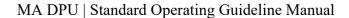
RAIL TRANSIT SAFETY DIVISION

# STANDARD OPERATING GUIDELINE MANUAL







# **Table of Contents**

2.1 Description of the SSO Program	2
2.2 Technical Training Plan	6
2.4 Program Standard Reviews and Updates	10
2.5 Annual Program Status Report	14
2.6 Conflicts of Interest	17
2.7 Use of Enforcement Authority and Dispute Resolution	19
2.7a Field Engagement and Findings of Potential Non-Compliance	24
2.9 Internal SSO Program Meetings	32
3.1 PTASP Review and Approval Process	34
3.2 MBTA Minimum Standards for Safety	40
4.2 SSOR System and Annual Submission	43
5.1 Notifications and Investigations	55
5.3 Triennial Audit of the MBTA	74
5.4 Hazard Tracking	80
5.5 Corrective Action Plans and Corrective Actions	84
5.6 Safety Risk Management Monitoring Process and Activities	94
5.6a Right of Way Access Policy	102
5.8 Risk-Based Inspection Program	107
5.9 Inspection and Verification Plans	131
6.1 Preparing Grant Applications and Monitoring Grant Spending	136
6.2 Disadvantaged Business Enterprise Program	139

# **Appendices**

Appendix A:	Rail Transit Safety Division Organizational Chart
Appendix B:	Technical Training Plan
Appendix C:	Conflict of Interest Identification and Review form
Appendix D:	Dispute Resolution Process
Appendix E:	FTA's Public Transportation Agency Safety Plan Review Checklist
Appendix F:	RTSD Risk Levels for Incident Types
Appendix G:	Disadvantages Business Enterprise Program Policy Statement

This document provides internal guidance to RTSD employees to assist in conducting State Safety Oversight activities. It is not intended to, does not, and may not be relied upon to create any rights, substantive or procedural, enforceable at law by any party in any matter administrative, civil, or criminal. Nor are any limitations hereby placed on otherwise lawful enforcement and litigation prerogatives of the Department of Public Utilities.



Section 2.1 – Description of the SSO Program		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.03	
Reference		
Federal Regulation	49 C.F.R. Part 674.25(a)	
Reference		

# I. PURPOSE

The purpose of the federal State Safety Oversight ("SSO") program is to oversee safety at rail fixed guideway public transportation systems ("rail transit systems" or "RFGPTS") throughout the United States. These rail transit systems are typically subway and related systems that are not regulated by the Federal Railroad Administration. The Massachusetts Bay Transportation Authority's ("MBTA") Red (including the Mattapan Trolley), Green, Orange, and Blue Lines are the sole rail transit system in Massachusetts. The Federal Transit Administration ("FTA") establishes SSO program standards and delegates its authority to eligible states with rail transit systems. FTA provides federal funds using the SSO Formula Grant Program for eligible states to develop and carry out the SSO program through the state's SSO Agency ("SSOA"). Under 49 U.S.C. Section 5329(e), as amended by the Moving Ahead for Progress in the 21st Century Act ("MAP-21"), FTA is required to certify each state's SSO program to ensure compliance with MAP-21.

The Department of Public Utilities ("DPU") is a regulatory agency overseen by a three-member Commission. The DPU is the designated SSOA for the Commonwealth of Massachusetts. Within the DPU, the Rail Transit Safety Division ("RTSD") is charged with overseeing rail transit safety of equipment and operations at the MBTA using the criteria and requirements set forth in 49 C.F.R. Part 674. The FTA certified the DPU's SSO program on March 19, 2018.

# II. REQUIREMENT

As the SSOA, the DPU has direct responsibility to carry out the safety requirements established in 49 C.F.R. Part 674, the Program Standard ("Program Standard"), 220 CMR 151.00, the requirements of FTA Special Directive 22-34 Risk Based Inspection and procedures outlined in the RTSD's Program Standard.

Part 674.25(a) describes the role of the SSOA and 220 CMR 151.02 defines the SSOA, as follows:

• 49 C.F.R. § 674.25(a) – Role of the State safety oversight agency



O An SSOA must establish minimum standards for the safety of all rail fixed guideway public transportation systems within its oversight. These minimum standards must be consistent with the National Public Transportation Safety Plan, the Public Transportation Safety Certification Training Program, the rules for Public Transportation Agency Safety Plans and all applicable Federal and State law.

# • 220 CMR 151.02 – Definitions

State Safety Oversight Agency (SSOA). An agency established by a State that
meets the requirements and performs the functions specified by 49 U.S.C. 5329(e)
and 49 C.F.R. Part 674. The Department is the SSOA for the Commonwealth of
Massachusetts.

On October 21, 2022, FTA issued special directives to all SSOAs to develop and implement risk-based inspection programs in accordance with changes to FTA's Public Transportation Safety Program as required by the Bipartisan Infrastructure Law. The Commonwealth of Massachusetts was issued Special Directive 22-34 for this requirement.

# III. GUIDANCE

The MBTA is the only transit authority which operates a rail transit system in Massachusetts. As the SSOA, the DPU's primary responsibilities are to annually review, test, and approve the MBTA's Agency Safety Plan, and to monitor the MBTA's compliance with the Program Standard and the DPU's SSOA Program Standard. To carry out this mission, the DPU, through the RTSD:

- (1) performs random safety risk monitoring activities of MBTA light and heavy rail subway cars and operation facilities; these may include carhouses, stations, office buildings, equipment, infrastructure, rolling stock, operations, data, records and other facilities and assets owned or operated by the MBTA;
- (2) reviews and participates in internal safety audits to further enhance compliance and effectiveness of the MBTA's safety plan;
- (3) conducts external safety audits which are designed to monitor compliance with program requirements;
- (4) conducts a continuing risk-based review of the MBTA's operations and infrastructure;
- (5) requires MBTA to take corrective actions as necessary;
- (6) complies with the FTA's annual reporting requirements; and
- (7) takes other actions as necessary to conduct oversight of safety of equipment and operations for the MBTA.

# A. DIVISION ORGANIZATIONAL STRUCTURE

The RTSD team consists of the following staff: RTSD Director; Assistant Directors; Rail Transit Engineers; Rail Transit Safety Data and Risk Manager Analysts; Rail Transit Safety



Compliance Officers / Investigators; Division Legal Counsel; and third-party subject matter experts or consultants, as needed.

The RTSD Leadership Team consists of the RTSD Director, two Assistant Directors, and the RTSD Assistant General Counsel. The RTSD Organizational Chart is available at Appendix A.

# B. ANNUAL REPORTING REQUIREMENTS

49 C.F.R. Part 674 requires that the SSOA report on the status of the RFGPTS in its jurisdiction at least once a year. At a minimum, the SSOA must report to the Governor, FTA, and the board of directors of each RFGPTS or equivalent agency.

As outlined in Standard Operating Guideline Manual ("SOG") Section 4.2, FTA State Safety Oversight Reporting (SSOR) Tool and Annual Submission, during the annual reporting process the SSOA will submit at a minimum:

- Adopted Program Standard including any changes made in the preceding twelve months;
- A summary of the SSO agency Public Transportation Safety Certification Training Program status;
- An SSO agency report encompassing SSO program activities conducted in the preceding twelve months;
- Summary of SSO agency triennial audit(s) completed for the preceding twelve months and progress on triennial corrective action plans ("CAPs");
- SSOA approval of the Public Transportation Agency Safety Plan, including any changes made in the preceding twelve months; and
- SSO program certification of program compliance.

# C. DESCRIPTION OF WORKLOAD ASSESSMENT AND WORKLOAD TASKS

The FTA requires that the SSO program demonstrate that the State has determined an appropriate staffing level for the SSOA commensurate with the number, size, and complexity of the RFGPTS. 49 C.F.R. 674.11(d). To meet this requirement, the SSO program must submit a workload assessment and a formal plan that clearly outlines SSO activities and the resources and the Full Time Equivalents ("FTEs") necessary to complete these activities. The SSOA must clearly indicate its plans and timelines to acquire additional resources needed to meet its full workload assessment resourcing requirements. The SSOA develops the workload assessment plan by identifying the workload tasks, matching those tasks with staff duties, and the number of hours spent annually on the task, including but not limited to:

- Program Management
- Reporting Requirements
- Monitoring Hazards
- Audit Activities/Safety Risk Monitoring Activities
- Investigations



- FTA Directives
- Risk-Based Inspection

The RTSD submitted a workload assessment and matched the resources outlined within the workload assessment in compliance with FTA Special Directive 22-13. Additionally, the RTSD has integrated the workload assessment process into an annual process to guide RTSD Leadership decisions regarding staffing and key additional tasks:

- Update and maintain implementation plans and procedures for new safety duties related to risk-based inspections and other new rules;
- Obtain and analyze comprehensive rail transit system data, including but not limited to, safety, maintenance, and inspection data as well as other available data sets on an ongoing basis. Document safety concern analysis and inspection prioritization based on risk, including development and maintenance of a data management system in compliance with RBI program requirements;
- Conduct risk-based inspections on an ongoing basis for each RTA, communicate methods and results with RTAs, complete RBI inspection reports, and develop remedial actions and CAPs as necessary based on inspections; and
- Enhancements to review, approve, track, monitor, and physically verify implementation of each CAP and related corrective action.

# IV. RESPONSIBILITIES

RTSD employees shall familiarize themselves with all aspects of the SSO program by:

- 1. Reviewing 49 C.F.R. Part 674, 220 CMR 151.00, and the SOG; and
- 2. Completing all required SSO program training in accordance with the RTSD technical training plan.

# **Additional Documents**

• Appendix A: Rail Transit Safety Division Organizational Chart

# **Updates:**

July 2, 2021 – initial release

March 24, 2025 - Revision



Section 2.2 – Technical Training Plan	
Version Effective Date	March 24, 2025
Massachusetts Regulation	
Reference	
Federal Regulation	49 C.F.R. 672 and 49 C.F.R. 674.25(h)
Reference	

# . PURPOSE

The Massachusetts Department of Public Utilities ("DPU") is the designated State Safety Oversight Agency ("SSOA") for Massachusetts pursuant to 49 USC 5329(e), 49 C.F.R. Part 674, G.L. c. 161A, § 3, and 220 CMR 151.02. As the SSOA, the DPU has formed the Rail Transit Safety Division ("RTSD") to monitor and oversee the safety of rail transit operations and safety at the Massachusetts Bay Transportation Authority ("MBTA").

To fulfill its obligations as the SSOA, the RTSD must meet the requirements of 49 C.F.R. Part 672. Pursuant to 49 C.F.R. Part 672, this Technical Training Plan ("TTP") details how RTSD staff will obtain technical training to complete the Public Transportation Safety Certification Training Program ("PTSCTP") and meet its mandated competency areas required by the PTSCTP along with any additional competency areas established by the RTSD. This section explains the TTP that is utilized by the RTSD to ensure competency areas are met within the requirements of the 49 C.F.R. Part 674.

# II. REQUIREMENT

# 49 C.F.R. 672.11

- (a) Each SSOA shall designate its personnel and contractors who conduct safety audits and examinations of public transportation systems, including appropriate managers and supervisors of such personnel, that must comply with the applicable training requirements of Appendix A to this part.
- (b) Designated personnel shall complete applicable training requirements of this part within three (3) years of their initial designation. Thereafter, refresher training shall be completed every two (2) years. The SSOA shall determine refresher training requirements which must include, at a minimum, one (1) hour of safety oversight training.

# 49 C.F.R. 674.25(h)

(h) All designated personnel employed by an SSOA must comply with the requirements of the Public Transportation Safety Certification Training Program.

# III. GUIDANCE



The PTSCTP Final Rule ("Training Rule"), 49 C.F.R. 672, establishes a uniform curriculum for safety training that consists of minimum requirements to enhance the technical proficiency of rail transit safety personnel.

The Training Rule, effective on August 20, 2018, implements Federal Transit Administration's ("FTA") requirement for a public transportation safety certification training program. The Training Rule sets forth federal requirements for the certification and training of SSOA staff and contractors who conduct safety audits and examinations of rail transit systems and rail transit agency personnel and contractors who are directly responsible for safety oversight.

Additionally, on October 21, 2022, the FTA issued Special Directive 22-34 regarding Risk-Based Inspection ("RBI"). SSOAs, including DPU, are responsible for ensuring their RBI programs meet the requirements of the directive. This includes sufficient staff and resources to conduct and carry out the RBI program with staff skilled in the competencies needed to fulfill program requirements such as data analysis, risk assessment, and inspection. Further, SSOAs must be able to verify the capability of its staff to conduct RBI oversight activities.

SSOA staff conducting safety audits and inspections of public transportation systems and their supervisors must complete these training requirements. All competency areas have program documentation, training requirements, and criteria listed for completion. These elements will be taught through review of that documentation and discussion with RTSD staff, which will be approved by the RTSD Leadership. Some portions of this program documentation and training on MBTA Standard Operating Procedures are completed in the field (for example, on a train, at facilities, and/or on the right-of-way). In addition, some courses as noted are taken through the MBTA's Learning Management System ("LMS"). Finally, some courses are available in-person or online through the U.S. Department of Transportation's ("USDOT") Transportation Safety Institute.

All documents required under each core competency are saved on the RTSD's Shared Drive under the TTP Reference Documents folder. The TTP and hiring process must be a consistent balance of team development and appropriate training. The RTSD Leadership Team will work with and review these competency areas as a continual process to ensure the training plan remains an ongoing process and meets the needs of staff members. This is supplemented by additional continuing education, mentorship programs, and additional training requirements as the programs develop. A full copy of the current RTSD's TTP is available in Appendix B.



# IV. RESPONSIBILITIES

# A. RECORDKEEPING AND ADMINISTRATION REQUIREMENTS

In accordance with 49 C.F.R. 672.21(b), the RTSD retains training records and certificates for five years from their creation. All training records must be made available to those who might need to review or audit those records.

