-wide performance monitoring programs.	See responses to FAST Act section 11411 (Exhibit A, item 6) and R-10-02 and R-13-05 (Exhibit B, items 32 and 19). FRA issued an NPRM on July 24, 2019. The final rule is currently under development. NTSB stated the proposed rule is only partially responsive to this recommendation because the NPRM did not apply to freight railroads.	Issue final rule in 2022.

Subpart I Open—Unacceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
32	2/23/2010	R-10-02	Require that railroads regularly review and use in-cab audio and image recordings (with appropriate limitations on public release), in conjunction with other performance data, to verify that train crew actions are in accordance with rules and procedures that are essential to safety.	See response to R-10-01 (Exhibit B, item 31)	Issue final rule in 2022.
33	3/8/2013	R-13-07	Require railroads to implement initial and recurrent crew resource management (CRM) training for train crews.	FRA believes CRM training is best addressed by railroads under the SSP and RRP rules. FRA issued the RRP final rule on February 18, 2020, and a final rule amending the SSP rule on March 4, 2020. Also, FRA expects PTC system implementation to reduce certain human factor-caused accidents and might limit the need for and impact of a CRM training program for train crews.	Assist and encourage railroads to develop CRM training programs as part of their RRPs or SSPs.

Subpart I Open—Unacceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
34	8/14/2013	R-13-19	When you have made the determination in safety recommendation R-13-18 [closed 9/5/2018], require railroads to use a reliable, valid, and comparable field test procedure for assessing the color discrimination capabilities of employees in safety-sensitive positions.	FRA reviewed comments to the interim interpretation on best practices for designing vision field tests for locomotive engineers and conductors, published November 24, 2015, and has not yet issued a final interpretation. Currently, FRA is reviewing field test procedures and providing railroads with feedback when determining that the tests are not following best practices. Such vision field tests are voluntary, and FRA wants to continue encouraging railroads to use them when appropriate.	Issue final interpretation or initiate changes through a new rulemaking addressing the proposed certification of dispatchers, making parallel edits for engineers and conductors.
35	1/11/2018	R-17-33	Mandate remedial actions that railroads should take to avoid or identify mechanical defects that are identified by wheel impact load detectors	See response to R-17-32 (Exhibit B, item 13). While wheel impact load detectors are helpful in identifying defects, they are not sufficiently predictive to justify mandating remedial actions. If a wheel exhibits a high kip reading and a rim thickness of 1 inch or less, AAR rules amended in January 2016 authorize that wheel's removal. FRA has found this Interchange Rule to be adequate to remove high impact wheels from the fleet.	After further discussion with NTSB, FRA will work collaboratively with the railroad industry, including NTSB to determine best practices.

Subpart I Open—Unacceptable Response

Item	Issue Date	Rec No.	Open NTSB Recommendation	Actions Taken by FRA	Actions to Be Taken by FRA
36	5/14/2020	R-20-06	Define when the risks associated with using train approach warning are unacceptable and revise Title 49 Code of Federal Regulations 214.329 to prohibit the use of train approach warning when the defined risks are unacceptable.	After review of this accident, FRA finds that TAW, when implemented in accordance with Federal regulations, provides appropriate protection for roadway workers. If the roadway workers involved in this accident had followed TAW requirements, this accident would not have occurred. Nonetheless, FRA introduced an RSAC task proposal for the RWP working group that, if approved, will explore making TAW a more formalized process and utilize available technology.	FRA will use the RSAC process to evaluate potential improvements to TAW requirements.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
37	8/11/1998	I-98-01	Develop and implement a field test program for in-vehicle safety and advisory warning systems.	*Open—Acceptable Response*. FRA undertook several projects to test intelligent transportation systems to improve safety or mobility at highway-rail grade crossings and released the Vehicle Proximity Alert System. FRA partnered with FHWA and Volpe to demonstrate a rail crossing violation warning system using connected vehicles technologies. Based on a concept of operation developed by FRA, and using standardized connected vehicle hardware and communications, the system was to provide an in-vehicle warning to a driver approaching a grade crossing with active grade crossing warning devices to allow the driver to stop before entering the crossing. FRA contracted for development, field demonstration, and requirements verification testing of the technology, which was completed in June 2017. On September 1, 2017, FRA sent a letter to NTSB detailing its actions and asking NTSB to continue to classify this recommendation as *Open—Acceptable.* After sending this letter and FRA's further review of the resulting data, FRA concluded some tested technologies could be applied to active crossings, but the technology was not ripe for application to passive crossings. It will take several years for the requisite technology to be installed in enough motor vehicles to impact safety at grade crossings, and wayside technologies not yet developed or available would need to be deployed at passive crossings to effectively implement this recommendation. After further consideration of the test results, FRA will not take further actions on this recommendation. FRA will revisit when the technologies are mature. On December 17, 2019, FRA sent NTSB a letter asking to close this recommendation. FRA re-sent the letter to NTSB on December 1, 2020. On June 24, 2021, NTSB reclassified this recommendation as *Open—Unacceptable Response*.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
38	4/10/2008 Reiterated 7/3/2017	R-08-07	Revise the definition of *covered employee* under 49 CFR Part 219 for purposes of Congressionally mandated alcohol and controlled substances testing programs to encompass all employees and agents performing safety-sensitive functions, as described in 49 CFR 209.301 and 209.303.	*Open—Acceptable Response.* FRA published a final rule on June 10, 2016, that expanded the scope of drug and alcohol regulations to cover MOW employees as defined in the rule (49 CFR part 219). On February 2, 2022, FRA published a final rule adding employees who perform mechanical tests and inspections (MECH rule) on behalf of a railroad to the scope of part 219, in response to the *Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act* (SUPPORT Act). As explained in both the MOW rule and the MECH rule, FRA finds that expanding part 219 beyond these statutory mandates is not justified. Through post-accident toxicological (PAT) testing of all railroad employees killed in train accidents and incidents, FRA continues to monitor other railroad employee crafts. FRA will revisit the coverage issue for individuals who perform other 49 CFR 209.303 functions, if their rates of positive, post-mortem PAT results rise in the future. On February 19, 2019, FRA sent NTSB a letter asking to close this recommendation. On September 16, 2019, NTSB reclassified it as *Open—Acceptable Response*.
