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DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

[Docket No. FTA-2015-0017]

Z RIN 2132-ZA04

National Public Transportation Safety Plan

AGENCY: Federal Transit Administration (FTA), DOT.

ACTION: Notice of availability and response to comments.

SUMMARY: The Federal Transit Administration has placed in the docket and on its Web site, the final National Public Transportation Safety Plan that establishes performance measures to improve the safety of public transportation systems that receive FTA Federal financial assistance. Transit agencies will set performance targets based on the measures in order to monitor and assess the safety performance of their public transportation systems.

FOR FURTHER INFORMATION CONTACT: For program matters, James Bartell, Office of Transit Safety and Oversight, (202) 366-4050 or James.Bartell@dot.gov. For legal matters, Candace Key, Office of Chief Counsel, (202) 366-4011 or Candace.Key@dot.gov.

SUPPLEMENTARY INFORMATION:

Availability of Final Plan

This notice provides a summary of the final changes to the National Public Transportation Safety Plan and responses to comments. The final Plan itself is not included in this notice; instead, an electronic version is available on FTA's Web site, at www.transit.dot.gov, and in the docket, at www.regulations.gov. Paper copies of the final

Plan may be obtained by contacting FTA's Administrative Services Help Desk, at (202) 366-4865.

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I. Background

Congress first directed FTA to create and implement a National Public Transportation Safety Plan (National Safety Plan) under the Moving Ahead for Progress in the 21st Century (MAP-21) Act, which authorized a new Public Transportation Safety Program (Safety Program) at 49 U.S.C. 5329. Pub. L. 112-141 (2012). The Safety Program was reauthorized by the Fixing America's Surface Transportation (FAST) Act. Pub. L. 114-94 (December 4, 2015). On October 3, 2013, FTA introduced the transit industry to fundamental changes to the Federal transit program authorized by MAP-21 with a consolidated advance notice of proposed rulemaking (ANPRM). [78 FR 61251](#). FTA issued the consolidated ANPRM to provide the public with an understanding of FTA's proposed approach to implementing the requirements for transit asset management and safety.

In the ANPRM, FTA sought specific comment on the statutorily required components of the National Safety Plan. Pursuant to 49 U.S.C. 5329(b) a National Safety Plan must include: (1) safety performance criteria for all modes of public transportation; (2) the definition of the term "state of good repair" established under a rulemaking to implement a National Transit Asset Management System pursuant to 49 U.S.C. 5326(b); (3) minimum safety performance standards for public transportation vehicles used in

revenue operations that are not otherwise regulated by any other Federal agency, and that, to the extent practicable, take into account relevant recommendations of the National Transportation Safety Board and other industry best practices and standards; (4) minimum safety standards to ensure the safe operation of public transportation systems that are not related to vehicle performance standards;¹ and (5) a safety certification training program.

On February 5, 2016, FTA published a *Federal Register* notice (81 FR 6372) seeking comment on a proposed National Safety Plan. FTA conducted a number of public outreach sessions and a webinar series related to the proposed National Safety Plan and the Public Transportation Agency Safety Plan notice of proposed rulemaking (Agency Safety Plan rule) that also was published in the *Federal Register* on February 5, 2016. 81 FR 6343. Specifically, on February 12, 2016, FTA conducted public outreach for tribes and hosted a Tribal Technical Assistance Workshop wherein FTA presented its proposed National Safety Plan and Agency Safety Plan rule and responded to technical questions from tribes. FTA subsequently delivered the same presentation during a webinar series open to the public on February 24, March 1, March 2, and March 3, 2016. On March 7, 2016, FTA delivered the same presentation at an outreach session hosted by the National Rural Transit Assistance Program, which also was open to the public.

During each of these public outreach sessions and the public webinar series, FTA received and responded to numerous technical questions regarding the proposed Plan and NPRM. FTA recorded the presentations, including the question and answer sessions, and made available the following documents on the public docket for this Notice: (1) FTA's

¹ The requirement for operational standards was added by the FAST Act. However, the ANPRM did include a discussion on operational standards.

PowerPoint Presentation from the public outreach sessions and public webinar series; (2) a written transcript of FTA's public webinar of March 1, 2016; (3) a consolidated list of Questions and Answers from the public outreach sessions and public webinar; and (4) the results of polling questions from FTA's public outreach sessions. FTA also uploaded an audiovisual recording of its webinar from March 1, 2016. The video is available at the following link: <https://www.youtube.com/watch?v=FBj5HRatwGA&feature=youtu.be>.

The National Safety Plan is FTA's primary tool for communicating with the transit industry about its safety performance. FTA expects to update the National Safety Plan, from time to time, in response to trends in risk management in the transit industry, emerging technologies, best practices, findings from research, and other industry developments. FTA will issue substantive revisions to any future iterations of the National Safety Plan through a public notice-and-comment process.

The National Safety Plan is based on the principles and methods of Safety Management Systems (SMS): a formal, top-down, data-driven organization-wide approach to managing safety risks and ensuring the effectiveness of a public transportation agency's safety risk mitigations. On August 11, 2016, FTA published a final rule for the Public Transportation Safety Program that formally adopted SMS as the basis for FTA's development and implementation of the Safety Program. 81 FR 53046.