In general, RTSD must ensure that its staff are enrolled in the PTSCTP, and that each employee's training record is updated to comply with 49 C.F.R. Part 672.21. The disclosure of an individual's training records is addressed in 49 C.F.R. Part 672.23. The RTSD may not disclose an individual's training records without written permission from the individual unless a regulation requires it, or if the FTA or the National Transportation Safety Board ("NTSB") requests the record as part of a safety event investigation. RTSD will consult 49 C.F.R. Part 672.23 and applicable laws prior to releasing training records to any external body.

# B. MAINTENANCE OF COMPETENCY REQUIREMENTS

The RTSD recruits experienced safety and rail transit personnel and pursues completion of the FTA's technical training requirements for staff members. The RTSD also utilizes MBTA training programs to enhance staff knowledge in various areas of the FTA required training and its own TTP. The RTSD coordinates with MBTA to identify available training courses suitable for the enhancement of RTSD staff competency in various rail transit technical areas. The RTSD has access to MBTA's LMS, which includes computer-based training courses to support a strong foundation of knowledge for specific competency areas. Additionally, the RTSD utilizes consultants as subject matter experts whenever necessary or warranted.

RTSD staff take internal training programs related to Standard Operations Guideline Manual, policies, procedures, the Program Standard, MBTA's Public Transit Agency Safety Plan, and various other areas. The RTSD conducts in-house training designed to enhance staff knowledge obtained in certification training by making content specific to the MBTA. The RTSD also uses training offered by others, for example, the NTSB, the USDOT Transportation Safety Institute, and other outside vendors as determined by RTSD Leadership.

# C. INTERNAL TRACKING OF TRAINING

The RTSD Leadership designates one member of the RTSD staff who will maintain copies of the training records and certificates (known as the designated SSOA employee). RTSD staff are individually responsible for collecting their own training completion certificates and providing them to the designated SSOA employee who maintains training records. RTSD



staff must email copies of their certificates or other proof of completion to the designated SSOA employee.

The designated SSOA employee saves a copy of the certificate or other proof of completion on the RTSD SharePoint and updates the training matrix accordingly.

TSI/FTA required training is tracked separately from the TTP training required by the RTSD.

# **Additional Documents**

• Appendix B: Technical Training Plan

# **Updates:**

September 2023 – initial release

March 24, 2025 – revised



Section 2.4 – Program Standard Reviews and Updates		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.01(9); 220 CMR 151.02; 220 CMR	
Reference	151.10(3)(a)(1)	
Federal Regulation	49 CFR §674.25(a); 49 CFR §674.27(a)(2)	
Reference		

# I. PURPOSE

This procedure explains why and when the Department of Public Utilities ("DPU" or "Department"), as the State Safety Oversight Agency ("SSOA") must review and revise its Program Standard, comprised of 220 CMR 151.00 and the Standard Operating Guideline Manual ("SOG").

# II. REQUIREMENT

The SSOA must review and revise its Program Standard (Regulations and SOG) based on the following requirements. Please note that the terms *rail fixed guideway public transportation system* and *transportation authority* as used below each refer to the Massachusetts Bay Transportation Authority ("MBTA"). Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

- Role of the State safety oversight agency
  - o 49 CFR §674.25(a) An SSOA must establish minimum standards for the safety of all rail fixed guideway public transportation systems within its oversight. These minimum standards must be consistent with the National Public Transportation Safety Plan, the Public Transportation Safety Certification Training Program, the rules for Public Transportation Agency Safety Plans and all applicable Federal and State law.
- State safety oversight program standards
  - 49 CFR §674.27(a)(2) Program standard development. The SSO program standard must explain the SSOA's process for developing, reviewing, adopting, and revising its minimum standards for safety, and distributing those standards to the rail fixed guideway public transportation systems.
  - o 220 CMR 151.01 Purpose and Scope
    - (9) Where revisions are necessary to the 220 CMR 151.00, the Department will conduct a rulemaking proceeding, in accordance with M.G.L. c. 30A §§ 1 through 6A, 950 CMR 20.00: Preparing and Filing Regulations and 220 CMR 2.00: Rules for Adopting, Amending, or Repealing Regulations and for Issuing Advisory Rulings, to amend 220



CMR 151.00. The Department will submit the amended System Safety Program Standard to the Transportation Authority within 30 days of Department promulgation. The Transportation Authority must acknowledge within one business day receipt of the amended System Safety Program Standard in writing and provide a schedule for implementation in its System Safety Program Plan or Public Transportation Agency Safety Plan within 60 days thereof.

- o 220 CMR 151.02 Definitions
  - Program Standard. A written document developed and approved by the State Safety Oversight Agency, that describes the policies, objectives, responsibilities, and procedures used to provide rail transit agency safety oversight.
- Annual Reporting
  - o 220 CMR 151.10 Management and Oversight Process
    - (3) Reporting Requirements to FTA.
      - (a) Annual Submission. Before March 15th of each year, the Department must submit the following material to the FTA:
        - 1. The Department program standard, and supporting procedures, approved in accordance with 49 CFR Part 674.27, with an indication of any changes to the Department program standard during the preceding 12 months.

# III. GUIDANCE

As part of its annual submission to the FTA,<sup>1</sup> the DPU is required to provide a copy of the current Program Standard and indicate whether the DPU has revised the Program Standard in the preceding 12 months. Therefore, at a minimum, the Rail Transit Safety Division ("RTSD") reviews its Program Standard on an annual basis, or more frequently at its discretion.

The Program Standard is codified as a Massachusetts regulation at 220 CMR 151.00 and in the SOG. To revise the Program Standard, there are different procedures for promulgating (including amending) regulations and for amending the SOG. To promulgate regulations, the RTSD must comply with the DPU's procedures for a rulemaking, 220 CMR 2.00, as well as the Commonwealth's procedures under G.L. c. 30A and 950 CMR 20.00. During the rulemaking process, RTSD staff will confer with the DPU's Legal Division and the Commission. The Commission will sign the DPU's Order implementing the rulemaking proceeding. A rulemaking proceeding may take six months to a year to complete, or longer. As part of the promulgation

Refer to SOG Section 4.2 FTA SSOR System and Annual Submission for more information.



process, MBTA as well as any interested person has the opportunity to review and comment on RTSD's proposed amendments. DPU considers all comments submitted within the comment period, and may adjust the proposed amendments based on those comments as warranted. Within 30 days of the DPU's promulgation of the revised regulation, the RTSD will also submit the revised regulation to the MBTA. The MBTA must acknowledge receipt of the revised regulation in writing and provide a schedule to the RTSD<sup>2</sup> within 60 days.

The SOG is not a regulation, so revisions are not subject to the same process as a regulation. SOG revisions are drafted by RTSD, the draft SOG revisions are sent to MBTA for review and comment, RTSD considers any comments from MBTA and may adjust the draft revisions as warranted based on those comments. The timeframe RTSD provides for MBTA review is based on the length of the draft SOG revision, e.g., one week for a short revision or two weeks or longer for lengthy revisions. Final SOG revisions for final review and approval are sent to the DPU Commissioner delegated by the Commission Chair to oversee the RTSD. When the revision is final, DPU posts the revised SOG on its website.

# IV. RESPONSIBILITIES

The RTSD should review the Program Standard annually by the end of each calendar year, as a target. The RTSD Counsel will facilitate the RTSD's review of the Program Standard. RTSD staff will participate in this process by submitting suggested revisions to the Program Standard to the RTSD Counsel on an ongoing basis throughout the year. The RTSD Counsel will maintain a tracking sheet in the Share Point for all suggested revisions to the Program Standard. When RTSD Counsel and the RTSD Director determine that the needed revisions to the regulations found at 220 CMR 151 are significant enough to require a rulemaking proceeding, the RTSD Counsel or Director will confer with the Legal Division to commence DPU's rulemaking proceeding. The proceeding officially begins when DPU assigns a docket number and issues an Order, signed by the Commission, instituting a rulemaking.<sup>3</sup> Changes to the SOG may occur more frequently.

The RTSD Counsel with assistance from the RTSD Director or other RTSD staff, prepares a redlined version of the revised regulatory portion of the Program Standard that will be attached to the initial Order. The initial Order will announce a comment period to allow interested parties to submit comments on RTSD's proposed revisions and a date for a public hearing. The RTSD Counsel will circulate all comments submitted to DPU to RTSD staff for review and

MBTA currently refers to their PTASP as "Transportation Safety Plan."

To understand the rulemaking procedure, it is helpful to review the docket sheet of a recent Program Standard rulemaking. To do so, go to the DPU's online File Room (<a href="https://eeaonline.eea.state.ma.us/DPU/Fileroom/dockets/bynumber">https://eeaonline.eea.state.ma.us/DPU/Fileroom/dockets/bynumber</a>) and enter "17-132" in the search box in the upper left corner.



consideration. The RTSD Counsel will draft the final Order for Commission signature. The final Order will include a summary of all comments received, DPU's rationale to either accept or reject stakeholder suggestions, and a copy of the final regulations. The final version of 220 CMR 151.00 will be filed with, and published by, the Massachusetts Secretary of the Commonwealth's Office. The RTSD Director will send a copy of the final regulations to the MBTA.

# **Additional Documents**

None

# **Updates:**

July 2, 2021 – initial release

March 24, 2025 – revised



Section 2.5 – Annual Program Status Report	
Version Effective Date	March 24, 2025
Massachusetts Regulation	220 CMR 151.01(12)
Reference	
Federal Regulation	49 C.F.R. Part 674.13(a)(7)
Reference	

# PURPOSE

The purpose of this procedure is to provide guidance for producing the Annual Program Status Report. This report must be delivered annually to the Federal Transit Administration ("FTA"), Governor of the Commonwealth of Massachusetts, and the board of directors (or equivalent) of the MBTA.

# II. REQUIREMENT

The Annual Program Status Report is required by 49 C.F.R. Part 674.13(a)(7) and codified in the Department of Public Utilities ("DPU") Program Standard at 220 CMR 151.01(12). Please note that the terms *rail fixed guideway public transportation system* and *transportation authority* as used below each refer to the MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

- 49 C.F.R. Part 674.13(a)(7) At least once a year, the SSOA reports the status of the safety of each rail fixed guideway public transportation system to the Governor, the FTA, and the board of directors, or equivalent entity, of the rail fixed guideway public transportation system.
- 220 CMR 151.01(12) The Department shall submit an annual report summarizing the oversight activities related to the Transportation Authority of the safety of the rail fixed guideway system to the Governor of the Commonwealth of Massachusetts, the Federal Transit Administration, and the board of directors of the Transportation Authority.

# III. GUIDANCE

The purpose of the Annual Program Status Report is to provide a high-level summary of the prior year's oversight activities to the Governor, the FTA, and the board of directors (or equivalent entity) of the MBTA. Although the FTA does not require a specific set of metrics or the method of delivery for the report, the report must, at a minimum, consist of major activities and accomplishments of the DPU State Safety Oversight ("SSO") program, including the RTSD's interactions with the MBTA, the status of the MBTA's rail safety program, and the status of RTSD's oversight. To provide an adequate description of the status of the MBTA's rail



safety program, the report should identify the total number of reportable investigations and the number of corrective actions created by the MBTA and tracked by the DPU's SSO program.

The purpose of this procedure is to provide guidance to staff assigned to draft the report. Specifically, this procedure provides drafting deadlines, an outline of the report, the review process, and the method of delivery to submit the report to the required recipients.

# IV. RESPONSIBILITIES

At the end of each calendar year, the RTSD Director may assign RTSD staff to draft the report. The RTSD Director shall give the draft report to RTSD Counsel for initial review in Quarter 1 of the following year. The RTSD Leadership team and RTSD Counsel will update the draft report to incorporate all changes and send a revised draft to the DPU General Counsel or Deputy General Counsel for review. The RTSD Director shall incorporate those edits to the revised draft. The RTSD Director shall submit the final report to the DPU Chair for signature. The Chair or designee will forward the final report to the Governor's Office, FTA, and the MBTA's Board of Directors (or equivalent).

The RTSD Director will forward a copy of the final report to the MBTA's General Manager and Chief Safety Officer. The RTSD Director shall save the final report to the RTSD SharePoint.

# **Outline of Annual Program Status Report**

- The report consists of a letter addressed to the Governor, copying the FTA, the MBTA Board of Directors, and the MBTA Safety Division.
- Subsections of the letter include:
  - o Introduction summarizing the regulatory authority of the DPU as the SSOA;
  - o Accomplishments and major activities of the DPU's SSO Program;
  - o Highlights or anticipated activities for the next calendar year;
  - o Data driven analysis and reporting of MBTA operations and activities; and
  - o Other items as determined.

# **Additional Documents**

None

# **Updates:**

February 1, 2021 – initial release

March 24, 2025 – revised



Section 2.6 – Conflict of Interest	
Version Effective Date	March 24, 2025
Massachusetts Regulation	220 CMR 151.01(10); 220 CMR 151.01(11); 220 CMR 151.10(4)
Reference	
Federal Regulation	49 C.F.R. Part 674.41
Reference	

# I. PURPOSE

The purpose of this section is to explain how to identify a conflict of interest ("COI"), the procedure for recording and reviewing a COI, and a form for recording how the COI was reviewed and resolved. Completed forms will be saved by the Department of Public Utilities ("DPU").

# II. REQUIREMENT

This procedure is required based on 49 C.F.R. Part 674.41 and codified in our Program Standard at 220 CMR 151.01(10), 220 CMR 151.01(11) and 220 CMR 151.10(4). Please note that the terms *rail fixed guideway public transportation system* and *transportation authority* as used below each refer to the MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

# • 49 C.F.R. Part 674.41 Conflicts of Interest.

- (a) An SSOA must be financially and legally independent from any rail fixed guideway public transportation system under the oversight of the SSOA, unless the Administrator has issued a waiver of this requirement in accordance with § 674.13(b).
- (b) An SSOA may not employ any individual who provides services to a rail fixed guideway public transportation system under the oversight of the SSOA, unless the Administrator has issued a waiver of this requirement in accordance with § 674.13(b).
- (c) A contractor may not provide services to both an SSOA and a rail fixed guideway public transportation system under the oversight of that SSOA, unless the Administrator has issued a waiver of this prohibition.