39	3/2/2012	R-12-03	Require that safety management systems and the associated key principles (including top-down ownership and policies, analysis of operational incidents and accidents, hazard identification and risk management, prevention and mitigation programs, and continuous evaluation and improvement programs) be incorporated into railroads' RRPs required by RSIA.	*Open—Acceptable Response.* See response to RSIA section 103 (Exhibit A, item 4). On January 12, 2021, FRA sent a letter to NTSB asking to close this recommendation based on issuance of the RRP and SSP final rules. On November 17, 2021, NTSB declined to do so until FRA had reviewed and found that all railroads' SSP and RRP plans meet the requirements of the applicable rule. FRA is actively reviewing the SSP and RRP plans for implementation.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
40	5/10/2012 Reiterated 1/24/2017	R-12-16	Require railroads to medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders.	*Open—Unacceptable Response*. See responses to R-16-44 and R-13-21 (Exhibit B, items 58 and 44). FRA is addressing railroad employees' medical fitness for duty issues sequentially based on NTSB accident investigations of railroad accidents. Once FRA has fully considered how to address obstructive sleep apnea (OSA), it will next consider strategies to address other medical conditions that are also contributing causes to accidents. On June 28, 2018, FRA sent NTSB a letter asking to close this recommendation. On September 5, 2018, and September 16, 2019, NTSB declined to close this recommendation.
41	5/24/2012	R-12-27	Require railroads to install, along main lines in non-signaled territory not equipped with PTC, appropriate technology that warns approaching trains of incorrectly lined main track switches with enough time to permit stopping.	*Open—Unacceptable Response*. See response to R-06-07 (Exhibit B, item 30). The RSAC Dark Territory Working Group considered safety technologies, including power-assisted switch machines and switch point monitoring systems, as a primary topic. The working group met four times to develop recommendations for standards, guidance, regulations, or orders governing the development, use, and implementation of rail safety technologies in non-signaled territory. The working group developed a draft document recommending the creation of individual railroad plans for the maintenance, inspection, and testing of certain safety devices, including power-assisted switch machines and switch point monitoring systems, currently in use in non-signaled territory. The Working Group's draft, however, was put on hold until FRA's Risk Reduction Program and System Safety Program rulemakings were completed with the expectation that upon publication and implementation of the rules, FRA would determine if the recommendations of the Working Group are sufficiently addressed. The railroad industry is now at beginning stages of implementing the RRP and SSP rules and upon completion of initial implementation of the rules, FRA will consider whether additional actions are necessary to address the intent of this recommendation. On February 19, 2019, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
42	1/28/2013	R-12-41	Require that passenger railcar doors be designed to prevent fire and smoke from traveling between railcars.	*Open—Unacceptable Response*. Both sliding and swinging doors interact closely with the surrounding carbody structure, at the hinge, track, jamb, pocket, and/or latch. Even minor distortion of that structure due to the forces of collision or derailment, or simply a change in the orientation of the door due to a car being significantly displaced from its upright position, could cause the door to fail to operate as intended. Thus, during an emergency, additional time and effort would be needed to operate the door, delaying egress and access through those doors. Adding weight or tighter seals to make the doors smoke and fire resistant could create a similar distortion and could cost lives in such an emergency. NTSB's recommendation does not address the need for a design that balances competing safety objectives and does not appear to consider the requirements of FRA's fire safety regulations for protecting car occupants from fire and smoke. On May 23, 2018, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.
