

National Transportation Safety Board

Office of the Chair

Washington, DC 20594



July 31, 2023

US Department of Transportation
Docket Management System
West Building, Ground Floor, Room W12-140
Routing Symbol M-30
1200 New Jersey Ave., SE
Washington, DC 20590-0001

Attention: Docket No. FTA–2023-0010

Dear Sir or Madam:

The National Transportation Safety Board (NTSB) has reviewed the Federal Transit Administration’s (FTA) notice of availability of the proposed National Public Transportation Safety Plan (NPTSP), published at 88 *Federal Register* 34917 on May 31, 2023.¹ In the request for comments, the FTA states that the proposed NPTSP would rescind and replace the plan that the FTA published in January 2017. The request for comments also notes that the new version of the NPTSP, like the previous one, is intended to guide the national effort to manage safety risk in our nation’s public transportation systems. The FTA notes that the updated NPTSP incorporates new elements (such as safety performance measures) required by the 2021 Infrastructure Investment and Jobs Act.

The NTSB supports the FTA’s initiative to update the NPTSP. However, we believe that the draft plan falls short in providing transit agencies with the tools they need to develop safety management systems (SMS) that would effectively manage safety risks in US public transportation systems. We offer comments on the FTA’s proposed NPTSP in the following topic areas: safety management systems; employee reporting and resolution systems; additional references; and requirements.

¹ We also reviewed the proposed update to the plan that is referenced in the request for comments and available at Docket No. FTA–2023–0010. For more information, see <https://www.regulations.gov/document/FTA-2023-0010-0002>.

Safety Management Systems

In the proposed NPTSP update and the previous version, the FTA notes that it has adopted the principles and methods of SMS as the basis for enhancing the safety of public transportation in the US. One of the five safety focus areas that guide the FTA's implementation of the proposed plan is a "performance-based approach to SMS." The FTA states that this focus area enhances the SMS approach by identifying and mitigating safety risk in transit systems before harmful consequences occur.

The NTSB agrees that identifying and mitigating safety risks, which is based on data analysis, is a foundational concept in SMS. However, in our view, the NPTSP lacks guidance to transit agencies on how to use the data they collect. We believe that transit agencies need clear direction to be able to analyze safety data both immediately and over time, use leading indicators to identify new and developing safety issues, and evaluate the continued effectiveness of implemented risk control strategies. Without guidance on conducting data analysis, the FTA's proposed plan leaves transit agencies without the tools they need to establish sound safety assurance processes, which are the backbone of an effective SMS.

Two NTSB investigations show that transit agencies often have data that would alert them to potential safety issues but lack the processes to use it. The NTSB investigated the January 12, 2015, smoke accident involving a Washington Metropolitan Area Transit Authority (WMATA) train stopped in a tunnel near the L'Enfant Plaza station in Washington, DC, which resulted in 1 fatality and 91 injuries.² Many of the findings in our investigation note that had WMATA effectively used its existing internal procedures and quality assurance processes, it would have identified the safety issues that led to the accident. We recommended that WMATA review and revise its quality assurance program to ensure that regular quality assurance audits are included to identify and correct any elements of procedural noncompliance ([R-16-31](#)).³

In another case of a transit agency lacking strong data analysis processes, the NTSB investigated a series of accidents that occurred between May 2013 and March 2014 involving Metro-North Railroad operations in the New York City tri-state area which, in combination, resulted in 6 fatalities and 126 injuries. Our investigation found the following:

The Metro-North Railroad Safety and Security Department was ineffective in identifying and resolving operational or process safety

² For more information, see *Washington Metropolitan Area Transit Authority L'Enfant Plaza Station Electrical Arcing and Smoke Accident Washington, D.C. January 12, 2015*. [NTSB/RAR-16/01](#). Washington, DC: NTSB.