# • 220 CMR 151.01: Purpose and Scope.

(10) - The Department and the Transportation Authority operate as legally and financially independent agencies. There is an absolute funding prohibition between the Department and the Transportation Authority.



- (11) The Department does not employ any individual who is also responsible for administering, or providing services to, the Transportation Authority.
- 220 CMR 151.10(4) Conflict of Interest. In its oversight of the Transportation Authority's PTASP, the Department shall prohibit a party or entity from providing services to both the Department and the Transportation Authority concerning the PTASP so as to avoid conflicts of interest.

# III. GUIDANCE

The federal regulation requires that the DPU as SSOA and MBTA are *financially* independent from one another. Therefore, the DPU cannot provide funding to the MBTA, and the MBTA cannot provide funding to the DPU. Also, if the DPU and MBTA were to cost share an expense, such as sharing the cost of a consultant to provide an expert opinion, a possible COI exists.

The federal regulation requires that the DPU and MBTA are legally independent from one another. In Massachusetts, the Rail Transit Safety Division ("RTSD") is under the DPU and the DPU reports to the Secretary of the Executive Office of Energy and Environmental Affairs, who reports to the Governor. The MBTA is overseen by the Massachusetts Bay Transportation Authority Board of Directors ("Board"). The MBTA reports to the Board. Further, the MBTA is housed within the Massachusetts Department of Transportation, which is a distinct secretariat from the Executive Office of Energy and Environmental Affairs. The DPU and MBTA are sufficiently separate in a management chain to be legally independent.

The federal regulation prohibits an individual or entity from providing services to both the SSOA and a rail system. Therefore, a DPU employee may not be employed by or consult to the MBTA and vice versa. Although former MBTA employees may be employed by the SSOA, a COI or the appearance of a COI might exist for former employees of the MBTA who are now employed by the DPU. A DPU employee must disclose when they cannot be impartial or unbiased on a particular matter because of a prior relationship or because of a prior work responsibility at the MBTA. Furthermore, even if an employee is confident that they can remain impartial and unbiased, but it is likely that it would appear to others that they have COI, the employee should make a disclosure about a prior relationship or work responsibility. When in doubt, employees should err on the side of caution and consult the RTSD Counsel or the DPU's General Counsel about whether a disclosure is advised. In further support of this policy, the RTSD instituted a cooling off period, wherein a former MBTA employee is restricted from engaging in specific oversight enforcement activities related to their prior employment with the MBTA for a sixmonth period after leaving the MBTA. This timeframe can be extended by RTSD Leadership, if necessary.



Additionally, a contractor or consultant cannot provide services to both the DPU and MBTA unless the FTA approves a waiver. Each contractor or consultant hired by the DPU must make a full disclosure of current and potential conflicts of interest and should disclose prior professional or personal relationships that might impact or appear to impact their ability to remain impartial and unbiased.

When it appears that a COI exists because a contractor or consultant works or desires to work for both the DPU and MBTA, the contractor or consultant may not provide services to both.

# IV. RESPONSIBILITIES

All RTSD staff must identify and disclose their own potential COI or the appearance of a COI. The disclosure should be made in writing to the RTSD Director or their designee.

All RTSD staff must identify and assess potential COIs of other individuals or entities to help determine if a violation of the regulations may exist. This assessment and determination may require discussions with other staff, RTSD Counsel, the DPU Legal Division, or the Commission.

Staff will use the COI Identification and Review Form, attached at Appendix C, to describe the potential COI and record the DPU's review and analysis of the COI, as well as how the COI was resolved. The DPU will maintain a record of every completed COI Identification and Review Form for 5 years.

# **Additional Documents**

• Appendix C: Conflict of Interest Identification and Review Form

# **Updates:**

February 1, 2021 – initial release March 24, 2025 – revised

Section 2.7 - Use of Enforcement Authority and Dispute Resolution	
Version Effective Date	October 29, 2025
Statutory Authority	G.L. c. 161A, § 3(i)
Massachusetts Regulation	220 CMR 151.01(3); 220 CMR 151.07(7); 220 CMR 151.09(8);
Reference	220 CMR 151.10(c)
Federal Regulation	49 C.F.R. Part 674.27(a)(1)
Reference	

# I. PURPOSE

This section addresses the enforcement authority of the Department of Public Utilities ("DPU"), as administered by its Rail Transit Safety Division ("RTSD"), over the safety of rail transit operations of the Massachusetts Bay Transportation Authority ("MBTA") and its authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan ("PTASP"). This section also describes the dispute resolution process for situations when the RTSD and MBTA disagree about the PTASP, Investigation Reports, Corrective Actions, or any other matter as determined by RTSD. Disputes are typically resolved through discussion between RTSD and MBTA. If RTSD and MBTA cannot resolve a dispute, RTSD may issue an Order directing MBTA to act. Final Orders may be appealed directly to the Supreme Judicial Court of Massachusetts pursuant to G.L. c. 25, § 5 and 220 CMR 1.13.

# II. REQUIREMENT

DPU is designated by the Commonwealth of Massachusetts as the State Safety Oversight Agency. DPU's authority is established in Massachusetts General Laws and regulations. DPU exercises oversight of the safety of equipment and operations of the MBTA pursuant to G.L. c. 161A, § 3(i) which states that MBTA operates the system without being subject to the DPU's jurisdiction except for safety. DPU does not have the authority to issue fines or penalties to MBTA.

Below are excerpts from the relevant statutes and regulations defining DPU's authority and procedures. Please note that the terms *rail fixed guideway public transportation system*, *transportation authority*, and *authority* as used below each refer to MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA"), *Department of Telecommunications and Energy*, and *Department* as used below each refer to DPU.

**G.L. c. 161A, § 3(i):** The authority shall be governed, and its corporate powers exercised by the Massachusetts Bay Transportation Authority board of directors established in section 7. In addition to the powers granted to the authority by law, the authority shall have the following powers:

i.To provide mass transportation service, whether directly, jointly or under contract, on an exclusive basis, in the area constituting the authority and without being subject to the jurisdiction and control of the department of telecommunications and energy in any manner except as to safety of equipment and operations....

- **G.L. c. 161A, § 39**: In the event of any conflict between the regulatory powers and duties of the department of telecommunications and energy [DPU] and the regulatory powers and duties of the authority within its area, the department of telecommunications and energy [DPU] shall resolve such dispute and exercise such powers as it deems required in the particular instance.
- 49 C.F.R. Part 674.27(a)(1): Program management. The SSO program standard must explain the authority of the SSOA to oversee the safety of rail fixed guideway public transportation systems; the policies that govern the activities of the SSOA; the reporting requirements that govern both the SSOA and the rail fixed guideway public transportation systems; and the steps the SSOA will take to ensure open, on-going communication between the SSOA and every rail fixed guideway public transportation system within its oversight.
- **220** CMR 151.01(3): The Department of Public Utilities [DPU] exercises jurisdiction over safety of equipment and operations of the Transportation Authority pursuant to M.G.L. c. 161A, § 3(i). In addition, pursuant to 49 C.F.R. Part 674, the [DPU] has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.

[The process for resolving a disagreement or dispute with the MBTA is addressed in 220 CMR 151.07(7), 151.09(8) and 151.10(c)]

- **220** CMR 151.07(7): If the Department is unable to approve a proposed CAP or to resolve a dispute with the Transportation Authority resulting from the development or enforcement of a CAP, the Department must either:
  - (a) Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved;
  - (b) Develop, and submit to the Transportation Authority for implementation, its own written CAP or enforcement procedures according to the requirements of 220 CMR 151.07; or
  - (c) Issue any Order that it deems necessary.
- **220 CMR 151.09(8)**: If the Department is unable to approve a final [investigation] report, or to resolve a dispute with the Transportation Authority resulting from the development of a final report, the Department must either:
  - a. Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved; or
  - b. Conduct its own investigation according to the requirements of 220 CMR 151.09, and submit the final report to the Transportation Authority for implementation, allowing the Transportation Authority an opportunity to file a written dissent pursuant to the procedures outlined in the Standard Operating Guideline Manual; or
  - c. Issue any Order that it deems necessary.
- **220** CMR 151.10(1)(c): If the Department is unable to approve a final [PTASP] document, or to resolve a dispute with the Transportation Authority resulting from the development of the document, the Department must either:

- (1) Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved;
- (2) Develop its own document according to the requirements of the relevant section, and submit it to the Transportation Authority for implementation; or
- (3) Issue any Order that it deems necessary.

# III. GUIDANCE

In compliance with FTA requirements, RTSD's Program Standard is a combination of the promulgated regulations 220 CMR 151.00 and the RTSD-issued Standard Operating Guideline Manual ("SOG"). The Program Standard specifies how RTSD will carry out its oversight activities. The Program Standard, primarily the regulations, also contains provisions requiring MBTA to initiate CAPs, conduct investigations, update its PTSAP, and perform other safety activities.

In addition, the SOG provides specific procedures and guidance, primarily for RTSD staff, so that all oversight activities are conducted in a uniform manner and consistent with laws and regulations. The SOG provides direction for RTSD staff, but it does not bind the DPU Commission to take any particular action or limit the action of the Commission.

# A. RESOLVING DISAGREEMENTS

# 1. General

RTSD expects that MBTA will comply with all of its directives regarding safety. In the event MBTA does not agree with a finding or directive, the RTSD will seek to resolve the disagreement pursuant to the process set forth below. Ultimately, the MBTA must comply with any final order, subject to its judicial appeal rights.

DPU's regulations provide a procedure for resolving a dispute:

- during the development and implementation of Corrective Action Plans ("CAPs") in accordance with 220 CMR 151.07,
- following the RTSD's review of Final Investigation Reports in accordance with 220 CMR 151.09, and
- during the RTSD's review of the PTASP or an annual report on the internal safety audit process in accordance with 220 CMR 151.10.

In addition to those situations, disagreements between RTSD and MBTA may arise on any other matter. Regardless of the nature of the disagreement, RTSD will use the same general process, beginning with an informal discussion and, if necessary, escalating to a written directive and formal enforcement action. For example, if RTSD is conducting an inspection and verification plan of a CAP and finds that MBTA is out of compliance with a rule, procedure, or deadline to provide information to RTSD, the same general process may be used to resolve a disagreement. Some inspection and verification plans may have escalation thresholds built into the plan, and RTSD staff should be aware of this while they conduct their activities.

# 2. Negotiated Dispute Resolution

**First Stage, Informal Discussion Between Staff.** The first stage to resolve a disagreement is the informal discussion. RTSD will attempt to resolve differences through an informal discussion between RTSD staff and MBTA staff (unless the matter is already at the Second Stage). Following the informal discussion, if the disagreement is resolved, RTSD staff will confirm, in writing, the resolution including any agreed to actions. RTSD will provide MBTA with a draft of the resolution, and MBTA should review it within the time period requested by RTSD staff, and if necessary provide any comments or suggested revisions in writing. If MBTA accepts the resolution as written, or if MBTA's comments or suggestions result in a final resolution, RTSD staff will submit the final resolution to the RTSD Director and the MBTA Chief Safety Officer ("CSO"). If the disagreement is not resolved, it advances to the second stage.

Second Stage, Discussion Between RTSD Director and CSO. If a disagreement remains unresolved, the RTSD Director will seek to resolve the disagreement directly with the MBTA CSO. The RTSD Director or the designated Assistant Director will discuss the issue with the MBTA CSO. If the disagreement gets resolved, the RTSD Director will send a draft of the resolution to the MBTA CSO and copy the MBTA General Manager. The MBTA CSO should review the draft resolution within such time as specified by the RTSD Director, and confirm in writing that it is accurate and the MBTA will undertake the specified actions, or if necessary provide any comments or suggested revisions in writing to the RTSD Director. If MBTA's CSO accepts the resolution as written, or if MBTA's comments or suggestions result in a final resolution, DPU and MBTA will implement the resolution. If the disagreement is not resolved, the MBTA CSO should respond in writing to identify the areas of disagreement that remain and their basis, and the matter advances to the third stage.

Third Stage, Discussion Between RTSD Director and MBTA General Manager. If the matter is not resolved in the second stage, the RTSD Director will notify the MBTA General Manager in writing, and copy the MBTA CSO, of the matter, the areas and basis of disagreement, and any proposals to resolve the matter (or may include any RTSD original or revised directive). The RTSD Director and the MBTA General Manager will discuss the matter to attempt to resolve it. If the disagreement gets resolved, the RTSD Director will send a draft of the resolution to the MBTA General Manager and copy the MBTA CSO. The MBTA General Manager should review the draft resolution within such time as requested by the RTSD Director, and confirm in writing that it is accurate and the MBTA will undertake the specified actions, or, if necessary, provide any comments or suggested revisions in writing to the RTSD Director. If MBTA accepts the resolution as written, or if MBTA's comments or suggestions result in a final resolution, RTSD and MBTA will implement the resolution. If the disagreement is not resolved, the MBTA General Manager should identify the areas of disagreement that remain and its basis.

<sup>3.</sup> Matters Not Resolved Through Negotiated Dispute Resolution

If the matter is not resolved through negotiated dispute resolution, then the RTSD Director will determine what further process is appropriate. Such process may include further attempts to negotiate a resolution with MBTA, issuing a directive or an Order to MBTA in accordance with 220 CMR 151.07, 151.09 and 220 CMR 151.10 to take specified actions (with rights to an adjudicatory proceeding as provided by law), coordination with the Federal Transit Administration for potential action consistent with 49 U.S.C. § 5329 and 49 C.F.R. § 674, referral to the DPU Commission, or any other action permitted by law.

At the discretion of the RTSD Director, the RTSD Director may bypass, or act concurrently with, any of the dispute resolution stages identified in III.A.2 above, to address any urgent or time-critical matter, including proceeding directly to any of the actions identified in III.A.3 above.

In conclusion, resolution of a disagreement could be in whole or in part. DPU's primary goal is to address the rail transit safety conditions at MBTA in a timely manner.

# **Additional Documents**

None

# **Updates:**

May 26, 2022 – initial release

July 5, 2022 – updated to include cites to G.L. c. 159 and to add details to guidance about escalation process.