43	8/14/2013	R-13-20	Require more frequent medical certification exams for employees in safety-sensitive positions who have chronic conditions with the potential to deteriorate sufficiently to impair safe job performance.	*Open—Unacceptable Response*. FRA is dedicated to addressing medical conditions identified as a safety risk by NTSB or FRA investigations. FRA will take regulatory action if necessary and encourages railroads to make medical issue concerns part of their RRPs or SSPs to address their most pressing medical risks. In addition, FRA believes that the Fatigue Risk Management final rule will address the spirit of this recommendation, and FRA will continue to work with industry stakeholders to develop cooperative studies and outreach as appropriate. FRA intends to take no other action on this recommendation.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
44	8/14/2013 Reiterated 1/24/2017	R-13-21	Develop medical certification regulations for employees in safety-sensitive positions that include, at a minimum: (1) a complete medical history that includes specific screening for sleep disorders, a review of current medications, and a thorough physical examination; (2) standardization of testing protocols across the industry; and (3) centralized oversight of certification decisions for employees who fail initial testing. Also, consider requiring that medical examinations be performed by those with specific training and certification in evaluating medication use and health issues related to occupational safety on railroads. [This recommendation supersedes safety recommendations R-02-24 through -26.]	*Open—Unacceptable Response*. See responses to R-16-44 and R-12-16 (Exhibit B, items 58 and 40). FRA is addressing railroad employees' medical fitness for duty issues sequentially based on NTSB accident investigations of railroad accidents and believes that the Fatigue Risk Management final rule will address the spirit of this recommendation. FRA intends to take no further action on this recommendation.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
45	8/14/2013	R-13-22	Require all information captured by any required recorder to also be recorded in another location remote from the lead locomotive(s), to minimize the likelihood of the information being unrecoverable as a result of an accident.	*Open—Unacceptable Response*. FRA considered this recommendation and determined that implementation is currently neither technologically or economically feasible (in part because of the limited availability of communications spectrum that would be necessary to implement the recommendation), and that the loss of event recorder data is a rare event that does not justify such a burden to mitigate such an unusual event. On May 23, 2018, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.
46	12/19/2013	R-13-38	Work with FHWA to (1) include guidance in the Manual on Uniform Traffic Control Devices (MUTCD) for the installation of advance warning devices, such as movement-activated blank-out signs, that specifically use the word *train* to indicate the preemption of highway traffic signals by an approaching train, and (2) amend the MUTCD to indicate that preemption confirmation lights, while not intended to provide guidance to the general public, would be useful in providing advance information on train movements to law enforcement and emergency responders.	*Open—Acceptable Response*. FRA assists FHWA with development of the MUTCD. Additionally, FRA staff participate as members (with FHWA) at meetings of the National Committee on Uniform Traffic Control Devices. FRA continues to support FHWA on this topic and others that improve safety. However, regulatory authority to approve or publish the MUTCD lies solely with FHWA. See 23 CFR 655.603. On May 23, 2018, FRA sent NTSB a letter stating FRA is unable to take further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
47	10/22/2014	R-14-48	Require equivalent levels of reporting for both public and private highway-rail grade crossings.	*Open—Unacceptable Response*. FRA published a final rule on January 6, 2015, that requires railroads to report new data elements to the U.S. Department of Transportation (DOT) National Highway-Rail Crossing Inventory (Inventory) for private highway-rail grade crossings. 80 FR 746. Railroads are required to submit information about previously unreported and new highway-rail and pathway crossings to the Inventory and to periodically update existing crossing data. In conjunction with the final rule, FRA revised the form for submitting data to the Inventory and the *Guide for Preparing U.S. DOT Crossing Inventory Forms* (Guide). The revised Guide directs railroads to submit data to the Inventory for private highway-rail grade crossings that railroads have not traditionally provided. The additional data includes, for example, current daily train counts for various types of train movements, maximum timetable speed over the crossing, typical speed range over the crossing, number and type(s) of track(s) through the crossing, and type of train detection for automatic warning devices, and event recorder and health monitoring. On May 23, 2018, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.
48	11/24/2014	R-14-69	When the proposed system safety program regulation is promulgated, develop, and implement a robust performance-based audit program to ensure that railroads are maintaining effective system safety programs.	*Open—Acceptable Response*. See response to RSIA section 103 (Exhibit A, item 4). The RRP final rule (published February 18, 2020) requires railroads to conduct annual internal assessments to gain detailed knowledge of the status of program implementation and the degree to which the program is effectively reducing risk. Following this internal assessment, railroads are required to develop improvement plans to address any deficiencies, and to provide an annual internal assessment improvement plan to FRA. FRA will also conduct, or cause to be conducted, external audits to assess implementation status and program effectiveness. In response to these external audits, railroads will be required to develop and implement improvement plans approved by FRA. Similarly, the SSP final rule describes how each passenger rail operation must conduct internal system safety program assessments, and how FRA will conduct external safety audits. 49 CFR §§ 270.303 and 270.305. FRA has a robust auditing program, and on January 12, 2021, asked NTSB to close this recommendation. On November 17, 2021, NTSB declined to do so, stating that FRA would first need to demonstrate that its audit program is effectively auditing railroads to ensure that they are maintaining an effective SSP and RRP.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
49	2/2/2015	R-15-01	Revise 49 CFR 238.213 to require the existing forward-end corner post strength requirements for the back-end corner posts of passenger railcars.	*Open—Unacceptable Response*. Train accidents involving a substantial load impacting the middle of a train, as in the May 17, 2013, Metro-North Railroad accident from which the recommendation arose, make up a very small percentage of accidents. Requiring passenger railroads to enhance every passenger car currently in operation consistent with this recommendation would not be cost beneficial, requiring more material, higher engineering costs, and higher production cost per car. On December 21, 2018, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.