³ (a) Safety Recommendation R-16-31 is classified Closed—Acceptable Action. (b) Use NTSB's [CAROL Query](#) for more information about this and other NTSB safety recommendations.

issues across its departments, and the organizational structure of Metro-North Railroad and its safety programs did not support effective safety risk management of all its departments and functions.⁴

We issued Safety Recommendations R-14-66, -67, and -68 to the Metropolitan Transportation Authority, which includes the New York City Transit Authority (NYCTA), an agency under the FTA's jurisdiction. The recommendations are currently classified Open—Acceptable Response and read as follows:

Require representatives from your operating divisions to regularly review safety and operational data from all divisions to identify safety issues and trends and share the results across your operating properties. ([R-14-66](#)).

Establish a program to systematically evaluate deficiencies identified on one Metropolitan Transportation Authority property, and determine the applicability of safety mitigations to other Metropolitan Transportation Authority properties. ([R-14-67](#))

Develop an oversight and tracking process to ensure that the recommendations from the various investigations and reviews of Metro-North Railroad are coordinated, addressed, and resolved at all Metropolitan Transportation Authority properties. ([R-14-68](#))

We believe the 2015 WMATA and 2014 Metro-North investigations and associated recommendations demonstrate the need for the NPTSP to include data analysis guidance.

Employee Reporting and Resolution Systems

The proposed NPTSP does not contain guidance on employee reporting and resolution systems. However, the NTSB believes that the NPTSP should provide guidance or standards on the establishment of such systems for transit agencies. Transit agencies are required to establish employee reporting and resolution systems to mitigate safety risks through non-punitive measures, a critical component of an SMS system. Appropriate guidance from the FTA can help ensure the effectiveness of these systems.

Two NTSB investigations demonstrate the value of these types of programs. The NTSB investigated the November 3, 2016, accident involving an NYCTA subway train that struck two NYCTA employees in Brooklyn, New York, which resulted in one

⁴ For more information, see *Organizational Factors in Metro-North Railroad Accidents, Special Investigation Report, November 19, 2014*. [NTSB/SIR 14-04](#). Washington, DC: NTSB.

fatality and one serious injury.⁵ We recommended that the Metropolitan Transportation Authority's NYCTA modify its close call reporting system to include the anonymous and confidential reporting of hazards and near misses ([R-19-35](#)). In September 2019, after the NYCTA established an employee safety call center for employees to report safety concerns 24 hours a day, 7 days a week, we classified the recommendation Closed—Acceptable Action.

In another example of the value of employee reporting and resolution systems, the NTSB investigated the June 22, 2009, collision between two WMATA trains near the Fort Totten station in Washington, DC, which resulted in 9 fatalities and 52 people being taken to local hospitals.⁶ We recommended that the FTA facilitate the development of non-punitive safety reporting programs at all transit agencies to collect reports from employees and to regularly review these reports ([R-10-4](#)). In June 2013, after the release of the FTA-sponsored Transportation Cooperative Research Program publication that emphasized the need for transit agencies to develop the system recommended in R-10-4, we classified the recommendation Closed—Acceptable Action.⁷

We believe the 2016 NYCTA and 2009 WMATA investigations, associated recommendations, and subsequent implementation of employee reporting systems demonstrate the benefits of transit agencies establishing employee reporting and resolution systems and using the information these systems collect to identify and mitigate the safety issues that employees report. While the FTA has a requirement for employee reporting and resolution systems, the proposed plan does not provide guidance or best practices on this topic. The FTA should address this need in the NPTSP.

Additional References

The last chapter of the NPTSP contains voluntary standards and best practices that transit agencies should consider and use when developing SMS. Where applicable, the NPTSP references related NTSB safety recommendations and additional documentation from other safety agencies. We agree with the inclusion of these items and offer additional references for FTA to include in the plan.

⁵ For more information, see *NTSB Railroad Accident Brief New York City Transit Train Strikes Two Flagmen Brooklyn, New York November 3, 2016*. [RAB1903](#). Washington, DC: NTSB.

⁶ For more information, see *Collision of Two Washington Metropolitan Area Transit Authority Metrorail Trains Near Fort Totten Station Washington, D.C. June 22, 2009*. [NTSB/RAR-10/02](#). Washington, DC: NTSB.