July 11, 2022 – added disclaimer to introduction and an additional point of clarification to guidance section.

September 30, 2022 – submitted to FTA for review/version pending.

January 6, 2023 – submitted to FTA with revisions directed by FTA

March 27, 2023 – Integrated flow chart for hazard mitigation and dispute resolution

March --, 2025 – revision

October 29, 2025 - revision



Section 2.7a – Field Engagement and Findings of Potential Non-Compliance		
Version Effective Date	April 4, 2025	
Statutory Authority	G.L. c. 161A, § 3(i)	
Massachusetts Regulation	220 CMR 151.01(3); 220 CMR 151.07(7); 220 CMR 151.09(8);	
Reference	220 CMR 151.10(c)	
Federal Regulation	49 C.F.R. Part 674.27(a)(1)	
Reference		

# . PURPOSE

This section provides guidance on the following subjects:

- (1) the dispute resolution process for situations when the Department of Public Utilities' ("DPU") Rail Transit Safety Division ("RTSD") staff are denied access to Massachusetts Bay Transportation Authority ("MBTA") facilities, equipment, personnel, or documents while they are at a location to be inspected (to carry out their safety oversight responsibilities);
- (2) immediate notification by RTSD staff who discover a significant hazard during field engagements on MBTA property that may need immediate mitigation action by MBTA; and
- (3) RTSD staff reporting and documentation procedure for observations of potential non-compliance that require review by RTSD Leadership.

Disputes are typically resolved through discussion between RTSD and MBTA. However, if RTSD and MBTA cannot resolve a dispute, RTSD may ultimately issue an Order, or take any other authorized action, directing MBTA to act. See Standard Operations Guideline ("SOG") Section 2.7.

# II. REQUIREMENT

DPU is designated by the Commonwealth of Massachusetts as the State Safety Oversight Agency ("SSOA"). These SSOA responsibilities are delegated to the Rail Transit Safety Division ("RTSD"). DPU's authority is established in Massachusetts General Laws and regulations. DPU exercises oversight of the safety of equipment and operations of MBTA pursuant to G.L. c. 161A, § 3(i). This statute, together with 220 CMR 151.00 and the MBTA's Public Transit Agency Safety Plan ("PTASP"), grant DPU the requisite authority to access and inspect any part of the MBTA system or information that DPU deems necessary for performing its SSOA responsibilities.

Below are excerpts from the relevant statutes and regulations defining the DPU's authority and procedures. Please note that the terms *rail fixed guideway public transportation system*, *rail* 



transit agency ("RTA"), transit agency and transportation authority as used below each refer to MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

- **G.L. c. 161A, § 3(i):** The authority shall be governed, and its corporate powers exercised by the Massachusetts Bay Transportation Authority board of directors established in section 7. In addition to the powers granted to the authority by law, the authority shall have the following powers:
  - (ii) To provide mass transportation service, whether directly, jointly or under contract, on an exclusive basis, in the area constituting the authority and without being subject to the jurisdiction and control of the department of telecommunications and energy in any manner except as to safety of equipment and operations . . . .
- **G.L. c. 161A, § 39**: In the event of any conflict between the regulatory powers and duties of the department of telecommunications and energy and the regulatory powers and duties of the authority within its area, the department of telecommunications and energy shall resolve such dispute and exercise such powers as it deems required in the particular instance.
- 49 C.F.R. Part 674.27(a)(1): Program management. The SSO program standard must explain the authority of the SSOA to oversee the safety of rail fixed guideway public transportation systems; the policies that govern the activities of the SSOA; the reporting requirements that govern both the SSOA and the rail fixed guideway public transportation systems; and the steps the SSOA will take to ensure open, on-going communication between the SSOA and every rail fixed guideway public transportation system within its oversight.
- **220** CMR 151.01(3): The Department of Public Utilities (Department) exercises jurisdiction over safety of equipment and operations of the Transportation Authority pursuant to M.G.L. c. 161A, § 3(i). In addition, pursuant to 49 CMR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.
- **220 CMR 151.02:** <u>Unannounced On-site Oversight Activity</u>. That, as further outlined in Department's *Standard Operating Guideline Manual*, at any time or place, and without advanced warning, the Department may enter Rail Transit Agency-controlled property to conduct inspections, audits, observations, and investigations to determine whether the Rail Transit Agency is complying with 49 CFR Part 674, applicable regulations, Department policies and procedures, and the Transportation Authority's operation and safety procedures.



# 220 CMR 151.07(1)(e):

- (1) The Transportation Authority must develop a written corrective action plan (CAP) reported on a Department-approved form to address hazardous conditions meeting certain Risk Assessment Codes specified by the Department, and identified through: . . .
- (e) Unannounced On-site Oversight Activities performed by the Department.

# 220 CMR 151.07(3), in part:

The Department may monitor the Transportation Authority's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the Department deems necessary or appropriate. Upon request, the Transportation Authority must allow the Department access to review the data used in the preparation of the CAP.

# 220 CMR 151.09(4), in part:

The Department may conduct an independent investigation or oversee/monitor an investigation conducted by the Transportation Authority. The Transportation Authority shall provide to the Department, upon request, documentation, access to investigative sites, activities, and personnel involved in the investigative process.

# 220 CMR 151.10(5):

<u>Department Access to Information</u>. The Transportation Authority shall grant the Department access to information necessary to discharge the requirements set forth in the Program Standard including, but not limited to:

- (a) Reports generated and databases utilized to monitor the status and performance of the Transportation Authority's rail transit system;
- (b) All approved policies, procedures, directives, system element descriptions (general and technical), or documents that support the SSPP or PTASP;
- (c) The Transportation All-page System;
- (d) The Operations Control Center Log; and
- (e) Maintenance Databases.

## III. GUIDANCE

The following section describes the process RTSD follows during field engagements (1) to obtain entry to MBTA facilities and to carry out RTSD's oversight responsibilities while on-site, (2) the actions RTSD will take upon discovery of significant concerns for life safety, defects,



and/or hazards that require immediate action by MBTA, and (3) reporting and documentation of RTSD staff observations of potential non-compliance.

# A. ACCESS TO MBTA PROPERTY AND INFORMATION

# 1. GENERAL

As required by 49 C.F.R. Part 674, DPU as the SSOA must have the authority to conduct unannounced oversight activities, meaning activities that are not routinely scheduled and occur without advance notice. DPU's regulatory authority for unannounced entry to MBTA property is set forth above under Requirements. RTSD may exercise its discretion in determining when advance notice of inspection is necessary to ensure the availability of records, equipment, officials, or persons to be interviewed, thereby enhancing efficient use of resources. Additionally, with the implementation of the RTSD's Risk-Based Inspection ("RBI") program, RTSD will exercise its RBI obligations by conducting inspections at MBTA both with and without advance notice. See SOG 5.8.

Any RTSD staff may perform an inspection of MBTA related to rail transit safety. For scheduled or announced inspections, the designated staff may notify either the MBTA Safety Division or the specific MBTA department being inspected. Generally, the format of notification will be email, though it may take other forms as appropriate. If accessing MBTA property where the general public is authorized to enter (e.g., a station platform or rail car in revenue service), no MBTA personnel is required to be notified though the designated staff may notify as appropriate under the circumstances. Inspections of documentation at administrative spaces may require an MBTA staff member to assist with review. Any arrangements necessary will be coordinated through the MBTA as needed.

To enable RTSD staff to conduct inspections, all RTSD staff members are issued MBTA badges as "public officials." These badges allow RTSD staff to access MBTA facilities, including stations, offices, the Operations Control Center, rail yards, and carhouses.

When engaging in activities on MBTA property, RTSD staff will adhere to MBTA personal protective equipment ("PPE") rules and track access requirements, including possession of an active Right-of-Way ("ROW") certification when necessary. See SOG Section 5.6a.

# a. RIGHT-OF-WAY ACCESS

All RTSD staff are required as part of the Technical Training Plan to complete the MBTA's ROW Training and receive a ROW license. The ROW license allows RTSD staff to access the



MBTA ROW to complete inspections and other RTSD activities. See SOG 5.6a for ROW access procedures for RTSD staff.

# b. **OBTAINING ACCESS**

- 1. When arriving at an MBTA facility to conduct an inspection or investigation for any reason, RTSD staff shall have on them and present their MBTA-issued "public official" badge. Also, RTSD staff shall have on them, and present if requested, a DPU identification card provided by DPU indicating they are a DPU employee. Also, if entering the ROW, RTSD staff shall have on them their ROW license (indicating compliant with MBTA's ROW training).
- Upon entering the MBTA facility, the RTSD staff shall notify an MBTA supervisor or manager at the location being inspected that they are performing their SSOA oversight responsibilities, unless such notification is impractical or would undermine the purpose of the inspection.
- 3. If an MBTA supervisor or manager is not present, RTSD staff shall ask MBTA staff who are present to notify their supervisor or manager. In such case, RTSD staff do not need to wait for notification to an MBTA supervisor manager to occur before beginning their inspection.

# c. REFUSAL OF ACCESS

In the event that RTSD staff are refused access to MBTA property or documents while at the inspection location, staff should take the following steps:

- 1. Show the MBTA individual who is refusing access the MassDOT/MBTA-issued Security ID and advise that, as the State Safety Oversight Agency, RTSD and its staff have the legal right under 220 CMR 151 to access MBTA facilities to conduct oversight activities. Also, advise that the MBTA Agency Safety Plan acknowledges that RTSD's SSOA staff have the right to conduct inspections of MBTA facilities and records. At Section 1 and 6.
- 2. If access is still refused, and if the person refusing access is not a supervisor or manager of the facility, RTSD staff should ask to speak with an MBTA supervisor or manager at the facility and repeat Step 1.
- 3. If access is still refused (or if there is no MBTA supervisor or manager available to speak to), RTSD staff should leave the premises, or go to a public area on the premises, and contact their RTSD supervisor to advise them of the refusal of access. The supervisor should immediately inform RTSD Leadership.
- 4. RTSD staff should complete a field observation and activities form to document the refusal of access.
- 5. Upon learning of the refusal of access, RTSD Leadership should contact the MBTA Safety Division and advise them of the refusal of access.



- 6. RTSD expects the MBTA Safety Division to quickly resolve the refusal of access with the relevant MBTA person/department so that RTSD staff can gain access while they are still near the location intended to be inspected. The MBTA Safety Division should contact RTSD Leadership in writing to advise that the refusal of access issue has been addressed with the relevant MBTA employees.
- 7. Once the refusal of access has been addressed, RTSD Leadership will inform the RTSD staff that they should return to MBTA location to conduct the necessary oversight activities. RTSD Leadership may take any appropriate action to obtain access for RTSD to perform its SSOA functions.

# d. MBTA SUPPORT RESOURCES

If support resources are needed from MBTA for an RTSD inspection,

- 1. RTSD designated staff should generally expect to receive the requested support within 30 minutes of request.
- 2. If after 30 minutes, MBTA has not yet provided the resources, and if the designated staff believes the delay is not reasonable under the circumstances, the designated staff should notify their supervisor or manager and inform them of the delay.
- 3. The designated staff and supervisor/manager should determine the appropriate course of action, which may include the supervisor/manager contacting MBTA Safety Division or other appropriate MBTA division to expeditiously obtain the requested resources.
- 4. In all cases, the designated staff may contact their supervisor or manager sooner than 30 minutes as appropriate, or longer than 30 minutes, based upon the circumstances.
- 5. The designated staff should notify their supervisor or manager if still waiting for MBTA resources after 45 minutes, regardless of whether the circumstances seem reasonable, to determine next steps.

# B. FOLLOW UP ON INSPECTION

# IDENTIFYING HAZARDS AND IMMEDIATE CONCERNS FOR LIFE SAFETY

As part of the RTSD's routine audit and inspection activities, RTSD staff may identify significant concerns for life safety that may need immediate action by MBTA.

RTSD staff may exercise due diligence in light of their training and experience in evaluating the risk associated with the hazard and determine there is an immediate risk to life, safety, and/or a defect that should receive immediate action by MBTA to mitigate. In the event a hazard identified during an inspection poses a potential immediate danger to life or safety, the RTSD inspector will assess the situation to determine whether immediate notification to the Operations

# MA DPU | Standard Operating Guideline Manual

Control Center ("OCC") and MBTA Safety Division is required. If the situation is assessed to be an emergency, the inspector will end the inspection, move to a safe location as appropriate, contact the OCC to direct an immediate response and initiate a "please call" to the appropriate members of the MBTA Safety Division. The inspector will then notify their RTSD supervisor.

If immediate notification is not required (e.g., the inspector determines there is no immediate danger), the inspector will notify their supervisor of the hazard through the RTSD field inspection form. If an MBTA employee or representative is present when the hazard is identified the inspector should inform the MBTA representative that they will be documenting the hazard. The RTSD supervisory staff or management will then notify the MBTA Safety Division through the formal reporting process.

If RTSD staff is unsure whether what they observed constitutes a significant concern for life safety that needs immediate action by MBTA to mitigate, the staff should immediately contact their supervisor and/or manager to discuss the matter and obtain guidance.

Afterwards, the RTSD staff should report and document the matter in the regular RTSD process.

# REPORTING AND DOCUMENTING FINDINGS OF POTENTIAL NON-COMPLIANCE

The RTSD staff member who identifies an emergency condition shall notify an MBTA employee (e.g., field supervisor) and the OCC immediately. Additionally, after the inspection is concluded, and typically after leaving the location that was inspected, the RTSD staff will document the hazard on the RTSD "Findings for Management Review" Form, which will require corrective or remedial action by MBTA if non-compliance is confirmed by RTSD Leadership.

# a. RTSD SAFETY REPORTING PROCESS

After a hazard has been reported and documented on the Findings for Management Review Form, RTSD Leadership will review the submittal. If non-compliance is confirmed, RTSD will submit the form to the MBTA Safety Division. Depending on the severity of the risk, RTSD may issue an immediate directive to the MBTA via the <a href="mailto:DPUInspections@mbta.com">DPUInspections@mbta.com</a> email address. The Finding for Management Review, with confirmed non-compliance, then flows through the normal CAP process until there is resolution and MBTA acceptance.