II. Summary of Public Comments and FTA's Responses

The public comment period for the proposed National Safety Plan closed on April 5, 2016. FTA received comment submissions from 119 entities, including States, transit agencies, trade associations, and individuals. FTA reviewed all of the comments and took them into consideration when developing today's final National Safety Plan.

Some comments received were outside of the scope of the proposed National Safety Plan. For example, FTA received a number of comments related to the definitions of “injury” and “serious injury.” FTA defined “injury” in the proposed National Safety Plan to provide clarity regarding the performance measure for injuries. In this Notice FTA responds to comments received regarding the definition of “injury” to the extent it relates to the National Safety Plan, but does not respond to comments related to reporting thresholds for certain injuries under the final State Safety Oversight rule at 49 CFR part 674.

Similarly, FTA received several comments related to the definition of the term “state of good repair,” a term FTA was required to define in a rulemaking for transit asset management pursuant to 49 U.S.C. 5326. On July 26, 2016, FTA issued a final rule for Transit Asset Management wherein FTA defines the term “state of good repair,” and FTA has adopted that definition in the final National Safety Plan. See the preamble of the Transit Asset Management final rule for FTA’s responses to comments received related to the proposed definition of “state of good repair” (<https://www.gpo.gov/fdsys/pkg/FR-2016-07-26/pdf/2016-16883.pdf>).

Relatedly, a number of commenters noted inconsistencies with certain definitions found throughout FTA’s several safety rulemakings. In response, FTA has aligned the definitions in the final National Safety Plan with other safety rulemakings and the Transit Asset Management final rule to ensure consistency.

FTA made a number of clarifying, organizational, and substantive revisions to the final National Safety Plan which are discussed below in the summary of public comments

and FTA's responses. Comments and responses are subdivided by their corresponding sections of the proposed National Safety Plan and subject matter.

A. Chapter I: Introduction

COMMENTS:

General

A number of commenters provided general support for the proposed National Safety Plan. Of these commenters, several broadly supported efforts by FTA to improve transportation safety. Multiple commenters stated that while they support FTA's efforts to develop a safety plan, they would prefer that FTA not impose significant regulatory and implementation burdens on States and others under an "already extremely safe public transportation system."

SMS

Several commenters supported FTA's proposal to incorporate SMS into a National Safety Plan, however, a few did not support FTA's application of SMS as a mandated approach to safety, especially for that portion of the nation's transit network that is delivered by State DOT subrecipients.

A couple of commenters stated that encouraging agencies to compare and contrast safety data results with other agencies when creating their safety plans runs contrary to the premise of SMS, where agencies are encouraged to improve their individual performance without regard to others.

Two commenters recommended that the National Safety Plan be consistent with Military Standard 882.

Workforce Development and Training

An individual commenter while commenting that the National Safety Plan is a rehash of 49 CFR part 659, questioned how FTA will handle and address workforce development issues stemming from the Agency Safety Plan rule and the National Safety Plan.

Multiple commenters requested that FTA issue technical assistance tools and non-binding guidance with templates to State agencies and transit operators to help agencies create a safety plan in line with the National Safety Plan.

Figures and Tables

Several commenters stated that the figures and tables in the National Safety Plan are not well labeled, specifically indicating that Table 5-1, as referenced in the text, does not exist.

Updates to the National Safety Plan

Several commenters provided suggestions on the frequency of updates to the National Safety Plan. One commenter stated that the National Safety Plan must be continually updated to reflect trends in risk management and best practices, and should be updated no less than once every two years. One commenter stated that future National Safety Plan updates should be accomplished through additional and periodic guidance regarding the minimum mandatory standards created in the rulemaking process. An additional commenter requested more information from FTA concerning the frequency of anticipated National Safety Plan updates and what the expectations, process, and timeline will be for transit agencies to respond or adapt their Public Transportation Agency Safety Plans' accordingly.

Two commenters requested that FTA clarify whether or not the National Safety Plan will ultimately be turned into a regulation.

Public Transportation Safety Certification Training Program

Several commenters requested more information about the Safety Certification Training Program. One commenter indicated that the National Safety Plan references the training program, but does not explain the program's details.

Reporting Systems

One commenter stated that the National Safety Plan could be improved by implementing an employee safety reporting system that implements confidential close call reporting. This commenter also suggested that FTA include close call reporting in the list of SMS performance measures so that FTA could track and analyze close call events.

FTA'S RESPONSE:

General

FTA appreciates those comments in support of the National Safety Plan. Although transit is a relatively safe mode of travel, the statistical reality is that as transit ridership increases, data indicates that the total number of fatalities and serious accidents likely will also increase. FTA does not intend to adopt a prescriptive or burdensome approach to improving transit safety. Instead, FTA has adopted the principles and methods of Safety Management Systems (SMS) because SMS is both scalable and flexible and can accommodate the diversity of modes, expertise, and resources that exist within the transit industry.

SMS

For the last three decades the public transportation industry has implemented plans and programs based on the “system safety” principles outlined in the Military Standard 882 series (Standard Practice for System Safety, <http://www.system-safety.org/Documents/MIL-STD-882E.pdf> [external link]). This approach focuses on the application of engineering and management principles, criteria, and techniques to achieve an acceptable level of safety throughout all phases of a system lifecycle.