50	2/2/2015	R-15-02	Revise 49 CFR Part 238 to incorporate a certificate of construction, similar to the one found at 49 CFR 179.5, and require that the certificate be furnished prior to the in-service date of the railcar.	*Open—Unacceptable Response*. FRA believes that the current compliance process is appropriate. The certification program established under 49 CFR part 179, *Specifications for Tank Cars*, does not involve an independent technical authority or a government regulatory program. Rather, the certification program is incorporated by reference and relies on a railroad industry association program. Per 49 CFR § 179.5, *Certificate of Construction*, the party assembling the completed car (i.e., the manufacturer) may supply the AAR with Form AAR 4-2, showing compliance. Currently, there is no such railroad industry association program for passenger rail equipment. Moreover, a certification program, such as the one referenced, would need to be robust enough to address all design variations. Thus, the current compliance process is more appropriate. A certification program of this magnitude would require a level of staffing and funding that is currently outside FRA's resources. On December 21, 2018, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation.
51	9/29/2015	R-15-35	Enhance [FRA] medical standards by identifying a list of medical conditions that disqualify employees for safety-sensitive positions because of the conditions' potential for negatively affecting rail safety.	*Open—Unacceptable Response*. FRA is addressing railroad employees' medical fitness for duty issues sequentially based on NTSB accident investigations of railroad accidents. FRA informed NTSB of its approach on March 23, 2016. On September 5, 2018, NTSB rejected FRA's approach and reclassified the recommendation as *Open—Unacceptable Response*. FRA intends to continue addressing medical fitness for duty issues individually as needed. FRA does not intend to issue a rule identifying specific medical conditions that disqualify employees from safety-sensitive service and is preparing a closure request to send to NTSB. FRA believes that the FRMP final rule will address the spirit of this recommendation.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
52	9/29/2015	R-15-36	Enhance your medical standards by identifying a list of medications whose use disqualifies employees for safety-sensitive positions because of the medications' potential for negatively affecting rail safety.	*Open—Unacceptable Response*. As FRA explained in its November 18, 2016, letter to NTSB, FRA believes a list of these medications is best maintained by the Food and Drug Administration (FDA). On February 19, 2019, FRA sent NTSB a letter stating FRA would take no further action on this recommendation and outlining FRA's efforts to address this recommendation in other ways. On September 16, 2019, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.
53	9/29/2015	R-15-37	Once disqualifying medical conditions and medications have been identified, develop specific criteria (such as standards for medical test results) that may allow employees who have been disqualified but have been determined by a subsequent, individualized assessment to pose no increased danger to rail safety to obtain a medical certification.	*Open—Unacceptable Response*. FRA is addressing railroad employees' medical fitness for duty issues sequentially based on NTSB accident investigations of railroad accidents. FRA informed NTSB of its approach on March 23, 2016. On September 5, 2018, NTSB rejected FRA's approach and reclassified the recommendation as *Open—Unacceptable Response*. FRA believes that the FRMP final rule will address the spirit of this recommendation and does not intend to develop specific criteria such as those NTSB recommended and is preparing a closure request to send to NTSB.
54	6/9/2016	R-16-32	Require railroads to install devices and develop procedures that will help crewmembers identify their current location and display their upcoming route in territories where positive train control will not be implemented.	*Open—Unacceptable Response*. On March 28, 2019, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. Federal requirements already cover this subject; the technology is not available and would be expensive to develop; there are few safety benefits to adding this technology; and it would be difficult to justify the requirement due to its cost. On June 21, 2019, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
55	6/9/2016	R-16-35	Conduct research to evaluate the causes of passenger injuries in passenger railcar derailments and overturns, and evaluate potential methods for mitigating those injuries, such as installing seat belts in railcars and securing potential projectiles.	*Open—Unacceptable Response*. On August 23, 2017, FRA sent NTSB a letter requesting reclassification of this recommendation as *Closed—Acceptable Action*. On June 21, 2019, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*. On September 27, 2019, FRA sent NTSB a letter noting that, after extensive evaluation of available mitigation methods for occupant protection, FRA concluded that focusing on passenger containment, interior attachment integrity, and secondary impact survivability is the most effective approach to prevent and mitigate passenger injuries in derailments and overturns. On September 30, 2019, NTSB reiterated this recommendation to FRA. The IIJA requires FRA to undertake a study on this topic. Not later than 2 years after enactment of the IIJA, FRA must provide a report of its findings.