# b. <u>FINDINGS OF POTENTIAL NON-COMPLIANCE FOR</u> <u>MANAGEMENT REVIEW</u>

Any findings of potential non-compliance must be documented in accordance with a RTSD field verification activity or audit, and consistent with 220 CMR 151.07 and SOG Section 5.5 – Corrective Action Plans. In emergency situations where immediate action is required to ensure

# MA DPU | Standard Operating Guideline Manual

safety, MBTA is expected to take any actions required to ensure safety prior to its formal CAP preparation and RTSD review process. RTSD staff will also enter their observations into the appropriate Formstack activity or observation form.

# c. CORRECTIVE ACTION PLANS

For CAPs, including initiation, the methodology for determining risk level, and process for review, implementation, and closure is located in SOG Section 5.5 – Corrective Action Plans and Corrective Actions.

# d. DISPUTE RESOLUTION

For dispute resolution of situations that are not addressed above, <u>see</u> SOG Section 2.7 – Use of Enforcement Authority and Dispute Resolution.

# **Additional Documents**

None

# **Updates:**

January 6, 2023 – initial release March 24, 2025 – revised April 4, 2025 – revised



2.9 Internal SSO Program Meetings	
Version Effective Date	March 24, 2025
Massachusetts Regulation	N/A
Reference	
Federal Regulation	N/A
Reference	

# I. PURPOSE

The DPU Rail Transit Safety Division ("RTSD") staff regularly meets internally, as a division and in smaller groups, to continually assess the effectiveness of the state safety oversight ("SSO") program, to discuss issues that may arise, and to plan oversight activities. The purpose of this section is to provide an overview of the RTSD's regularly scheduled internal meetings and to explain how we record any associated documentation from these meetings.

# II. RESPONSIBILITIES

## A. ATTEND MEETINGS

The following is a sampling of meetings taking place within the RTSD over the course of a typical week. Attendance is required for each meeting that meets the requirements of the specific staff member's job responsibilities.

# Weekly Staff Meetings

This meeting is a full staff meeting that encompasses all aspects of the SSO program on a weekly basis in which priorities, strategies, and other critical aspects of the upcoming week are discussed. Included within this meeting is event review (from the week prior), field visit findings, training, and other important items of discussion.

# • Leadership/Consultant Meetings

This is a weekly touchpoint between the RTSD Leadership team and the consultant support within the RTSD. This meeting ensures that there is clear alignment between RTSD Leadership priorities and the consultants.

# • Engineering Team Meetings

o This meeting brings the entire Engineering Team together to work through all aspects of the Engineering Team's responsibilities.

# • Compliance Team Meetings

 This meeting brings the entire Compliance and Investigations Team together to work through all aspects of the Compliance Team's responsibilities. A current



update on investigations, corrective action plans, hazards identified, and other key issues are discussed.

# • Risk-Based Inspection ("RBI") Team Meetings

 The RBI Team meets weekly to discuss development and implementation of the RBI program. This meeting includes Leadership; however, several non-Leadership-led RBI meetings take place additionally throughout the week.

# B. PARTICIPATE AND DOCUMENT MEETING

The agendas for the meetings are hosted on the RTSD's SharePoint and formal documentation of the meeting takes place via Formstack. The use of SharePoint allows for all meeting notes to be captured and stored in one location.

Staff should be prepared to provide a summary to the group of recent activities, events, and other key aspects of their job duties relevant to each meeting. Staff may also use this time to discuss recent events or issues that have arisen with MBTA. Additional break out meetings are hosted as needed with smaller staff and documented in accordance with the above policy.

# **Additional Documents**

None

# **Updates**

December 1, 2021 – initial release

September 2023 – update

March 24, 2025 – revised



Section 3.1 – PTASP Review and Approval Process		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.03; 220 CMR 151.10	
Reference		
Federal Regulation	49 C.F.R. Part 674.25(b)	
Reference		

# I. PURPOSE

The Massachusetts Bay Transportation Authority's ("MBTA") Public Transportation Agency Safety Plan<sup>4</sup> ("PTASP") is the comprehensive agency safety plan ("Agency Safety Plan"), required by 49 U.S.C. § 5329, and consistent with a Safety Management System ("SMS"). An SMS is a formal, top down, organization-wide, data driven approach to managing safety risks and assuring the effectiveness of safety risk mitigations and it includes systematic procedures, practices, and policies for managing risks and hazards. The purpose of the PTASP is to describe the MBTA's implementation of SMS to assure authority, resourcing, safety performance improvement, and full compliance with the MBTA's safety program. Federal regulations require the Department of Public Utilities ("DPU") to review and approve the MBTA's initial PTASP and all subsequent revisions to it. Within DPU, that has been delegated to the Rail Transit Safety Division ("RTSD"). This procedure explains the RTSD's PTASP review and approval process.

# II. REQUIREMENT

Please note that the terms *rail fixed guideway public transportation system*, *rail transit agency* ("RTA"), and *transportation authority* as used below each refer to MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

This procedure is required by 49 C.F.R. Part 674.25(b) and codified in the RTSD's Program Standard at 220 CMR 151.03 and 220 CMR 151.10:

• 49 C.F.R. Part 674.25(b). An SSOA must review and approve the Public Transportation Agency Safety Plan for every rail fixed guideway public transportation system within its oversight. An SSOA must oversee an RTA's execution of its Public Transportation Agency Safety Plan. An SSOA must enforce the execution of a Public Transportation Agency Safety Plan, through an order of a corrective action plan or any other means, as necessary or appropriate. An SSOA must ensure that a Public Transportation Agency Safety Plan meets the requirements at 49 U.S.C. § 5329(d).

MBTA currently refers to its PTASP at the Transit Safety Plan.



# • 220 CMR 151.03 Public Transportation Agency Safety Plan

- 220 CMR 151.03(3). The Transportation Authority shall submit the SSPP [System Safety Program Plan, which is an earlier version of the PTASP] or PTASP to the Department for review and approval prior to its implementation. The SSPP or PTASP should be submitted in electronic format via email to the Program Manager. Supporting procedures and referenced materials may be submitted in hard copy, by fax, mail, email, or in-hand delivery.
- o **220 CMR 151.03(4).** The Transportation Authority shall conduct an annual review of the SSPP or PTASP on or before August 1st of each year and update it as necessary to ensure the SSPP remains current. The Transportation Authority shall submit an updated SSPP or PTASP, and any accompanying procedures, for Department review and approval on or before September 1st of each year. If no updates are required, the Transportation Authority shall so notify the Department in writing before September 1st of each year.
- O 220 CMR 151.03(5). Should the Transportation Authority update the SSPP or PTASP outside the annual review cycle, either upon its own initiative or upon the written request of the Department for modifications to the SSPP or PTASP, the Transportation Authority shall submit a revised SSPP or PTASP to the Department. The SSPP or PTASP should be submitted in electronic format via email to the Program Manager within 30 calendar days of the event requiring the changes. Supporting procedures and referenced materials may be submitted in hard copy, by fax, mail, email, or in-hand delivery.

# • 220 CMR 151.10: Management and Oversight Process

- (1) Review and Approval. The Department shall review and approve initial and revised PTASPs and annual reports on the internal safety audit process.
- (a) The Department will review only final documents bearing the required signatures of the Transportation Authority's management. After approval, the Department will issue a formal letter of approval to the Transportation Authority, which will include the checklist used to conduct the review.
- (b) Upon receipt of the final document from the Transportation Authority, the Department has 15 days in which to review and approve it in writing. If the Department rejects the document, the Transportation Authority has 20 days from notice of rejection to submit a revised document to the Department for approval. The Department may grant an extension beyond the 20 days for good cause shown.
- (c) If the Department is unable to approve a final document, or to resolve a dispute with the Transportation Authority resulting from the development of the document, the Department must either:
- 1. Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved;



- 2. Develop its own document according to the requirements of the relevant section, and submit it to the Transportation Authority for implementation; or
- 3. Issue any Order that it deems necessary.

#### III. GUIDANCE

On July 16, 2020, the DPU approved the MBTA's initial PTASP. Going forward, the RTSD will review and approve all changes that the MBTA makes to its PSTAP. MBTA may make changes to its PTASP:

- (1) during its required annual review of the PTASP on or before August 1 of each year; or
- (2) at any time throughout the year either upon its own initiative or upon the written request of the DPU.

The Federal Transit Administration ("FTA") provides SSOAs with a checklist and additional guidance which is attached as Appendix E.

#### IV. RESPONSIBILITIES

This procedure explains the RTSD's review and approval process and associated deadlines for all changes that the MBTA makes to the PTASP.

#### A. MBTA ANNUAL PTASP REVIEW

The MBTA must review the PTASP annually and complete the annual review of its PTASP for the previous calendar year by August 1. 220 CMR 151.03(4).<sup>5</sup>

MBTA must submit an updated PTASP, if any, to the RTSD by September 1 of each year for review and approval. 220 CMR 151.03(3). RTSD strongly recommends MBTA submit a final draft PTASP for review prior to submission to the MBTA Board for adoption.

In addition to the MBTA's annual review of the PTASP, each year as part of the annual certification of compliance report, MBTA must confirm that it has reviewed the PTASP. MBTA submits the annual certification report to the DPU by January 31. The DPU must certify compliance to FTA annually by March 15 via the FTA's State Safety Oversight Reporting ("SSOR") tool. The SSOR process is discussed in detail in SOG Section 4.2.



If MBTA determines that no updates to the PTASP are required, the MBTA shall notify the RTSD in writing before September 1 of each year. 220 CMR 151.03(4)

Upon receipt of the MBTA's reviewed and revised PTASP, the RTSD will review any revisions and approve or reject them. If RTSD approves the revisions, the RTSD Director will issue written approval of the PTASP to MBTA within fifteen (15) days of receiving it. If the RTSD rejects the revisions, the RTSD Director will issue a written rejection to the MBTA within 15 days of receiving it. Upon any rejection, MBTA has 20 days to submit a revised document. 220 CMR 151.10(1)(b).

#### B. MODIFICATIONS MADE OUTSIDE OF THE ANNUAL PTASP REVIEW

When MBTA modifies its PTASP outside its annual review, either upon its own initiative or upon the written request of the RTSD, MBTA will submit the modified PTASP to the RTSD within 30 calendar days of the event triggering the modification. The RTSD will review and approve as appropriate. 220 CMR 151.03 (5). The RTSD strongly recommends MBTA submit a final draft PTASP for review prior to submission to the MBTA Board for adoption.

Examples of an event that may necessitate a change to the PTASP include a change in law, the results of an investigation or audit, the existence of a hazard that is an imminent threat to public safety, or changing trends in safety data and information analysis. Depending on the severity of the event necessitating the change to the PTASP, the RTSD may exercise its discretion and direct MBTA to make a change to the PTASP to incorporate the modification during the MBTA's annual review, rather than within 30 calendar days of the event.

#### C. REVIEW AND APPROVAL PROCESS

MBTA must submit any changes in the PTSAP to the RTSD for approval. MBTA must submit the revised PTASP to the RTSD for review and approval before MBTA implements any changes. 220 CMR 151.03(3).

The MBTA's PTSAP submission should include a summary that identifies and explains the proposed changes to the PTASP. In addition, all operating rules, procedures, and materials referenced in the MBTA's PTASP should also be provided to the RTSD with the revised PTASP to ensure that the RTSD can conduct an efficient and complete review of the proposed changes to the PTASP and their overall effect on the MBTA's safety program.



RTSD staff will use the PTASP Checklist provided by the FTA (Appendix E) to determine if the proposed change meets the federal and state program requirements. RTSD staff will submit to the RTSD Director the following:

- the MBTA's revised PTASP;
- a summary of their analysis; and
- the completed checklist.

If RTSD staff determines that the proposed change to the PTASP is not in compliance with federal and state program requirements, the RTSD Director will provide MBTA with the checklist and comments and negotiate appropriate modifications to the PTASP. At this point, the RTSD Director should schedule a meeting with MBTA to review and discuss the non-compliant aspects of the PTASP, come to an understanding with MBTA about necessary changes, and negotiate the timing of MBTA's further modifications to the PTASP.

Once the RTSD Director determines that the amended PTASP is ready for approval, the RTSD Director will inform MBTA of its preliminary approval in writing and provide a copy of the checklist that the RTSD used for the review.

After the RTSD Director's preliminary approval, MBTA must finalize the revised PTASP with appropriate signatures and transmittal letter, including approval by the MBTA Board of Directors (or equivalent) and submit the final, signed PTASP to the SSOA program for final approval.<sup>6</sup> The RTSD Director will review the submission to ensure that MBTA did not make any additional revisions to the PTASP (ensure the language matches what was agreed upon with the MBTA). The RTSD Director will issue a letter to MBTA acknowledging receipt of the signed final approved PTASP.

As a final step, RTSD staff must ensure that all documents are saved together in the SharePoint folder dedicated to MBTA Safety Plans, including:

- communications (all relevant emails and meeting notes) with MBTA;
- the final, signed PTASP; and
- the checklist completed by staff.

### **Additional Documents**

• Appendix E PTASP Review Checklist (with FTA Guidance)

For further information regarding MBTA's internal review process for the PTASP, see MBTA's Transit Safety Plan, Section 1.



# **Updates:**

March 24, 2021 – initial release

March 24, 2025 – revised



Section 3.2 – MBTA Minimum Standards for Safety		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.01(4); 220 CMR 151.10(5)	
Reference		
Federal Regulation	49 C.F.R. Part 673; 49 C.F.R. Part 674	
Reference		

#### I. PURPOSE

Minimum Standards for Safety ("MSS") are documents referenced in the Massachusetts Bay Transportation Authority's ("MBTA") Public Transit Agency Safety Plan ("PTASP") or are otherwise a part of the MBTA's Safety Program. MSS are essential to the Department of Public Utilities' ("DPU") State Safety Oversight ("SSO") program because they: (1) provide the Rail Transit Safety Division ("RTSD") with an essential body of knowledge regarding the MBTA's rules for safety and help RTSD to understand its safety culture; (2) establish the rules by which RTSD can evaluate or analyze Accident and Investigation reports, corrective action plans ("CAPs"), and internal audit reports (by knowing the safety rules, RTSD is able to understand and evaluate potential noncompliance); and (3) are a source of standards that RTSD can use to develop Safety Risk Management Monitoring activities.