FTA has adopted SMS as the basis for the initiatives FTA will undertake to improve the safety of public transportation because it is both scalable and flexible. SMS is a collaborative approach that will help management and labor work together to build on the industry’s existing safety foundation to better control risk, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more accurately. SMS empowers transit operators to assess their own safety risks and prioritize the application of resources to those risks, which in turn supports a cost-effective allocation of resources.

The main difference between the system safety approach and SMS is that, because of its engineering roots, system safety focuses mostly on the safety implications of technical aspects and components of the system under consideration, somewhat at the expense of the human component. The SMS approach builds on the transit industry’s experience with system safety by bringing management processes and organizational culture more squarely into the system safety engineering and hazard management framework. By tackling these "softer" management and human factors issues, SMS supplements system safety’s more rigorous engineering processes.

FTA disagrees that the notion of benchmarking an individual agency's performance against the performance of another agency is inconsistent with SMS. The methods and principles of SMS do encourage agencies to improve their individual performance. However, effective implementation of SMS is dependent on the collection and analysis of available data, which can include data from other agencies. FTA has provided detailed responses to comments related to implementation of SMS at the transit agency level in the preamble to the final rule for Public Transportation Agency Safety Plans.

Workforce Development and Training

Although the National Safety Plan does not directly impose any workforce development burdens on recipients, FTA is continuing to develop training, guidance, and other resources to enhance the safety competencies of transit employees. For example, FTA may provide funding through its technical assistance program (49 U.S.C. 5314) to address public transportation workforce needs through research, outreach, training and the implementation of a frontline workforce grant program, and conduct training and educational programs in support of the public transportation industry. In addition, FTA is currently initiating a project to develop guidance that a transit agency could use to help it set up and operate an effective employee reporting system.

FTA will incorporate guidance, technical assistance, and other tools into the Plan as they become available. FTA will also make resources available on the safety page of its website at <https://www.transit.dot.gov/regulations-and-guidance/safety/transit-safety-oversight-tso>. FTA encourages transit providers and sponsors to visit the page regularly to access the most up-to-date resources.

Figures and Tables

FTA has revised the tables used in today's final National Safety Plan for clarity.

Updates to the National Safety Plan

FTA intends for the National Safety Plan to serve as both the primary tool for FTA to communicate with the transit industry about its safety performance, and as a repository of guidance, best practices, technical assistance, tools and other information. FTA believes that a flexible and time sensitive approach to implementing updates to the National Safety Plan is the most effective way to disseminate information. Therefore, FTA plans to propose substantive updates to the National Safety Plan, such as new performance measures, through a public notice and comment process as needed, rather than by regulation. However, components of the Plan, such as the Safety Certification Training Program and standards, will be implemented through regulation.

Public Transportation Safety Certification Training Program

Although the Public Transportation Safety Certification Training Program is a statutory component of the National Safety Plan, FTA must establish the requirements of the Training Program through rulemaking. FTA anticipates publishing a final rule for the Safety Certification Training Program later this year. Until FTA publishes a final rule, State personnel who conduct safety audits and examinations of rail transit systems and for rail transit agency personnel who are directly responsible for safety must participate in the Interim Program. Bus operators may participate in the program on a voluntary basis. For more information on FTA's Training Program, please visit <https://safety.fta.dot.gov/login>.

Reporting Systems

FTA is currently conducting research on the design, demonstration, evaluation, and implementation of employee reporting systems at transit agencies. As a product of this research, FTA intends to issue guidance to the transit industry on how to set up and operate effective employee reporting systems.

In the future, FTA will consider adding close calls to the list of performance measures.

B. Definitions

COMMENTS:

General

One commenter noted that the National Safety Plan's performance measures do not match the National Transit Database (NTD) definitions and also stated that the term "system reliability" is not currently defined in the NTD glossary. This commenter also asserted that the definition of "passenger" in the National Safety Plan does not match the NTD.

Another commenter stated that the National Safety Plan needs clearer definitions so that consistent performance measures can be created across agencies.

FTA'S RESPONSE:

There likely will be instances where the definitions of terms in FTA's rules or the National Safety Plan may differ from the definitions of those terms in the NTD. Where necessary, FTA will update the NTD glossary to align with the safety rules and National Safety Plan. However, to the extent that a definition in a safety rule differs from a definition in the NTD glossary, the regulatory definition will apply to the particular statutory requirement under the Safety Program. FTA has made sure to align the

definitions in this first final National Safety Plan with definitions in the final rules for safety and transit asset management. As the Safety Program matures, FTA will standardize other definitions to ensure consistent collection, analysis and reporting of safety information.

Fatalities

A few commenters noted that the definition of the term “fatalities” does not match the definition used in the NTD glossary.

FTA'S RESPONSE:

FTA did not include a definition of "fatality" in the proposed National Safety Plan. FTA did include a proposed performance measure for fatalities which was expressed as the total number of fatalities per unlinked passenger trips by mode. FTA's responses to comments on the fatality measure follow the summary of comments on the measure in Section C, below.

Injury and Serious Injury

A few commenters noted that the definition of “injuries” was included in the National Safety Plan glossary, but the definition of “serious injury” is not.