56	6/9/2016	R-16-36	When the research specified in R-16-35 identifies safety improvements, use the findings to develop occupant protection standards for passenger railcars to mitigate passenger injuries likely to occur during derailments and overturns.	*Open—Unacceptable Response*. See response to R-16-35 (Exhibit B, item 5). On August 23, 2017, FRA sent NTSB a letter requesting reclassification of this recommendation as *Closed—Acceptable Action*. On June 21, 2019, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*. The IIJA requires FRA to undertake a study on this topic. Not later than 2 years after enactment of the IIJA, FRA must provide a report of its findings.
57	1/24/2017	R-16-43	Require freight railroads to use validated bio-mathematical fatigue models, similar to the models used by passenger railroads, to develop work schedules that do not pose an excessive risk of fatigue.	*Open—Unacceptable Response*. On March 30, 2017, FRA sent an initial response to NTSB indicating FRA believed many railroads will model the fatigue effects of their schedules using biomathematical models as part of their FRMPs and that FRA had awarded grants to railroads to develop FRMPs voluntarily, including biomathematical modeling. FRA withdrew its ANPRM on sleep apnea in August 2017. On January 18, 2018, NTSB rejected FRA's response and reclassified this recommendation as *Open—Unacceptable Response*. FRA believes that the FRMP final rule will address the spirit of this recommendation. (As of December 31, 2021, an FRMP final rule responding to all comments received was under development and the FRMP final rule will be published in 2022.)

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
58	1/24/2017	R-16-44	Develop and enforce medical standards that railroad employees in safety-sensitive positions diagnosed with sleep disorders must meet to be considered fit for duty.	*Open—Unacceptable Response*. See responses to R-12-16 and R-13-21 (Exhibit B, items 40 and 44) and 82 FR 37038-37039. On March 10, 2016, FRA and the Federal Motor Carrier Safety Administration (FMCSA) issued a joint ANPRM requesting data and information on the prevalence of moderate-to-severe OSA among individuals occupying safety-sensitive positions in highway and rail transportation, and its potential consequences for highway and rail transportation safety. 81 FR 12642. The ANPRM also requested information on potential costs and benefits from regulatory actions to address risks associated with motor carrier and rail transportation workers in safety-sensitive positions who have OSA. Approximately 700 comments were received in writing and at three public listening sessions. Most commenters, including employers and unions, asserted OSA regulation was unnecessary. On August 8, 2017, FRA and FMCSA withdrew the ANPRM after determining that OSA was best addressed through "current safety programs and FRA's rulemaking addressing fatigue risk management." On January 18, 2018, NTSB sent FRA a letter noting withdrawal of the ANPRM and repeating NTSB's belief that medical standards must be developed and enforced for railroad employees who have sleep disorders. NTSB reclassified this recommendation as *Open—Unacceptable Response*.
59	2/14/2018	R-18-01	Require intercity passenger and commuter railroads to implement technology to stop a train before reaching the end of tracks.	*Open—Unacceptable Response*. FRA believes a rulemaking would not be an efficient method of addressing this matter. FRA will evaluate alternative methodologies for effectively addressing such risks. In addition, FRA notes that any intercity passenger or commuter railroad that obtained a main line track exception for a passenger terminal and is not implementing a PTC system in that terminal must fully comply with the safety measures required under 49 CFR § 236.1019(b)(1) – (3).

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
60	9/5/2018	R-18-16	Review, and modify if necessary, your current inspection guidance regarding watchman/lookout equipment to verify that it requires railroads to provide the necessary equipment for a watchman/lookout to notify a roadway work group of approaching trains and that this accurately reflects the definition contained in 49 CFR 214.7	*Open—Unacceptable Response*. FRA disagrees with NTSB's findings on which this recommendation is based. The accident underlying this recommendation was caused by the watchman/lookout not devoting his full attention to detecting approaching trains and failing to warn the roadway workers. FRA reviewed its inspection guidance regarding watchman/lookout equipment and believes it accurately reflects regulatory requirements and the intent of 49 CFR § 214.329.
61	9/5/2018	R-18-17	Review railroads' on-track safety programs to determine if the necessary equipment is required and provided for a watchman/lookout to notify roadway work groups of approaching trains. If deficiencies are discovered, use enforcement options to encourage compliance.	*Open—Unacceptable Response*. See response to R-18-16 (Exhibit B, item 59). FRA reviewed roadway worker protection (RWP) plans for compliance with 49 CFR part 214, which ensures railroads list acceptable means for the watchman/lookout providing a warning. If a railroad's on-track safety program did not list the means of providing a warning, the railroad revised its program to do so during FRA's review.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
62	9/5/2018	R-18-18	Revise your guidance for inspectors regarding required watchman/lookout equipment and procedures, train all of your inspectors on the revised guidance, and audit subsequent inspections to verify adherence to the specifications outlined in 49 CFR Part 214.	*Open—Unacceptable Response*. See response to R-18-16 (Exhibit B, item 59). FRA's current guidance is consistent with the regulation and no revisions are necessary. Inspectors will continue to utilize appropriate enforcement tools when a railroad fails to adhere to the regulation. FRA trains its inspectors to interpret the rule correctly and to ensure that watchmen/lookouts have appropriate means of providing warnings as stipulated in the railroad's on-track safety manual.