⁷ For more information, see *Transportation Cooperative Research Program 149: Improving Safety-Related Rules Compliance in the Public Transportation Industry*. 2011. Washington, DC: Transportation Research Board of the National Academies.

- Category A: Transit Worker Safety; Subcategory A.3: Fatigue Management, Fitness for Duty, and Employee Distraction
 - [R-09-11](#)⁸
- Category B: Pedestrian and Bicyclist Safety⁹
 - [H-13-11](#), [H-14-1](#), [H-19-35](#)¹⁰
- Category C: Rail Grade Crossing Safety
 - [R-17-11](#)¹¹
- Category I: Operations Procedures, Compliance, and Training
 - [R-14-40](#) and [R-14-41](#)¹²
 - [Transportation Cooperative Research Program 149](#)¹³

We believe that updating the NPTSP to include the referenced NTSB safety recommendations and Transportation Cooperative Research Program report will provide transit agencies with additional resources to develop strong SMS.

Requirements

In the proposed NPTSP, the FTA states that the agency has identified voluntary minimum safety standards and recommended practices for improving public transportation safety. The FTA notes that voluntary standards ensure the safe operation of public transportation systems and views these standards as a comprehensive approach to roadway safety within the US. In the proposed plan, the FTA also states that voluntary standards support the transit industry in assessing and mitigating safety risk.

The NTSB believes that to support transit agencies in assessing and mitigating safety risks, the FTA needs to issue requirements in addition to the guidance and voluntary standards it offers in the NPTSP. In the last decade, we have recommended that the FTA issue requirements in many of the safety categories listed in the NPTSP.

⁸ Safety Recommendation R-09-11 is classified Open — Unacceptable Response.

⁹ Although the NTSB has not issued recommendations on this subject for transit vehicles, we have issued recommendations addressing similar concerns.

¹⁰ Safety Recommendation H-13-11 and H-14-1 are classified Open — Unacceptable Response. Safety Recommendation H-19-35 is classified Open — Await Response.

¹¹ Safety Recommendation R-17-11 is classified Open — Acceptable Response.

¹² Safety Recommendations R-14-40 and R-14-41 are classified Open — Acceptable Response.

¹³ *Transportation Cooperative Research Program 149*, previously referenced in these comments, contains beneficial guidance to transit agencies for improving safety related rules compliance.

We mention these recommendations in the appendix to these comments and encourage the FTA to consider them in future rulemaking.¹⁴

Summary

The NTSB believes that the FTA's proposed NPTSP should include guidance on SMS data analysis and address the topic of employee reporting and resolution systems. We have also provided additional references for the FTA to include in the NPTSP. Lastly, we note our safety recommendations that call on the FTA to issue requirements to transit agencies in addition to the guidance it offers in documents like the NPTSP.

Thank you for the opportunity to comment on this notice.

Sincerely,

[Original Signed]

Jennifer Homendy Chair

¹⁴ See Appendix: National Transportation Safety Board Safety Recommendations Calling for Federal Transit Agency Requirements

Appendix: National Transportation Safety Board Safety Recommendations Calling for Federal Transit Agency Requirements

The National Transportation Safety Board notes its safety recommendations calling on the Federal Transit Agency to issue requirements to transit agencies. This is not an exhaustive list but corresponds to the relevant voluntary safety standards and recommended practices categories mentioned in the NPTSP.