FTA'S RESPONSE:

Neither the definition of “injury” nor “serious injury” was included in the proposed National Safety Plan glossary. However, FTA has moved the definition of "serious injury" from the footnote on page 41 of the proposed National Safety Plan to the glossary at Appendix A of the final Plan.

Safety Events

The proposed National Safety Plan defines safety events as “the collection of reported events that occur during the operation of public transportation and performance of regular supervisory maintenance activities.” One commenter questioned whether the term “operation” refers to revenue service events only, or whether it also includes non-revenue service. The commenter stated that this difference could change current reporting thresholds. A few commenters stated that the definition of “safety events” does not match the definition in the NTD glossary.

FTA'S RESPONSE:

In the final National Safety Plan, FTA clarifies that the definition of "event" includes reported events that occur during both revenue and non-revenue operations. Contrary to comments received, the definition of “safety event” is not included in the NTD glossary. However, the proposed definition of "event" aligns with the definition of that term in the SSO final rule and the in the NTD safety and security reporting module. See Docket FTA-2014-0009 (January 2015).

Requests for New Definitions

A few commenters requested that FTA clarify the definitions of “transit provider.” Other commenters requested that FTA define “unlinked passenger trips” and “fires.”

FTA'S RESPONSE:

In response to comments, unlinked passenger trips are the number of passengers boarding the public transportation vehicles; passenger miles are the cumulative sum of the distances ridden by each passenger. However, FTA has removed this definition from

the final National Safety Plan because it has revised the denominator for several performance measures, as discussed below.

FTA does not believe that it needs to define “transit provider” in the National Safety Plan. The Plan applies to recipients of chapter 53 funds that provide public transportation.

FTA does not agree that it should define the term “fires.” Terms such as “fires” that are not defined in the Plan or by statute or regulation will be interpreted in accordance with the definition set forth in dictionaries of common usage.

B. Chapter II-SMS Framework

COMMENT:

SMS Components and Implementation Phases

Multiple commenters addressed the Safety Management Policy component of SMS. One commenter suggested that FTA’s Safety Management Policy lacked sufficient detail and encouraged FTA to establish minimum hazard criteria for all hazard management programs across all transit agencies to promote conformance. This commenter suggested that allowing each transit agency to establish its preferred method for hazard analysis will lead to varying methodologies, create confusion, and limit the available safety data for analyzing aggregate trends for the nation.

One commenter recommended that safety management policies promote open communication to all agency individuals, not just those identified as “relevant” to specific roles and responsibilities related to the SMS.

One commenter expressed concern about the “management of change” criteria in the National Safety Plan, recommending that FTA include additional guidance in the

National Safety Plan concerning transit agency documentation of operation/infrastructure changes, the establishment of safety modification review bodies, the use of past performance when describing future criteria, the use of field monitoring to ensure the implementation, effectiveness, and enforcement of new mitigations, and the use of multi-tiered risk management processes. This commenter also requested expanded guidance for the “continuous improvement” section of the National Safety Plan, including exploration of the link between safety performance monitoring and continuous improvement.

One commenter applauded FTA for developing strong risk management policies, but recommended that FTA revisit and expand the hazard management program. This commenter stated that risk management must be done effectively, noting that there have been multiple instances over the past 11 years in which public transportation accidents have occurred that could have been prevented had the required Hazard Management Plan and risk assessment been effective.

One commenter recommended that FTA include language in the National Safety Plan specifying that user documentation of a system’s operation, processes, policies, procedures, infrastructure, vehicles and training, as well as maintaining records of previous configurations, will assist in the process of continued system hazard identification. This commenter also suggested FTA add the term “safety risk” to the list of performance criterion in the SMS.

One commenter noted its appreciation for FTA’s recognition of the need for employee involvement in the promotion of system safety, but encouraged FTA to emphasize the importance of motivation, behavior, and attitude when promoting safety. The commenter stated that a poor safety culture in transportation industries can decrease

program effectiveness, and that written SMS plans will realize positive outcomes only by engaging employees in a culture of safety.

Several commenters addressed the phased-in approach implementation policy of the SMS. One requested that FTA define and provide the relevant requirements and guidance materials for the list of tasks/expectations that a transportation agency “should have finished” at the completion of Phase 3 of SMS implementation. This commenter indicated that the National Safety Plan references requirements and guidance material that is not included in the National Safety Plan and requested the documentation prior to the National Safety Plan becoming effective.

Two commenters recommended that the National Safety Plan clarify that the phased-in approach is voluntary and that many of the subcomponents of the proposed SMS framework may already be included in current safety plans.

One commenter requested that FTA provide additional guidance on what type of changes require review and what type of oversight is needed during Phase 3. Two commenters stated that FTA should fully define and differentiate among the phrases “safety performance criteria,” “safety performance measures,” and “safety performance indicator” as the proposed National Safety Plan interchanges the terms.

One commenter indicated that Chapter 2 of the National Safety Plan is a verbatim copy of the FTA SMS Framework issued in August, 2015. This commenter recommended that FTA use the National Safety Plan as an opportunity to expand on the 2015 guidance to better help agencies develop SMS.

Fatigue Management

One commenter recommended that FTA include hour-of-service limitations or fitness-for-duty qualifications to the SMS and National Safety Plan to highlight the importance of fatigue management and ensure that it is adequately addressed in the National Safety Plan.