63	9/5/2018	R-18-19	Modify the National Inspection Plan (NIP) to require periodic unannounced inspections for roadway worker protection regulation compliance.	*Open—Unacceptable Response*. See FRA's response to R-18-16 (Exhibit B, item 59). FRA does unannounced RWP inspections as part of routine oversight and enforcement activity and will continue to do so. FRA's Office of Railroad Safety no longer uses the NIP, and it would not have been the proper mechanism for targeting specific activities as suggested by NTSB. The NIP was derived from a compilation of accidents, defects, and violations issued over a defined time period. The NIP determined the relative percentage of time inspectors should spend on inspection activities by railroad. It did not dictate discipline-specific inspection activities.
64	10/9/2018	R-18-24	Issue a guidance document railroads can use to assess their on-track safety program to ensure it encompasses the role of signal and train control equipment, including redundant protection, such as supplemental shunting devices to protect roadway workers and their equipment.	*Open—Unacceptable Response*. FRA does not believe a Federal requirement mandating the use of signal and train control equipment (or any other specific mitigation measure) for redundant protection is warranted. FRA's RWP regulation at 49 CFR § 214.319(b) requires each railroad to determine how best to provide redundant signal protection for its operations, and it does not require railroads to implement a specific mitigation. Thus, issuing a guidance document, such as that recommended by NTSB, would be contrary to regulation. On April 30, 2019, FRA sent NTSB a letter stating FRA would take no further action on this recommendation. On September 16, 2019, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
65	11/27/2018	R-18-26	Provide additional training to all your track inspectors on regulatory track safety standards compliance and provide guidance of available enforcement options to obtain compliance with minimum track safety standards when defective conditions are not being properly remediated by railroads on all routes that carry high hazardous flammable materials.	*Open—Unacceptable Response*. FRA does not agree with NTSB's determination that the broken rail associated with the accident underlying this recommendation resulted from an inadequacy in FRA's enforcement of the Federal track safety standards. FRA trains its inspectors on both interpretation and application of the requirements through annual recurrence training, biennial discipline conferences, and ad hoc special seminars and presentations. Because FRA already provides extensive training on enforcement options, FRA sent NTSB an April 30, 2019, letter stating FRA is fully meeting the intent of this recommendation and will take no additional action. On September 16, 2019, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.
66	6/21/2019	R-19-08	Study the efficacy of how signs used in other modes of transportation may be effectively used in the railroad industry	*Open—Unacceptable Response*. In compliance with the FAST Act, Amtrak posted adequate, highly visible signage approaching the area where the Amtrak 501 derailment occurred, which gave rise to this recommendation. The crew failed to prioritize their attention and situational awareness to call out and identify the wayside signals and signs properly. Most Class I railroads already have signs for permanent speed restrictions, and FRA estimates that the cost of a new regulation regarding wayside warning signs would be $70 million with no benefits. On September 27, 2019, FRA sent a NTSB letter asking to close this recommendation. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
67	6/21/2019	R-19-09	Require railroads to periodically review and update their speed limit action plans to reflect any operational or territorial operating changes requiring material safety mitigations and to continually monitor the effectiveness of their speed limit action plan mitigations.	*Open—Acceptable Response*. In addressing R-19-09 and R-19-10, FRA found that (1) railroads already perform these activities as part of their safety operations; (2) PTC systems must reliably prevent overspeed derailments on the nearly 58,000 route miles subject to 49 U.S.C. § 20157; and (3) the Amtrak 501 derailment that prompted this recommendation was due to human error and failure of the operating crew to adhere to posted speed restrictions. Amtrak has updated its timetables and general orders to reflect the speed limits on the curve where the Amtrak 501 derailment occurred. The FAST Act did not authorize FRA to require railroads to update their plans to include curves beyond their original assessments. Further, as was the case with Amtrak 501, the railroad's plan explicitly applies to all operations with curves that meet the FAST Act criteria, not just those identified under the railroad's original assessment. In this case, Amtrak did not comply with its plan. On September 27, 2019, FRA sent NTSB a letter asking to close this recommendation. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Acceptable Response*. In 2021, the IIJA was enacted and includes a provision requiring railroads to annually review their plans to ensure the effectiveness of actions taken to enable warning and enforcement of maximum authorized speeds for passenger trains at locations identified at identified curves and to submit a revised plan before implementing any new significant operational or territorial operating change, including initiating new service.