#### II. REQUIREMENT

Please note that the terms *rail transit agency* ("RTA") and *transportation authority* as used below each refer to MBTA. Also, note that the term *Department* as used below refers to DPU.

**220** CMR 151.01(4): Pursuant to 49 C.F.R. Part 674, the Department is responsible for establishing minimum standards for rail safety practices and procedures to be used by the Transportation Authority. The Department's program standard is consistent with the National Public Transportation Safety Plan, the Public Transportation Safety Certification Training Program, and the rules for Public Transportation Agency Safety Plans. In addition, the Department must oversee the execution of these practices and procedures to ensure compliance with the provisions of 49 C.F.R. Part 674.

**220 CMR 151.10(5):** Department Access to Information. The Rail Transit Authority shall grant the Department access to information necessary to discharge the requirements set forth in the Program Standard, including, but not limited to:

- (a) Reports generated and databases utilized to monitor the status and performance of the Rail Transit Authority 's rail transit system;
- (b) All approved policies, procedures, directives, system element descriptions (general and technical), or documents that support the [System Safety Program Plan] SSPP or PTASP;
- (c) The Transportation All-Page System;



- (d) The Operations Control Center Log; and
- (e) Maintenance Databases.

### III. GUIDANCE

MSS, as used in the Program Standard, are safety-related standards implemented and documented by MBTA that govern the safe operations, command and control, and inspection and maintenance of the rail transit system, including facilities, infrastructure, and rail-related vehicles. These safety-related standards largely already exist at MBTA; however, experience from accident investigations and audits may indicate a need to update or develop new safety standards for MBTA. The MBTA's safety program requires that any changes to the MSS be tracked, reviewed, and approved by RTSD when changes are made.

In addition, the MBTA's safety standards should be based on existing transit industry standards (such as from the American Public Transportation Association ("APTA"), National Fire Protection Association, American Railway Engineering and Maintenance of Way Association ("AREMA"), etc.) that have been customized for rail transit agency equipment, infrastructure, and operations. The existing transit industry-related standards also need to be checked for updates, which should be integrated into the existing MSS documents.

As of January 2024, the following is a list of the MBTA's MSS that RTSD will review and approve:

- Transit Safety Plan (MBTA's PTASP);
- Safety Event Investigation Manual;
- Safety and Security Certification Program ("SSCP"); and
- Rules within the Safety track of MBTA's progressive discipline policy.

The RTSD may identify additional MSS Documents<sup>7</sup> for which MBTA must provide the RTSD an opportunity to review and comment prior to implementation. If the RTSD determines it is necessary to establish a minimum standard to improve safety, the DPU reviews, develops, adopts, or revises any practices used by any standard-setting organizations. This includes, but is not limited to, the U.S. Department of Transportation, the American Public Transportation Association ("APTA"), or any other organization that is relevant to the standard under development. In the absence, deficiency, or inapplicability of other standards, the DPU may develop, review, adopt, and revise its own standards.

Under 49 C.F.R. 671, MBTA is required to develop and implement a Roadway Worker Protection Program and accompanying Manual by December 2, 2025. Once the Roadway Worker Protection Manual is approved, it will be included on the list of MSS Documents.



If DPU is developing or reviewing an MSS, DPU will inform MBTA and schedule a meeting with MBTA to discuss the proposed standard before or during MBTA's review period. Prior to the adoption of any standard, MBTA will be given 30 days to review and comment on any technical concerns related to that proposed standard, including the proposed future effective date. DPU will review any technical concerns provided by MBTA and, as appropriate, DPU will incorporate revisions based on those comments received. DPU will then issue the standard with a specific effective date.

#### IV. RESPONSIBILITIES

The Program Standard requires direct access to these MSS documents. Some documents, like the PTASP, require DPU review and approval. Changes to the MSS at MBTA should be based on its experience, investigations, audits, and/or transit industry experience and best practices. Any new or updated documentation within the list of MSS will be mutually agreed upon with DPU through discussions and/or based on corrective actions that are reviewed and approved by DPU.

DPU will have these documents on file in SharePoint or otherwise have access to them as needed. For example, if MBTA posts a safety standard online, MBTA should provide a copy in advance to the RTSD Director, and RTSD staff should be aware of the new standard and its location on SharePoint or other data platform. It is imperative that MBTA share all new or updated minimum standards with DPU as they are developed before implementation. Annually, RTSD staff should review the list of standards and determine whether we have copies of or access to the current copy of each standard.

#### **Updates:**

March 24, 2025 – initial release



Section 4.2 – SSOR System and Annual Submission		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	CMR 151.10(3)	
Reference		
Federal Regulation	49 C.F.R. 674.39	
Reference		

#### I. PURPOSE

The State Safety Oversight Reporting system ("SSOR") is the web-based tool for submitting and tracking transit safety data to the Federal Transit Administration ("FTA"). State Safety Oversight Agencies ("SSOA") are the primary users of SSOR. The Department of Public Utilities ("DPU"), as Massachusetts' SSOA, must make an annual submission using the SSOR to comply with 49 C.F.R. Part 674.39, which states that safety data "must be submitted electronically through a reporting system specified by FTA."

An annual submission is due to FTA on or before March 15th of each year, unless otherwise directed by the FTA. The annual submission becomes a publicly available report summarizing the SSOA's activities for the preceding twelve months, and includes:

- The SSOA program standard in accordance with 49 C.F.R. Part 674.27;
- Causal factors for accidents identified through investigation;
- Status of corrective actions;
- Changes to the PTASP, and evidence of reviewing and approving the PTASP;
- A summary of any triennial audits completed during the preceding twelve months and CAPs arising from the triennial audit;
- Evidence that each SSOA employee and contractor has completed the requirements of the Public Transportation Safety Certification Training Program, or, if in progress, the anticipated completion date of the training; and
- A certification that the SSOA is in compliance with the requirements of 49 C.F.R. Part 674.39.

This procedure outlines the requirements and process for filing the FTA Annual Submission using the SSOR.

#### II. REQUIREMENTS

Please note that the terms *rail transit agency* ("RTA"), and *transportation authority* as used below each refer to the Massachusetts Bay Transportation Authority ("MBTA"). Also, note that the terms SSOA and *Department* as used below each refer to DPU.



Annual reporting is required by 49 C.F.R. Part 674.39 and codified in the DPU Program Standard at 220 CMR 151.10(3). All SSOAs were required to submit data to FTA using SSOR starting in the 2020 reporting year.

#### § 674.39 State Safety Oversight Agency annual reporting to FTA.

- (a) On or before March 15 of each year, an SSOA must submit the following material to FTA:
  - (1) The SSO program standard adopted in accordance with § 674.27, with an indication of any changes to the SSO program standard during the preceding twelve months;
  - (2) Evidence that its designated personnel have completed the requirements of the Public Transportation Safety Certification Training Program, or, if in progress, the anticipated completion date of the training;
  - (3) A publicly available report that summarizes its oversight activities for the preceding twelve months, describes the causal factors of safety events identified through investigation, and identifies the status of corrective actions, changes to Public Transportation Agency Safety Plans, and the level of effort by the SSOA in carrying out its oversight activities;
  - (4) Final investigation reports for all safety events meeting one or more of the criteria specified at § 674.33;
  - (5) A summary of the internal safety reviews conducted by RTAs during the previous twelve months, and the RTA's progress in carrying out CAPs arising under § 674.37(a)(3);
  - (6) A summary of the triennial audits completed during the preceding twelve months, and the RTAs' progress in carrying out CAPs arising from triennial audits conducted in accordance with § 674.31;
  - (7) Evidence that the SSOA has reviewed and approved any changes to the Public Transportation Agency Safety Plans during the preceding twelve months; and
  - (8) A certification that the SSOA is in compliance with the requirements of this part.
- (b) These materials must be submitted electronically through a reporting system specified by FTA.

## 220 CMR 151.10(3) Reporting Requirements to FTA.

- (a) <u>Annual Submission</u>. Before March 15<sup>th</sup> of each year, the Department must submit the following material to the FTA:
  - 1. The Department program standard, and supporting procedures, approved in accordance with 49 C.F.R. Part 674.27, with an indication of any changes to the Department program standard during the preceding 12 months;



- 2. Evidence that each of its employees and contractors has completed the requirements of the Public Transportation Safety Certification Training Program, or, if in progress, the anticipated completion date of the training;
- 3. A publicly available report that summarizes its oversight activities for the preceding 12 months, describes the causal factors of accidents identified through investigation, and identifies the status of corrective actions, changes to PTASPs, and the level of effort by the Department in carrying out its oversight activities;
- 4. A summary of the triennial audits completed during the preceding 12 months, and the Transportation Authority's progress in carrying out CAPs arising from triennial audits conducted in accordance with 49 C.F.R. Part 674.31;
- 5. Evidence that the Department has reviewed and approved any changes to the PTASPs during the preceding 12 months; and
- 6. A certification that the Department is in compliance with the requirements of 49 C.F.R. Part 674.39
- (b) The Department must make periodic submissions to the FTA upon its request.
- (c) The Department must submit all filings to the FTA electronically using a reporting system specified by FTA.
- (d) The Department must maintain a signed copy of each annual certification to FTA, subject to audit by FTA.

#### III. RESPONSIBILITIES

The **Director** of DPU's Rail Transit Safety Division ("RTSD") is responsible for the review and final approval of information and data being provided to the FTA in the annual submission.

The RTSD Leadership comprises the RTSD Director, Assistant Director Compliance and Engineering, Assistant Director Safety Assurance, and Assistant General Counsel.

RTSD Staff are responsible for compiling and submitting all required information for the submission using the reporting system (SSOR) specified by the FTA. Staff may be designated by RTSD Leadership to coordinate any meetings and correspondence with the MBTA to reconcile and ensure accuracy of information and data being submitted (See Reconciliation Process below).

**MBTA**, specifically MBTA Safety Division, is responsible for providing any information requested by the DPU, as well as attending data reconciliation meetings. MBTA is also responsible for reporting any Major and Non-Major events into the National Transit Database ("NTD").



#### A. RECONCILIATION PROCESS

The DPU stores data in SMART, the DPU's SSO management application and connected database. SMART contains data on reportable events, rail safety incident investigations, CAPs, and other vital oversight material. The MBTA stores data in Origami Risk, its safety reporting system, and has provided access to the DPU. The MBTA enters data into the NTD monthly, and any event that meets a reportable FTA threshold is automatically populated into the SSOR.

#### The main sources for data to be reconciled are:

DPU Data:

• SMART, DPU's SSO management application

FTA Data:

SSOR

MBTA Data:

Origami Risk, MBTA's safety reporting system

### The steps for reconciling the data are as follows:

- 1. Reportable events captured in SMART are reviewed against the SSOR.
  - a. If SMART data conflicts with the SSOR, MBTA Final Investigation Reports in Origami Risk are utilized to verify information.
  - b. If the SSOR information appears to conflict with the supporting information in the MBTA Final Investigation Reports in Origami Risk, an email is sent to the MBTA as a request to reconcile the information.
  - c. If the SSOR information appears to match the supporting information, the information is changed in SMART.
- 2. Once the information has been verified in the SSOR, the data can be validated.

#### B. TIMELINE FOR ANNUAL SUBMISSION

DPU may begin entering data for the reporting year at any time, but the annual submission may be submitted as early as January 1 and is ultimately due to the FTA on or before March 15 (unless otherwise specified by the FTA). DPU has established a quarterly meeting to regularly review discrepancies in data throughout the year. The below figure provides an overview of the SSOR process or stages; from data entry to acceptance by FTA, is seen in the latest 2023 SSOR SSOA Annual Report Usual Manual v5.0.



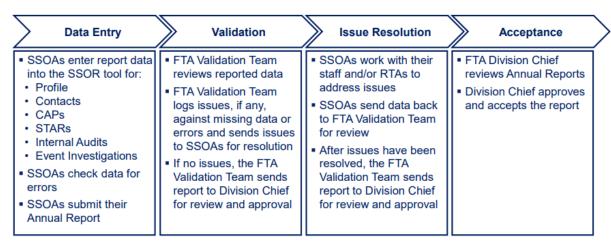


Figure 1. SSOR Process - Data Entry (2023 SSOR SSOA Annual Report User Manual v5.0)

#### C. PREPARING DATA FOR SUBMISSION

The following are the data to be reviewed and de-identified:

Events and data – all personal information (such as names, employment identification numbers, and other identifying information) should be removed and only a summary of the investigation detail should be provided to FTA. An individual's name identified in the report should be changed to Operator, Supervisor, Maintainer, Contractor, Passenger/Patron, Pedestrian, Bicycle Operator, or other, as appropriate. A short description of the investigation should provide enough information for FTA to understand the event. All information provided in FTA's data collection tool should follow FTA's code requirements.

Additionally, each DPU RTSD employee is required to submit a digital form that documents each risk monitoring activity they conduct. This data is compiled into the monthly status report. At the conclusion of the calendar year, this data will be compiled and used to complete the annual report. Events data is kept in the Investigations tracker and reconciled through the FTA SSOR Reconciliation Spreadsheet that is updated on a quarterly basis.

Corrective actions – all corrective actions provided to FTA should also be de-identified for individuals, as described for investigations. This information is maintained in the DPU database and in the Corrective Action Plan ("CAP") Tracking Spreadsheet. The CAP Tracking Spreadsheet tracks open CAPs, the source, implementation date, and responsible person.