FTA'S RESPONSE:

Readers should please be aware that the SMS Framework in the final National Safety Plan is not binding. The purpose of the SMS framework is to provide transit agencies with a brief overview of key SMS concepts, attributes of an effective SMS, FTA's adopted SMS components and sub-components, and SMS development phases and sample tasks. FTA has refined its approach to the development of SMS guidance. FTA is currently working to develop more comprehensive, scalable SMS implementation guidance and will take comments received in to consideration during this process.

This summer, FTA initiated the SMS Implementation Pilot Program (SMS Pilot Program) so that FTA and participating transit agencies can work together to move SMS implementation forward. Through the SMS Pilot Program, FTA is partnering with transit agencies to assist them in transitioning to an SMS approach to managing safety. FTA provides technical assistance to transit agencies on developing and operating an SMS approach, while transit agencies provide opportunities for FTA to test the effectiveness of SMS tools in a diverse set of circumstances. The program is critical to helping FTA identify worthwhile and practical SMS implementation activities and to develop insights on how best to support the industry-wide transition to SMS.

Transit agencies not involved in the pilot program will benefit as well. FTA will apply lessons learned and best practices identified to develop guidance materials and

technical assistance for the entire public transportation industry. Accordingly, in the final National Safety Plan, FTA has removed portions of the SMS Framework that provided guidance on implementation. FTA has retained portions of the SMS Framework that outline and describe the four pillars of SMS and revised some language to align with the requirements of the Public Transportation Agency Safety Plan final rule. As FTA refines its guidance materials it will take into consideration the issues and suggestions raised by commenters on the SMS Framework.

Fatigue Management

In October 2014, FTA's Acting Administrator tasked the Transit Advisory Committee for Safety (TRACS) with developing recommendations for FTA on the elements that should comprise a SMS approach to a fatigue management program. On July, 30, 2015, TRACS issued a report-*Establishing a Fatigue Management Program for the Bus and Rail Transit Industry*-which recommend components of a successful fatigue management program, including hours of service (HOS), shift scheduling, fatigue prevention and awareness training, fitness-for-duty medical evaluations and screenings, work and vehicle environment design, safety culture, incident investigation, and data collection.² FTA is currently reviewing the TRACS recommendations. In the future, FTA may issue guidance or regulations on operator fitness for duty, which could address issues such as hours of service and fatigue management.

C. Chapter II-Performance Management

The reader should note that throughout the proposed National Safety Plan, and final National Safety Plan, FTA uses the term "performance measure" interchangeably

² The TRACS Report is available at [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/TRACS_Fatigue_Report_14-02_Final_\(2\).pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/TRACS_Fatigue_Report_14-02_Final_(2).pdf).

with "performance criteria," which it proposed to define as “categories of measures indicating the level of safe performance within a transit agency.” Although the language at 49 U.S.C. 5329(b) uses the term “performance criteria,” other parts of FTA’s authorizing statute, such as the Transit Asset Management provisions of 49 U.S.C. 5326, use the term “performance measures.” FTA believes that Congress intended the terms “performance criteria” and “performance measures” to mean the same thing. To eliminate confusion over distinctions between these terms and to ensure consistency with the use of these terms throughout FTA’s programs, FTA is defining “performance criteria” to mean “performance measures,” and it will use the term “performance measures” throughout this notice, the final National Safety Plan and associated rulemakings, accordingly.

COMMENT - Performance Measures:

Injuries and Fatalities

One commenter stated that an insufficient amount of fatality information is currently being collected nationally. The commenter suggested that as a result, there is not enough information to appropriately analyze the factors related to fatalities such that anyone would be able to develop actions to prevent incidences from occurring. Without appropriate data, the commenter suggested that FTA cannot conduct a true analysis of factors leading to fatalities.

Two commenters stated that the National Safety Plan indicates that the SSO final rule and all future safety rulemakings will define reportable accident/incidences in terms of injuries. However, they asserted that the SSO rulemaking never defined a reporting measure as proposed in the National Safety Plan and requested additional information on this topic.

One commenter recommended that the National Safety Plan use travel miles ('train miles' for the rail industry) instead of unlinked passenger trips for the purpose of standardizing the number of injuries and fatalities for the purpose of the performance measure.

Additional comments recommended that FTA express employee injury rates in terms of injuries per X employees or X hours of work.

FTA'S RESPONSE:

The proposed safety performance measures were derived from information that recipients already report to the NTD. Transit agencies already conduct their own investigations into the probable causes and contributing factors, as well as root cause analyses of organizational issues that influenced the causes or consequences of safety events. Each agency should use its own data to assess its performance.

FTA agrees that it is important to standardize the performance measures. Currently, through the NTD, FTA requires transit agencies to submit their total passenger trips, passenger miles, and vehicle revenue miles. FTA chose unlinked passenger trips as the denominator for the Fatalities and Injuries measures in the proposed National Safety Plan because we believed that it reflected better a passenger's exposure to risk. Based on the comments received, and after further consideration, FTA has changed the denominator for the performance measures from "unlinked passenger trips" to "vehicle revenue miles." FTA believes that "vehicle revenue miles" is more closely tied to risk as each additional vehicle mile of service increases risk of a collision with a pedestrian or third party vehicle.