68	6/21/2019	R-19-10	Require railroads to apply their existing speed limit action plan criteria for overspeed risk mitigation to all current and future projects in the planning, design, and construction phases, including projects where operations are provided under contract.	*Open—Acceptable Response*. See response to R-19-09 (Exhibit B, item 66). On September 27, 2019, FRA sent NTSB a letter asking to close this recommendation. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Acceptable Response*. In 2021, the IIJA was enacted and includes a provision requiring railroads to submit revised plans before implementing any new significant operational or territorial operating change, including initiating new service.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
69	6/21/2019	R-19-11	Prohibit the operation of passenger trains on new, refurbished, or updated territories unless positive train control is implemented.	*Open—Acceptable Response*. FRA's existing regulations specify: "No new intercity or commuter rail passenger service shall commence after December 31, 2020, until a PTC system certified under this subpart has been installed and made operative."[6] FRA notes that a PTC system is currently governing operations at the location where the Amtrak 501 derailment occurred, which was the basis for this safety recommendation from NTSB. On September 27, 2019, FRA sent NTSB a letter asking to close this recommendation because existing regulations sufficiently address the issue. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Acceptable Response*.
70	6/21/2019	R-19-12	Remove the grandfathering provision within 49 CFR 238.203(d) and require all railcars comply with the applicable current safety standards.	*Open—Unacceptable Response*. FRA granted special approval for the Talgo Series 6 trainsets involved in the Amtrak 501 derailment, based on their ability to demonstrate an equivalent level of safety and mitigation of unique risks pertaining to their operating environment. Notwithstanding the high-energy loading conditions, FRA's investigation of the derailment found that the end structure supporting the Talgo Series 6 equipment showed no evidence of premature failure and performed "exceptionally well for such a high-energy event." FRA found no occupant volume was lost due to end-frame compression and the Talgo Series 6 trainsets' end-frame compression strength was not a factor in this accident's passenger survivability. As a result, FRA does not believe it is appropriate to remove the grandfathering provision. Notwithstanding these facts, FRA notes that the Talgo Series 6 trainsets involved in the Amtrak 501 derailment have all been taken out of service and scrapped. On September 27, 2019, FRA sent NTSB a letter asking to close this recommendation. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response.*

[6] 49 CFR 236.1005(b)(6).

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
71	6/21/2019	R-19-14	Reevaluate existing seat secure mechanisms and their susceptibility to inadvertent rotation, to identify a means to prevent the failure of these devices to maintain seat securement.	*Open—Unacceptable Response*. Rotating seat locking mechanisms are, and have always been, considered subject to FRA's requirements for passenger equipment seat and interior fixture strength attachment under 49 CFR § 238.233. There is no evidence (from either NTSB's investigation or FRA's investigation of the accident underlying this recommendation) to suggest that the current 8g longitudinal, 4g vertical, and 4g lateral resistance requirements are inadequate when properly applied. FRA has worked with Amtrak to ensure that its crews follow procedures to ensure the proper securement of rotating seats. Accordingly, FRA will take no further action in response to this safety recommendation. On September 27, 2019, FRA sent NTSB a letter asking to close this recommendation. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.
72	6/21/2019	R-19-15	Conduct research into the effectiveness of occupant protection through compartmentalization for passengers whose size (including children) is not within the current range of anthropomorphic passenger sizes in FRA standards.	*Open—Unacceptable Response*. As part of FRA's passenger equipment safety research program, seat/occupant protection experiments were incorporated into full-scale rail car and train-to-train impact tests. Anthropomorphic test devices (ATD) were set up in various seating arrangements and in locations within the rail passenger car and locomotive compartments. Each experiment included different sized ATDs (5th-percentile female and 50th- and 95th-percentile males) to obtain data from the ATD and seat sensors that account for extremes in size and mass. These experiments did not demonstrate a need to change regulations as NTSB recommends. The main objective of compartmentalization for occupant protection is to contain passengers between rows of seats, so they do not travel distances associated with increasing secondary impact velocities under conditions such as in the Amtrak 501 derailment before they strike another part of the car's interior. Smaller, lighter passengers are less likely than larger, heavier passengers to deform the seat ahead of them and be thrust over the seatback. FRA has determined that compartmentalization is as effective for children as it is for the 5th-percentile female. Compartmentalization is also part of a larger occupant protection strategy that includes recessed or flush-mounted interior fittings and mitigating the consequences of interior surface impacts. Accordingly, FRA will take no further action in response to this safety recommendation. On September 27, 2019, FRA sent NTSB a letter asking to close this recommendation. On June 18, 2020, NTSB declined to close this recommendation and reclassified it as *Open—Unacceptable Response*.