**Triennial reviews/audits** – The triennial audit report will be provided to the FTA.



## D. REPORTING REQUIREMENTS & MATERIALS FOR SSOR ANNUAL SUBMISSION

# 1. Profile

- a. SSOA Authority: Check the box for each identified authority to report your agency's existing authority over each Rail Fixed Guideway Public Transportation System ("RFGPTS")
- b. Internal SSOA Coordination: Report the frequency of how often the SSOA Program Manager briefed his, her, or their supervisor and Executive Management regarding the SSO Program in the calendar year by selecting an option from the drop-down menus for each Coordination Data field
- c. Coordination with RFGPTS
  - For each overseen RFGPTS, provide the following:
    - 1) The number of on-site meetings SSOA staff attended at the RFGPTS
    - 2) The number of other field visits SSOA staff made
    - 3) The number of meetings between SSOA staff and RFGPTS Executive Leadership in the reporting year

### 2. Contacts

	SSOA Requirements		
D	ata Domain	Requirement	
1	SSOA Primary	This is the SSOA Program Manager or the primary reporter and contact for all SSOA-related correspondence	
2	SSOA Alternate	This is the individual(s) responsible for correspondence and SSOA- related activities in the absence of the SSOA Program Manager	
3	First Year in SSO Program	This is the calendar year a contact began working in the SSO Program	
4	SSOA Hours Worked	Enter the hours worked on the program by the SSOA Program Manager and any other SSOA employees. The total hours will allow FTA to calculate the number of full-time equivalents (FTE) assigned to the program    Note: For employees dedicated full-time to the SSO Program, report 2,000 hours. 1 FTE = 2,000 hours	
5	Difference in SSOA Hours	<ul> <li>Whether the hours the SSOA staff worked increased or decreased from the previous year</li> <li>The system will calculate whether the hours have increased, decreased, or remained the same and display an up or down arrow next to the number of hours to denote any changes as appropriate</li> </ul>	



	SSOA Requirements			
6	Contractors Duties	<ul> <li>If contractors were used for any safety oversight activities, document what duties they performed by selecting a duty from the drop-down menu</li> <li>For duties not identified in the drop-down list, please provide a description</li> </ul>		
7	Contractor Hours	Enter the number of hours contracted for safety oversight activities for the calendar year		
8	Contractor Costs	Enter the total funds paid to contractors for their safety oversight duties during the calendar year		
9	Difference in Cost	<ul> <li>Whether the cost of the SOA contractors increased or decreased from the previous year</li> <li>The system will calculate whether the costs have increased, decreased, or remained the same and display an up or down arrow next to the number to denote any changes as appropriate</li> </ul>		

### 3. CAPs

The SSOAs must report all CAPs developed during the reporting year as well as any from previous years that remain open. Enter all relevant information as required as well as the source from which you generated the CAP. This information can be derived from the DPU database and CAP Tracking Spreadsheet.

- a. The CAP can be created from any of the following sources:
  - i. Event Investigation: the occurrence and investigation of an accident as reported in NTD;
  - ii. Inspection (announced and unannounced);
  - iii. Internal Safety Audit Programs ("ISAP") conducted by RTAs (see Internal Audits);
  - iv. SMS Assessments;
  - v. SSO Triennial Audit of RTAs (Safety Triennial Audit Reports ("STARs")); and
  - vi. Other: describe in Other Description field within SSOR.
- b. Required data needed to populate CAPs:
  - i. Agency;
  - ii. Source Type;
  - iii. Agency Internal CAP Identifier;
  - iv. CAP Approval Date;
  - v. CAP Document (Upload document);
  - vi. Action;
  - vii. Department;



- viii. Individual;
- ix. Proposed Implementation Date;
- x. Proposed Date Change Log;
- xi. Actual Implementation Date;
- xii. Whether Implementation was Verified; and
- xiii. Issues Preventing Resolution.

	CAP Requirements			
	Requirement	Description		
1	SSOA Internal accident ID Number	If the CAP was developed because of an incident investigation, provide the number or code that the SSOA uses to track the incident		
2	Identified Action	49 C.F.R. Part 674.39 requires all CAPs to include the identified corrective action		
3	SSOA Approved	49 C.F.R. Part 674.39 requires the SSOA to review and approve each CAP; indicate whether the CAP was approved		
4	Proposed and Actual Implementation Date	49 C.F.R. Part 674.39 requires all corrective action plans to include the schedule for implementation; please include the dates		
5	Individual Responsible for Implementation	Name the person (or contractor organization, if applicable) responsible for implementing the CAP action as required by 49 C.F.R. Part 674.39		
6	Department Responsible	Identify the agency department responsible for CAP action implementation by the scheduled date		
7	CAP Status	SSOAs are required to monitor and track the status of CAP implementation to completion for each approved CAP		
8	Implementation Verified	RTAs must provide the SSOA with verification that the CAP Action has been implemented as described in the CAP, or that a proposed alternate action has been implemented, subject to SSOA review and approval		
9	Issues Preventing Resolution	For CAPs that have not been closed, SSOAs must report the reason(s) or issue(s) that prevented the RTAs from completing the implementation actions and closing the CAP		

# 4. SSO Triennial Audit of RTAs

DPU must report all of its Triennial Audits, or STAR, of the MBTA conducted during the reporting year; and enter all relevant information as required.



	STAR Requirements		
	Requirement	Description	
1	RTA	Select the RTA being audited	
2	Audit Type	Choose if the STAR is a Safety or Security audit.	
3	Agency Internal Safety Review Identifier	The unique number or code that the SSOA uses to track each Internal Safety Review as part of its internal tracking system.	
4	Date Started	Provide the start date of the STAR.	
5	Data Concluded	Provide the conclusion date of the STAR.	
6.	Next Audit Date	Provide the date of the next SSOA onsite review.	
7.	Report Document	49 C.F.R. Part 674.31 requires the SSOA to provide a report with findings and recommendations from the audit, which must include, at minimum, an analysis of the effectiveness of the Public Transportation Agency Safety Plan, recommendations for improvements, and any corrective action plans, if necessary or appropriate.	
8	Final Report Date	49 C.F.R. Part 674.39 requires the SSOA to prepare a report documenting its findings and recommendations from the review. Provide the date of the report.	
9	Contractor(s) Used	Select any SSOA Contractors from the current Annual Report used during the audit.	
10	Report Issues?	Select if Issues were found during the STAR.	
11	Number of Findings	The number of findings if issues were found during the audit.	

# 5. RTA Internal Audits

49 C.F.R. Part 674.39 does not require the MBTA to report on internal audits. However, since the DPU as SSOA can generate CAPs based on internal audits, it is necessary for DPU enter the internal audit data in the SSOR system and link it to the appropriate CAP. Therefore, include all internal audit information to allow this data correlation.



#### 6. Events

Under 49 C.F.R. Part 674.33, all accidents that meet at least one of the predetermined thresholds must be reported by the MBTA to the NTD. These events are automatically populated into the SSOR. The tables below provide information on the different types of events that occur, the thresholds for reporting, and descriptions of relevant classifications pertaining to event types and threshold requirements.

The Events page in SSOR makes up a significant portion of the annual report. The figure below provides a visualization of the events reporting process. When an accident occurs, the MBTA is required to notify the DPU and FTA of the accident within two hours. The MBTA reports all accident data into NTD.

- Upon reporting the data to the NTD, the NTD pushes the data to SSOR through an integration that allows data sharing between the systems.
- Once NTD loads event data to SSOR, DPU can enter accident investigation details for the respective records in SSOR. For information regarding investigations, please see SOG Section 5.1.
- Then, once the event reports are submitted for review and acceptance, the system checks the data for discrepancies.
- Next, the data is subjected to a two-tier review process whereby the FTA Validation Team reviews and validates the data.
- If the Validation Team finds any errors, they may log errors in the system and tag the RTSD Director in a comment to address the data issue.
  - At this point, the DPU must contact the MBTA to address the data error. All
    accident data errors must be updated in NTD. Once the MBTA updates the
    erroneous data in NTD, NTD pushes the update to SSOR, and the FTA Validation
    Team can review and validate the data again.
- Once all data issues have been resolved and the validation passes for all data fields, the FTA Validation Team sends the final report to the FTA Program Manager for review.
- At this point, the FTA Program Manager will either accept or reject the report. Acceptance of the final report completes the process.

Probable cause of the event must be reported along with all other accident investigation data. The probable cause of an event can be found inside the final report and should be reconciled against the data in the DPU database.

		Data Field	Data Field Description
	1	Equipment Failure	System component Failure
	2	Poor Maintenance	System is not properly maintained



3	Operating Rule Violation /	Employee error or organizational issue
	Human Factor	
4	Slips and Falls	Slips and falls in station or vehicle
5	Imprudent Patrons Actions	Inappropriate patron or passenger behavior on vehicles or in stations
6	Medically Related	Illness, heart attacks, found deceased
7	Action of Motorist	Non-transit auto driver at fault
8	Pedestrian Actions	Pedestrian is at fault
9	Trespasser	Trespasser action
10	Suicide	Suicides and suicide attempts.
11	Other/TBD	Acts of Nature / Unknown

#### 7. Issues

When the RTSD Director or designee submits data for review, the FTA Validation Team has an opportunity to log issues with the data in the system. For example, there may be discrepancies between what is in the NTD database for an event and the data that is entered into SSOR. The DPU can create an issue to be addressed with the data at a later date before the annual report is submitted. Please note that you must resolve all data issues before you can submit the annual report for validation and approval. If you fail to do so, the SSOR system will not allow you to submit the report to the FTA.

### 8. Required Documents

The documents listed below are uploaded directly into the SSOR.

	SSOA Documents and Requirements		
	Document	Requirement	
1	Program Standards and Procedures	Submit annually	
2	Annual Certification of Compliance	Submit annually	
3	Organizational Chart	Submit annually	
4	SSOA Accident Investigation Procedures	Submit annually, if SSOA maintains its own procedures	



5	Technical Training Plan	Submit annually
6	Accident Investigation Procedures	Submit annually
7	Program Procedures	Submit annually, if maintained in a separate document

# **Additional Documents**

# **Updates:**

June 15, 2021 – Initial Release

March 24, 2025 – revised



Section 5.1 Notifications and Investigations		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.08 Department Notification	
Reference	220 CMR 151.09 Accident Notification and Investigation	
	220 CMR 151.06 Hazard Management Process	
Federal Regulation	49 CFR § 674.27(a)(6): Accident Notification	
Reference	49 CFR § 674.27(a)(7): Investigations	
	49 CFR Part 674.33 Notifications of Accidents	
	49 CFR Part 674.25(e) and (f) Role of the State safety oversight	
	agency	
	49 CFR Part 674.35 Investigations	

### I. PURPOSE

Section 5.1 describes the processes for required communications between the DPU State Safety Oversight ("SSO") program (or "DPU") and the Massachusetts Bay Transportation Authority ("MBTA"). Further, Section 5.1 describes communications concerning DPU investigation activities, independent reviews of MBTA investigation reports, and DPU's approval of MBTA investigation reports.

The objective of this section is to ensure the DPU's compliance with federal requirements pertaining to accidents and safety events. The section lays out the timing and delivery of notifications from MBTA, as well as the information that MBTA submits to DPU. Additionally, this section outlines DPU's procedures and responsibilities when responding to a safety event.

#### II. REQUIREMENTS

The procedure contained in Section 5.1 is required based on 49 C.F.R. § 674 ("Part 674") and is codified in 220 CMR 151.09. The relevant sections of Part 674 and 220 CMR 151 are reproduced below. Please note that the terms *rail fixed guideway public transportation system*, *rail transit agency* ("RTA"), and *transportation authority* as used below each refer to MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

#### 49 C.F.R. Part 674.33 Notifications of safety events.

- (a) An RTA must notify FTA and the SSOA within two hours of any safety event occurring on a rail fixed guideway public transportation system that results in one or more of the following:
  - (1) Fatality



- (2) Two or more injuries
- (3) Derailment
- (4) Collision resulting in one or more injuries
- (5) Collision between two rail transit vehicles
- (6) Collision resulting in disabling damage to a rail transit vehicle
- (7) Evacuation for life safety reasons
- (8) Unintended train movement.
- (b) The two-hour notification requirement excludes criminal actions that result in fatalities or injuries, such as homicides and assaults.

# 49 C.F.R. Part 674.25 Role of the State safety oversight agency.

- (e) An SSOA has primary responsibility for the investigation of any allegation of noncompliance with a Public Transportation Agency Safety Plan. These responsibilities do not preclude the Administrator from exercising their authority under 49 U.S.C. § 5329(f).
- (f) An SSOA has primary responsibility for the investigation of a safety event on a rail fixed guideway public transportation system. This responsibility does not preclude the Administrator from exercising their authority under 49 U.S.C. § 5329(f).

#### 49 C.F.R. Part 674.27 State safety oversight program standards.

- a) An SSOA must adopt and distribute a written SSO program standard, consistent with the National Public Transportation Safety Plan and the rules for Public Transportation Agency Safety Plans. This SSO program standard must identify the processes and procedures that govern the activities of the SSOA. Also, the SSO program standard must identify the processes and procedures an RTA must have in place to comply with the standard. At minimum, the program standard must meet the following requirements:

  [(a)(1)-(5), (8) and (b) intentionally omitted (covered in other SOG sections)]

  (9) Safety event notifications. The SSO program standard must establish requirements for RTA notifications of safety events occurring on the RTA's rail fixed guideway public transportation system, including notifications to the SSOA and to FTA. SSOA safety event notification requirements must address, specifically, the time limits for notification, methods of notification, and the nature of the information the RTA must submit to the SSOA.
  - (10) *Investigations*. The SSO program standard must identify safety events that require an RTA to conduct an investigation. Also, the program standard must address how the SSOA will oversee an RTA's own internal investigation; the role of the SSOA in supporting any investigation conducted or findings and recommendations made by the



NTSB or FTA; and procedures for protecting the confidentiality of the investigation reports.