In the first National Safety Plan, the Injury and Fatality measures apply only to passengers. FTA may establish measures for patrons, pedestrians, transit employees, occupants of other vehicles, or trespassers in future National Safety Plan iterations, after receiving input from the public.

Reliability

Multiple commenters questioned the appropriateness of using “reliability” as a performance measure of a SMS program. These commenters stated that performance measures should be limited to safety metrics. Other commenters questioned the redundancy of the term “reliability,” as “state of good repair” requirements should cover reliability issues and render this measure moot. Some commenters went on to request that FTA remove the measure from the performance list. An additional commenter stated that the definition of “reliability” is not defined in the NTD glossary.

Commenters generally supporting the use of reliability measures in the transportation industry commented that there are currently inconsistencies between system reliability standards in the National Safety Plan and the state of good repair measures that were proposed in the Transit Asset Management notice of proposed rulemaking (NPRM). The commenters recommended that system reliability should be more heavily linked with the Transit Asset Management rule rather than the National Safety Plan.

Several commenters provided support for the use of “reliability” as a performance measure but requested additional guidance and greater clarity on certain aspects of the measure. One commenter requested that FTA provide guidance as to what constitutes a reliability issue that requires reporting and recommended that non-safety mechanical

failures not be included. Similarly, another commenter advised FTA to clarify the definition of “vehicle failure” to ensure that the term only refers to when a vehicle is unable to transport passengers.

FTA'S RESPONSE:

Through MAP-21, Congress recognized the critical relationship between safety and transit asset management. We note, in particular, the congressional requirement that the National Safety Plan include the definition for “state of good repair” as established in the rulemaking for transit asset management (49 U.S.C. 5329(b)(2)(B)) and the requirement at 49 U.S.C. 5329(d)(1)(C) that public transportation agency safety plans include state of good repair performance targets based on the performance measures established in the National Safety Plan.

The safety and performance of a public transportation system depend, in part, on the condition of its assets. A key challenge in connecting transit asset management to safety planning is that even when assets are not in a state of good repair, they can be operated safely, and, likewise, assets in a state of good repair can be operated unsafely. In the National Safety Plan, reliability is not a synonym for state of good repair. Rather, the proposed reliability measure is intended to serve as an expression of the relationship between safety and asset conditions, and therefore is neither duplicative nor inconsistent with the performance measure under the Transit Asset Management rule.

To clarify, at this time, the reliability measure applies only to revenue vehicles. The mean distance (miles) between failures is a standard industry metric. In the National Safety Plan FTA is not changing the way a “failure” is defined. Currently, FTA requires most Section 5307 recipients to report the following information: (1) total number of

failures (major failures and minor failures); and (2) total vehicle miles by mode. “Major failures” are failures caused by vehicle malfunctions or subpar vehicle condition which requires that it be pulled from service. “Minor failures” represent instances where a vehicle is pulled out of service for local policy reasons. For example, a transit agency may prohibit operation of a bus with inoperable air conditioning (AC) even though the bus could operate without AC.

FTA agrees with the comment suggesting that the reliability measure should only capture major mechanical failures since “minor failures” are linked to local policy. FTA has revised the measure in the final National Safety Plan to be “mean distance between major mechanical failures by mode.” “Major mechanical failures” only encompass vehicles failures, and not the failure of infrastructure, equipment, etc.

Transit operators should combine this data to arrive at a number for mean distance between major mechanical failures by mode, and then set a target to improve performance for this measure. This may require agencies that currently are not required to report to the NTD, to begin collecting major mechanical failures and vehicle miles by mode. However, nothing in the Plan changes reporting requirements or requires recipients to report any new information. Each agency will set targets based on the data it collects and FTA will not be collecting those targets.

Establishing Baselines

Several commenters provided commentary on the establishment of baselines for performance metrics. Two commenters questioned how FTA will gather sufficient and consistent data to establish baseline measurements. One commenter stated that FTA may struggle to gather consistent three-year data to be able to establish an initial time-

weighted average for FTA's proposed safety criterion measures. Another commenter stated that baselines should not be established for all performance measures and that it is not appropriate for agencies to set baseline targets for fatalities and injuries, as anything above zero would be inappropriate.

An additional commenter recommended that FTA require transit agencies to establish baseline performance metrics for each different system (age, use, etc.) within the larger transportation system. This commenter asserted that large transit systems often have heterogeneous transportation infrastructure and it may not be appropriate or efficient to combine all systems under one set of metrics.

FTA'S RESPONSE:

FTA acknowledges that it may be difficult for agencies with immature safety risk management processes to establish baselines. However, FTA believes that establishing baseline targets is necessary for agencies to assess improvements in safety performance for future comparison. Although the baseline target for any safety performance measure should include at least three years of data to establish an initial time-weighted average (metric) for the measure, initial baseline targets may be based on the best available information to an agency.

The National Safety Plan does not prescribe a methodology for establishing baseline targets. FTA recognizes that each transit agency has its own operating policies that impact how performance is measured. However, FTA hopes that bringing greater attention to safety performance through the National Safety Plan will encourage more robust, consistent data collection, analysis and reporting in the future.