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
73	3/24/2020	R-20-01	Work [with PHMSA] to develop maximum coupling speed thresholds and impact mass limits for hazardous materials railcars.	*Open—Unacceptable Response*. FRA and PHMSA agree that overspeed, high-energy coupling events can damage rail rolling stock, including tank cars. However, existing regulations and industry standards mitigate risks to equipment from such events through car handling and coupling speed requirements. Thus, FRA and PHMSA believe the intent of this recommendation has been addressed. On November 12, 2020, FRA and PHMSA sent NTSB a letter asking to close this recommendation. On August 20, 2021, NTSB declined to do so, instead reclassifying the recommendation as *Open—Unacceptable Response.*
74	3/24/2020	R-20-02	Require that tank cars involved in high-energy coupling-force events undergo a structural integrity inspection by a qualified technician before returning to service.	*Open—Unacceptable Response*. This recommendation was also issued to PHMSA. FRA and PHMSA believe the existing regulations satisfy the intent of this recommendation. Currently, 49 CFR § 215.121(b) requires railroads to ensure freight car center sills, including stub sills, are safe for rail transportation. This requirement helps address the railroad's responsibility to ensure rail worthiness as noted in this recommendation. Additionally, industry interchange standards have been established to have tank car stub sills inspected by railroad operating and mechanical personnel as part of their routine inspections or maintenance events. AAR Field Manual Rule 81 E specifically requires railroads to home-shop a tank car to a qualified tank car facility for stub sill inspection and to notify the car owner, if the car has been damaged to a certain extent. On November 12, 2020, FRA and PHMSA sent NTSB a letter asking to close this recommendation. On August 20, 2021, NTSB declined to do so, instead reclassifying the recommendation as *Open—Unacceptable Response.*

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
75	3/24/2020	R-20-03	Develop methods to identify tank cars that have sustained overspeed and high-energy coupling force events.	*Open—Acceptable Response*. This recommendation was also issued to PHMSA. FRA and PHMSA believe existing regulations and industry standards result in a safe transportation system when implemented correctly by tank car owners. Current regulations and industry standards have established railroad inspection and corrective action processes to identify and mitigate potential stub sill issues resulting from potential overspeed and high-energy impact events. Current inspection processes work to identify potential overspeed and high-energy impact events when adhered to by rail carriers and car owners. Additional devices (e.g., accelerometers, strain gages) exist to identify tank cars that have been involved in an overspeed and high-energy impact event; however, their survivability in the rail environment is problematic. On November 12, 2020, FRA and PHMSA sent NTSB a letter asking to close this recommendation. On August 20, 2021, NTSB declined to do so, instead noting that FRA and PHMSA are conducting research, and indicating that NTSB would like to review the results. NTSB reclassified this recommendation as *Open—Acceptable Response.*
76	3/24/2020	R-20-04	After the successful development of methods to identify tank cars that have sustained overspeed and high-energy coupling force events, require that rail carriers have monitoring processes in place to promptly remove damaged tank cars from hazardous materials service.	*Open—Unacceptable Response*. This recommendation was also issued to PHMSA. FRA and PHMSA share NTSB's interest in reducing or eliminating damage to tank car stub sills from overspeed, high-energy, coupling force events. Current regulations, industry standards, and stub sill designs provide adequate safety measures for preventing or detecting damage to stub sills due to overspeed and high-energy coupling force events. FRA and PHMSA will continue to work together to ensure railroads address hazardous materials operating practices relevant to coupling speed and car handling. Additionally, FRA and PHMSA will continue to work with tank car owners and facilities to ensure their nondestructive inspection procedures conform to requirements to inspect high-stress areas. On November 12, 2020, FRA and PHMSA sent NTSB a letter asking to close this recommendation. On August 20, 2021, NTSB declined to do so, instead reclassifying the recommendation as *Open—Unacceptable Response.*

Subpart II Open Rail Safety Recommendations FRA Will Not Further Address

Item	Issue Date	Rec. No.	Open NTSB Recommendation	NTSB Classification and Actions Taken by FRA
77	5/14/2020	R-20-07	Promulgate scientifically based hours of service requirements for roadway workers.	*Open—Initial Response Received.* FRA does not have authority to carry out this recommendation because roadway workers are not covered employees under the hours of service law (49 U.S.C. § 21101). The statute does not authorize FRA to prescribe hours of service requirements for employees performing functions not defined in the statute. On April 16, 2021, FRA sent a closure request to NTSB.
78	5/20/2021	R-21-01	Require all railroads to establish working limits that prevent trains or other on-track machinery from entering zones where employees, including those who work on or from maintenance of-way equipment or on trains engaged in maintenance-of-way tasks, are working.	*Open—Await Response*. NTSB has incorrectly interpreted FRA's regulations. Section 214.301(c) states: *This subpart prescribes safety standards related to the movement of roadway maintenance machines where such movements affect the safety of roadway workers. Except as provided for in § 214.320,* ***this subpart does not otherwise affect movements of roadway maintenance machines*** *that are conducted under the authority of a train dispatcher, a control operator, or the operating rules of the railroad.* (Emphasis added) The underlined portion of this rule permits "movements" of roadway maintenance machines (including work trains) under the operating rules of the railroad (as in this case of the accident underlying this recommendation) without requiring on-track safety. The protection in these cases is provided by the operating rules themselves, which is consistent with FRA's historical interpretation of § 214.301(c). Section 214.301(c) only applies when the roadway maintenance machine or work train is traveling and does not apply when any work is conducted. When work is being performed, such as unloading rail, on-track safety must be established. Thus, FRA's regulations already require on-track safety where employees are working, including those working on or from maintenance-of-way equipment or trains. The use of signal indication and restricted speed is not a form of on-track safety and would not satisfy this requirement. FRA is drafting a closure request to send to NTSB.