- Category A: Transit Worker Safety; Subcategory A.2: Roadway Worker Protections
 - R-13-39 TO THE FEDERAL TRANSIT ADMINISTRATION: Issue a directive to all transit properties requiring redundant protection for roadway workers, such as positive train control, secondary warning devices, or shunting. (Open—Acceptable Response)
 - R-13-40 TO THE FEDERAL TRANSIT ADMINISTRATION: Issue a directive to require all transit properties to review their wayside worker rules and procedures and revise them as necessary to eliminate any authorization that depends solely on the roadway worker to provide protection from trains and moving equipment. (Open—Acceptable Response)
 - R-14-36 TO THE FEDERAL TRANSIT ADMINISTRATION: Require initial and recurring training for roadway workers in hazard recognition and mitigation. Such training should include recognition and mitigation of the hazards of tasks being performed by coworkers. (Open—Acceptable Response)
 - R-14-38 TO THE FEDERAL TRANSIT ADMINISTRATION: With assistance from the Federal Railroad Administration and the Occupational Safety and Health Administration, establish roadway worker protection rules, including requirements for job briefings. (Open—Acceptable Response)
 - R-14-40 TO THE FEDERAL TRANSIT ADMINISTRATION: Establish a national inspection program that specifically includes roadway worker activities. (Open—Acceptable Response)
- Category E: Tunnel Ventilation and Fire Safety
 - R-16-01 TO THE FEDERAL TRANSIT ADMINISTRATION: Issue regulatory standards for tunnel infrastructure inspection, maintenance, and repair, incorporating applicable industry consensus standards into those standards. (Open—Acceptable Response)
 - R-16-02 TO THE FEDERAL TRANSIT ADMINISTRATION: Issue regulatory safety standards for emergency egress in tunnel environments. (Open—Acceptable Response)
- Category F: Signal System

- R-15-22 TO FEDERAL TRANSIT ADMINISTRATION: Require rail transit agencies to implement transmission-based train control systems that prevent train collisions.
- Category G: Vehicle Safety; Subcategory G.1: Vehicle Crashworthiness and Brake Testing
 - R-06-06 TO FEDERAL TRANSIT ADMINISTRATION: Develop minimum crashworthiness standards to prevent the telescoping of transit railcars in collisions and establish a timetable for removing equipment that cannot be modified to meet the new standards. (Open—Unacceptable Response)
 - R-17-04 TO FEDERAL TRANSIT ADMINISTRATION: Utilize your authority under Title 49 Code of Federal Regulations 670.25, and issue a general directive that would require all state safety oversight agencies to direct rail transit agencies to periodically test the performance of all of their rail transit vehicle braking systems to detect potential latent system failures. (Open—Acceptable Response)
- Category G: Vehicle Safety; Subcategory G.2: Vehicle End-of-Railcar Door Messaging
 - R-19-39 TO FEDERAL TRANSIT ADMINISTRATION: Use your authority under Title 49 United States Code Part 5329 to develop standards for safety messaging for end-of-railcar doors, including appropriate sign location, text, and symbols to be placed on rolling stock. (Closed—Unacceptable Action)
 - R-39-40 TO FEDERAL TRANSIT ADMINISTRATION: Once the messaging standards are successfully developed, use your authority under Title 49 Code of Federal Regulations 670.25 to immediately issue a general directive that would require all rail transit agencies to implement those standards on applicable rolling stock. (Closed—Unacceptable Action)
- Category H: Electronic Recording Devices and Cameras
 - R-15-23 TO THE FEDERAL TRANSIT ADMINISTRATION: Require that new or rehabilitated rail transit vehicles be equipped with event recorders meeting Institute of Electrical and Electronics Engineers Standard 1482.1 for rail transit vehicle event recorders. (Open—Unacceptable Response)
 - R-17-13 TO FEDERAL TRANSIT ADMINISTRATION: 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 train crew actions and 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 and as a tool to improve operational safety (Open—Acceptable Response)

- H-22-003 TO THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION: Require that all buses and trucks over 10,000 pounds gross vehicle weight rating be equipped with onboard video event recorders that record, at a minimum, parametric data associated with the event, such as real clock time, GPS location, and acceleration data, and visibility of the driver's face and of each occupant seating location, visibility of the instrument panel, visibility forward of the vehicle, optimized frame rate, and low-light recording capability (Open—Unacceptable Response)
- Category I: Operations Procedures, Compliance, and Training
 - R-14-40 TO FEDERAL TRANSIT ADMINISTRATION: Establish a national inspection program that specifically includes roadway worker activities. (Open—Acceptable Response)
 - R-14-41 TO FEDERAL TRANSIT ADMINISTRATION: Revise Title 49 Code of Federal Regulations (CFR) Part 659 to require all federally funded rail transit properties to comply with 29 CFR Parts 1904, 1910, and 1926 (Open—Acceptable Response)