Other Comments on Safety Performance Measures

Multiple commenters recommended expanding the list of performance measures. One commenter requested that FTA avoid duplicative requirements in performance measures. One commenter recommended that FTA expand the list of performance measures to include measures for job safety analysis, operational performance for employees, rule compliance, close calls and near misses, and hazard identification and mitigation. Two commenters requested that FTA add leading indicators to the list of measures to promote proactive aspects of the SMS.

Several commenters requested that FTA provide more information about the performance measures, including additional information about implementation and guidance concerning “local safety plans.” One commenter asserted that the current performance measures are inappropriate.

One commenter stated that the current NTD has sufficient data to create performance targets at the national level, thereby developing consistent safety goals throughout the transit industry.

FTA'S RESPONSE:

The performance measures proposed in the National Safety Plan were designed to provide a strategic approach to improving safety performance in the day-to-day operations of public transportation. As the Safety Program matures, FTA will establish additional performance measures. Until such time, the final National Safety Plan maintains the proposed performance measures. In addition, at this time, FTA is not establishing national performance targets, but may do so in the future.

FTA disagrees that the proposed performance measures are inappropriate. The proposed safety performance measures were derived from information that recipients

already report to the NTD. It is important to note that the performance measures established in the final National Safety Plan are the minimum measures that operators must set targets to under their public transportation agency safety plans. Until such time as FTA establishes additional measures based on leading indicators, FTA encourages transit agencies to add more proactive, leading measures into their own performance metrics.

MAP-21 created a performance-based and multimodal program to strengthen the U.S. transportation system. By focusing on national goals, increasing accountability, and improving transparency, these changes will improve decision-making through better informed planning and programming. The U.S. Department of Transportation is implementing the new MAP-21 performance requirements through a number of rulemakings and Plans that establish performance measures and target setting requirements for recipients. FTA will issue guidance to assist the transit industry as it implements safety and transit asset management performance management. Upon issuance of the Agency Safety Plan rule FTA will provide specific guidance on implementing the requirements for public transportation agency safety plans.

Data Collection

One commenter requested clarification on how data gathered under an SMS program can be used to anticipate future risks if the exact causes of many accidents are often unknown. The commenter also questioned how FTA will gather at least three years of consistent data to establish averages for FTA's proposed safety performance measures, as indicated in the National Safety Plan.

Two commenters stated that data collection must be consistent across all FTA programs and clear reporting definitions must be crafted to ensure consistency. A couple of commenters requested additional clarification regarding how agencies should use the data they collect in conjuncture with data collected by other transit agencies. Those commenters asked whether or not transit agencies should compare safety data with other agencies when creating their own SMS plans. Some commenters expressed concern about the potential burdens of data collection if agencies are encouraged to collect and analyze safety data from other organizations to include in their safety plans.

One commenter recommended that FTA establish a strategic data management plan to aid in the standardization and analysis of safety data, suggesting that the NTD and SSO program should be used to analyze historical safety trends and establish minimum hazard criteria and targets. Another commenter indicated that it would be helpful if FTA establish a website where safety performance data analysis results could be shared and reviewed.

FTA'S RESPONSE:

Managing safety performance with current data and analysis is critical to the success of any effective SMS. SMS data collection efforts are more comprehensive than traditional methods. If transit agencies lack relevant information it may cause them to leave unaddressed critical gaps in safety. In SMS, agencies anticipate future risk by measuring proactive mitigation efforts to determine the effectiveness of those efforts. These measures look at behaviors or performance linked to accident prevention or organizational actions taken before accidents occur, which lessen the likelihood the negative events will occur. Lagging measures are also necessary by revealing the

frequency of missed targets and identifying where insufficiently mitigated risk needs to be addressed.

FTA recognizes the importance of data collection and analysis and setting goals based on this information. Accordingly, FTA has tasked TRACS to develop recommendations that help define the functional requirements of a comprehensive safety data and performance management approach that will inform FTA of the data required to implement an effective transit Safety Management System and how to collect and employ it to effectively improve safety performance. FTA is seeking specific recommendations on how it should standardize safety performance tools and capabilities, including safety performance monitoring; safety performance measurement, including standard definitions and baselines; hazard management and risk monitoring capabilities; and standard methods for data analysis and storage. FTA intends to utilize the TRACS recommendations in its development of enhanced internal data capabilities and guidance for the transit industry.

COMMENTS: Relationship between Safety Performance and Transit Asset Management:

A couple of commenters stated that there are several inconsistencies between the National Safety Plan and FTA's Transit Asset Management rule, and that these inconsistencies should be eliminated. One commenter recommended that the Transit Asset Management rule serve as the standard across all Section 5329 rules.

FTA'S RESPONSE:

FTA disagrees that the proposed National Safety Plan was inconsistent with Transit Asset Management NPRM. FTA's approach to Transit Asset Management is consistent with SMS. A fundamental aspect of transit asset management is the monitoring

of asset condition data as an indicator of system performance. Similarly, SMS is a formal data-driven approach to managing safety risk and assuring the effectiveness of safety risk mitigations. SMS does not require that a specific action be taken to address a specific safety risk. SMS merely provides an agency with the information necessary to identify and understand safety risks, and subsequently make a determination about how to mitigate those risks.

C. Chapter III-Managing Risks and Assuring Safe Performance in Public Transportation

COMMENTS: Safety Advisories:

A few commenters provided comments concerning safety advisories. One commenter stated that safety advisories are beneficial, but they would be more valuable if they were issued with greater frequency and included analysis of the impact of previous safety advisories. Another commenter requested that FTA issue safety advisories for the bus industry along with the rail industry, while another agency requested more information related to how transit agencies should incorporate safety advisories into their safety plans.

FTA'S RESPONSE:

Due to the nature of an advisory, an operator need not “comply” with an advisory, but instead would decide whether or not to adopt the recommended actions. Each operator should determine whether or not the hazard or risk addressed in an advisory is relevant to its system and determine appropriate mitigations.

To date, FTA has only issued advisories related to hazards or risks that may impact rail transit operators. In the future FTA may issues advisories for other modes of transit.

COMMENTS: Standards:

Multiple commenters provided input on the voluntary nature of the National Safety Plan's safety standards. Several commenters, including multiple State DOTs and a Federal agency, expressed concern about the voluntary nature of the program. These commenters suggested that Congress intended for (and required) FTA to establish minimum mandatory criteria, not voluntary criteria, and that FTA should adjust the National Safety Plan accordingly by making the National Safety Plan a regulation instead of a guidance document. One commenter asserted that performance measures in operations should be based on robust rules-based compliance programs with an emphasis on mentoring and coaching.

Other commenters approved of the voluntary nature of the National Safety Plan's safety standards. One commenter praised the National Safety Plan for being prescriptively limited and voluntary, which would allow agencies greater flexibility in implementing a safety program.

One commenter noted that voluntary standards for heavy and light rail are inadequate and are in need of revision. The commenter stated that heavy and light rail vehicles need additional crashworthiness, event recorder, safety appliance, fire, and camera safety standards.

Several commenters responded to a request from FTA to provide examples of voluntary safety standards that transit agencies have adopted.

A couple of commenters strongly encouraged FTA to strengthen vehicle safety performance standards by adding a fire safety component, noting that current fire safety provisions, particularly with regards to the interior of the vehicle, are insufficient. The commenters recommended that fire performance standards for vehicle seating be included in the National Safety Plan. Several commenters stated that FMVSS 302 is not adequate to ensure fire safety in public transit systems and is a standard that has been discredited by repeated scientific study. A number of commenters specifically singled out bus systems as a particularly inappropriate use of the FMVSS 302 standard, stating that FMVSS 302 is a bare minimum standard for cars that should not apply to buses because buses hold more people and have fewer potential exits.

Several commenters provided recommendations for standards that could replace FMVSS 302. Some commenters recommended FTA use the National Safety Council fire test, ASTM E2574, NFPA 130, or a heat release standard instead. These commenters recommended that fire standards should be requirements, not recommendations.

One commenter noted that it has adopted the Federal Motor Carrier Safety Administration (FMCSA) regulations as a baseline to follow for operations and maintenance safety and encouraged FTA to include these standards in the National Safety Plan. Another commenter indicated that it has adopted The American Society of Mechanical Engineers (ASME) safety standards for heavy rail vehicles, Institute of Electrical and Electronics Engineers (IEEE) standards for rail transit event recorders, and National Fire Protection Association (NFPA) standards for fixed guideway transit and passenger rail systems.

One commenter responded to FTA's request for comments on the costs of implementing voluntary safety standards, indicating that the cost of implementing voluntary safety standards was minimal. One commenter responded to FTA's request for examples of additional standards adopted by transit agencies, stating that it has adopted the R179 Train Specification standards in addition to voluntary safety standards.

Some commenters suggested that FTA include hour-of-service and fitness for duty requirements, as well as standards for train specifications (R179). A transit agency and a professional association recommended that transit policing and customer expectation standards should be included in the National Safety Plan.

FTA'S RESPONSE:

For this first iteration of the National Safety Plan FTA believes that it is appropriate to include only voluntary standards. The FAST Act requires the Secretary of Transportation to conduct a review of public transportation safety standards and protocols to document existing standards and protocols that are currently used in transit and examine their efficacy. The content of the review must include minimum safety performance standards developed by the public transportation industry and safety performance standards, practices, or protocols in use by rail fixed guideway public transportation systems. The review also must include rail and bus safety standards, practices, or protocols in use by public transportation systems regarding rail and bus design and the workstation of rail and bus operators; scheduling fixed route rail and bus service with adequate time and access for operators to use restroom facilities; fatigue management; and crash avoidance and worthiness.

FTA has engaged in this review through the issuance of a *Federal Register* notice requesting public comment on its Compendium (inventory) of transit safety standards and protocols. See 81 FR 30605 (May 17, 2016). The Compendium includes an inventory of transit standards and protocols that FTA has identified, including standards or regulations promulgated by other Federal agencies and the standards and issue areas referenced in the comments.

Upon completion of the review and evaluation, FTA will issue a report presenting the findings of the review of standards; the outcome of the evaluation; a comprehensive set of recommendations to improve the safety of the public transportation industry, including recommendations for regulatory changes, if applicable; and actions taken to address the recommendations provided.

FTA will issue future mandatory standards through the notice and comment rulemaking process.

Carolyn Flowers

Acting Administrator

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