#### 49 C.F.R. Part 674.35 Investigations.

- (a) An SSOA must investigate or require an investigation of any safety event that requires notification under § 674.33.
- (b) The SSOA is ultimately responsible for the sufficiency and thoroughness of all investigations, whether conducted by the SSOA or RTA. If an SSOA requires an RTA to investigate a safety event, the SSOA must conduct an independent review of the RTA's findings of causation. In any instance in which an RTA is conducting its own internal investigation of the safety event, the SSOA and the RTA must coordinate their investigations in accordance with the SSO program standard and any agreements in effect.
- (c) Within a reasonable time, an SSOA must issue a written report on its investigation of a safety event or review of an RTA's safety event investigation in accordance with the reporting requirements established by the SSOA. The report must describe the investigation activities; identify the factors that caused or contributed to the safety event; and set forth a corrective action plan, as necessary or appropriate. The SSOA must formally adopt the report of a safety event and transmit that report to the RTA for review and concurrence. If the RTA does not concur with an SSOA's report, the SSOA may allow the RTA to submit a written dissent from the report, which may be included in the report, at the discretion of the SSOA.
- (d) All personnel and contractors that conduct investigations on behalf of an SSOA must be trained to perform their functions in accordance with the Public Transportation Safety Certification Training Program.
- (e) The Administrator may conduct an independent investigation of any safety event or an independent review of an SSOA's or an RTA's findings of causation of a safety event.

# 220 CMR 151.08: Department Notification

- (1) When notice to the Department is required pursuant to 220 CMR 151.00, the Transportation Authority shall notify the Department by first contacting the Department representative assigned to the Transportation Authority as prescribed by the Department. Alternatively, the Transportation Authority shall notify the Program Manager. The Transportation Authority shall maintain current contact information for these primary and alternative points-of-contact.
- (2) Written notice to the Department of a hazard, accident, or similar event, to the extent possible under the circumstances, shall include, but not be limited to:
  - (a) Name and Title of person reporting
  - (b) Event type
  - (c) Location, time, and date of event
  - (d) Fatalities



- (e) Injuries
- (f) Rail transit vehicle(s) involved (type, number)
- (g) Other vehicle(s) involved (type, number)
- (h) Property damage estimate
- (i) NTSB reportable
- (j) FTA reportable
- (k) Rail transit agency primary person (i.e., Chief Investigator) conducting the investigation (name, title, phone and fax numbers, email address)
- (1) Description of the event
- (m)Immediately implemented and/or planned corrective actions
- (n) Name and telephone number of a person from whom additional information may be obtained
- (o) Method and time of notice to the Department.

# 220 CMR 151.09 Accident Notification and Investigation

- (1) The Transportation Authority shall notify the Department and the FTA within two hours of, and in writing by the close of business on the next business day following, any incident involving a rail transit vehicle or taking place on rail transit-controlled property where one or more of the following occur ("Accident Notification"):
  - (a) Fatality at the scene or occurring within 30 days following the accident
  - (b) One or more persons suffering Serious Injury
  - (c) Property [substantial] damage resulting from a collision involving a rail transit vehicle or the derailment of a rail transit vehicle
  - (d) Evacuation due to life safety reasons
  - (e) Derailment
  - (f) Collision with a person resulting in Serious Injury or fatality
  - (g) Collision between a rail transit vehicle and second rail transit vehicle or a rail transit non-revenue vehicle
  - (h) Collision at grade crossing resulting in Serious Injury or fatality
  - (i) Collision with an object resulting in Serious Injury or fatality
  - (j) Fires resulting in Serious Injury or fatality
- (2) The Transportation Authority shall investigate any incident requiring Accident Notification to the Department. The Department will provide, and the Transportation Authority will use a Department-approved investigation checklist form(s) as may be required by the Department for this investigation.
- (3) The investigation shall include the following:
  - (a) On-site inspection
  - (b) Visual examination and measurements
  - (c) Examination by the following methods and/or tests as necessary
    - i. Radiographic
    - ii. Ultrasonic
    - iii. Magnetic particle
    - iv. Liquid dye testing
  - (d) Functional testing of the following as necessary
    - i. Vehicle
    - ii. Track



- iii. Traction power
- iv. Signals
- v. Communication equipment
- (e) Interviews with witnesses
- (f) Review of maintenance records and procedures
- (g) Review of employee training and certification
- (h) Photographs
- (i) Police and coroner reports<sup>8</sup>
- (j) Review of alcohol and drug test results
- (k) Review of hours of service records
- (l) Review of operating rules and procedures
- (m) Identification of the factors that caused or contributed to the accident
- (n) Findings, recommendations, and a CAP, as necessary and appropriate, or as otherwise required by the Department.
- (4) The Department may conduct an independent investigation or oversee/monitor an investigation conducted by the Transportation Authority. The Transportation Authority shall provide to the Department, upon request, documentation, access to investigative sites, activities, and personnel involved in the investigative process. The Department and the Transportation Authority shall coordinate investigative activities prior to finalizing investigative reports.
- (5) The Transportation Authority shall submit to the Department a final report of its investigation within 60 days of the event triggering the Accident Notification. The Department shall approve the format and required contents for the final report.
- (6) In the event that the Transportation Authority does not complete a final report within 60 days of the event triggering the Accident Notification, it shall submit written status reports as requested by the Department until the final report is completed.
- (7) Upon receipt of the Transportation Authority's final report, the Department reviews and approves the report in writing. If the Department rejects the report, the Transportation Authority has 20 days from notice of rejection to submit a revised final report to the Department for approval. The Department may grant an extension beyond the 20 days for good cause shown.
- (8) If the Department is unable to approve a final report, or to resolve a dispute with the Transportation Authority resulting from the development of a final report, the Department must either:
  - (a) Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved; or
  - (b) Conduct its own investigation according to the requirements of 220 CMR 151.09, and submit the final report to the Transportation Authority for implementation, allowing the Transportation an opportunity to file a written dissent pursuant to the procedures outlined in the Standard Operating Guideline Manual; or
  - (c) Issue any Order that it deems necessary.

Massachusetts does not have coroners. Such report would be coming from the Office of the Chief Medical Examiner.



(9) The Department may withhold from public disclosure investigation reports prepared or approved by the Department whose release is likely to jeopardize public safety as contemplated in M.G.L.c.4, Section 7, clause Twenty-sixth(n).

# 220 CMR 151.06 Hazard Management Process

- (4) Hazard Notification
  - (a) The Transportation Authority shall notify the Department, at a minimum, of any condition meeting the two highest risk levels identified within the Risk Assessment Matrix.
  - (b) The Transportation Authority shall notify the Department within the time limit and in the format determined by the Department.
  - (c) After initial notification, the Department may require the Transportation Authority to conduct further activities to provide more detailed information, including conducting an investigation pursuant to 220 CMR 151.09(3) through (9).

### III. GUIDANCE

DPU provides safety oversight for one RTA, the MBTA's rail transit (subway) system. This part of MBTA consists of three heavy rail lines (Red, Orange, and Blue) and two light rail lines (Green branch lines and Mattapan). This section provides the processes for receiving safety event notifications and overseeing safety investigations and related reports. Information gathered during the notification and investigation process is directly fed into the MBTA's safety and risk management program and, in turn, becomes a critical part of DPU's risk-based inspection ("RBI") program. See SOG Section 5.8 for more information on the RBI program.

Five areas comprise the DPU SSO program notifications and investigations process and procedure:

# A. NOTIFICATIONS OF ACCIDENTS, OTHER SAFETY EVENTS, AND IDENTIFIED HAZARDS

- 1. Federal Transit Administration ("FTA") and DPU Safety Event Notifications
- 2. DPU State Reportable Event Notifications
- 3. Allegations of Non-Compliance with the MBTA's Public Transportation Agency Safety Plan ("PTASP")
- 4. Other Identified Hazards

### B. ON-SCENE INVESTIGATION ACTIVITIES (AS NECESSARY)

- 1. On-Scene Responders
- 2. Responding to Safety Events



- 3. Post-incident Hotwash
- 4. Ongoing investigation activities
- 5. Independent investigation review and approval
- 6. Required safety event documentation

# C. NOTIFICATIONS OF ACCIDENTS, OTHER SAFETY EVENTS, AND IDENTIFIED HAZARDS

The information below summarizes MBTA's reporting of accidents and other safety events to the FTA and DPU (state reportable) as required by applicable law.

#### 1. FTA ACCIDENT NOTIFICATION REQUIREMENTS

Part 674 establishes definitions and minimum notification thresholds for safety events. Part 674 defines safety events and requires a rail transit agency to notify its SSOA and FTA within two hours of any safety event listed below. <sup>9</sup>

# **Safety Events**

- Fatality
- Two or more injuries
- Derailment
- Collision causing one or more injuries
- Collision between two rail transit vehicles
- Collision resulting in disabling damage to a rail transit vehicle
- Evacuation for life safety reasons
- Unintended train movement

This two-hour notification requirement does not include criminal actions resulting in fatalities or injuries.

#### How the FTA is Notified

If there is an Accident, MBTA has established a procedure <sup>10</sup> for contacting the U.S. Department of Transportation Crisis Management Center ("CMC") by email within two hours of a reportable accident (FTA-recommended method) or by phone to the MBTA Operations Control Center

\_\_\_

<sup>&</sup>lt;sup>9</sup> Effective January 1, 2025.

MBTA Standard Operating Procedure ("SOP") 37: Notifications of Outside Agencies (Revision E, August 3, 2020).



("OCC"). OCC supervisors have primary responsibility to notify FTA and send notifications to CMC-01@dot.gov or 202-366-1638.

MBTA's OCC copies <u>DPU.Rail@mass.gov</u> on the notification to FTA so that DPU may verify that the two-hour notification has been made to FTA.

The two-hour notifications must include, at a minimum, these basic details:

- Location (<u>e.g.</u>, station name, milepost or chain marker, street address, yard name etc.);
- Primary and secondary event types (e.g., collision, derailment, fire, etc.);
- Number of fatalities; and
- Number of serious injuries (including type of injury, if known).

#### 2. DPU STATE REPORTABLE EVENT NOTIFICATIONS

State Reportable events are accidents, incidents, and occurrences identified by DPU that, through safety risk monitoring activities, analysis, and experience are considered likely to happen again and lead to significant failure if not addressed. The following safety events require a State Reportable Event Report and are tracked through closure by DPU.

# **State Reportable Events**

- Evacuation to the Right-of-Way ("ROW"), not life safety
- Evacuation of a Station Area, not life safety
- Split Switch or Significant Switch Damage from a Rail Vehicle
- Significant Overhead Catenary System ("OCS")/Pantograph Damage event that disrupts service for more 2 hours
- Significant Third Rail Damage event that disrupts service for more than 2 hours
- Near Miss such as Flagging, Work Zones, or any Worker on or near the ROW
- Hard Couple/Tack On
- Train Collision with Motor Vehicle/Work Equipment, Infrastructure, Not FTA Reportable
- Runaway Rail Vehicle, includes Work Equipment, Not FTA Reportable
- Any significant safety event determined by either the DPU or MBTA as needing investigation

#### How DPU is Notified

For each State Reportable event, the MBTA is required to notify DPU within two hours via the MBTA All Page system and in writing by close of business on the next business day. Notification is made via phone call by the MBTA All Page system and MBTA staff notify the



on-call DPU employee to call the OCC. Additional guidance on notification is covered in MBTA SOP 37. DPU extends oversight to hazards identified in MBTA's safety reporting system, not just to events. DPU updated the Preliminary Notification Form. By identifying the source of hazards entered into the safety reporting system (i.e., accident, staff observation, public complaint), DPU is able to track MBTA's compliance with its own plan.

#### 3. ALLEGATIONS OF NON-COMPLIANCE WITH THE PTASP

DPU has primary responsibility for the investigation of any allegation of non-compliance with the PTASP. If DPU receives an allegation of non-compliance with the PTASP, DPU requires MBTA to investigate the matter and submit a final investigation report to DPU for approval, unless the allegation implicates MBTA Safety.

The following are potential sources of allegations of rail property PTASP non-compliance:

- General Public, including complaints received via DPU's website
- Patrons and Riders
- Rail Property Employees, including the Employee Safety Reporting System
- Rail Property Safety Division
- SSO Program Employees
- FTA
- Others

### 4. OTHER IDENTIFIED HAZARDS

DPU requires MBTA to report all hazards identified with an inherent risk assessment in the Red or Orange categories of MBTA's Risk Assessment Matrix. MBTA notifies DPU automatically when MBTA enters the risk category into its hazard management system and as further described in MBTA's PTASP.

#### D. ON-SCENE INVESTIGATION ACTIVITIES

DPU requires MBTA to conduct investigations on its behalf. MBTA has developed standard investigation procedures, adopted and approved by DPU, to allow MBTA to complete these investigations and report its findings to DPU.

RTSD staff have the authority to oversee MBTA staff during all aspects of investigations, such as an on-scene response or records reviews. DPU also has the authority to oversee MBTA investigations by attending and observing all meetings of the investigation team and reviewing all versions of reports and briefs resulting from investigations. At a minimum, RTSD staff



respond to the following events and has the authority to observe any investigation and respond to safety events beyond this list.

- Derailment (yard/mainline);
- Collision (train-on-train or non-FTA reportable collisions involving work equipment or infrastructure);
- Runaway train or work equipment;
- Substantial or significant damage to a rail transit vehicle or equipment;
- Multiple injuries, one or more serious injuries, or one or more fatalities;
- Split switch or significant switch damage caused by a rail transit vehicle;
- Any disruption of service for more than two hours caused by significant damage to a power system;
- A recurring issue on any line or other event as indicated by the DPU Rail Transit Safety Division ("RTSD") Director; and
- Any incident that warrants the DPU SSO program presence at the scene as directed by the RTSD Director or designee (including, but not limited to, evacuations).

RTSD staff may provide advance notice to MBTA when DPU will attend any meeting or site visit related to an MBTA investigation for coordination purposes. As part of DPU's investigation delegation, DPU expects that MBTA will proactively notify DPU of all investigative actions that are scheduled as part of an investigation. RTSD staff may attend without notice.

#### 1. ON-SCENE RESPONDERS

#### On-Call Duty Investigator(s)

The RTSD staff who have minimum On-Call Duty training<sup>11</sup> rotate on a weekly basis. The schedule is maintained by DPU on a shared calendar posted to the RTSD shared drive. The On-Call Duty shift starts at 12:00 AM on a Monday and runs through 11:59 PM on Sunday.

The On-Call staff who responds to the safety event is usually the investigator responsible for the on-scene response and overseeing MBTA's on-scene investigation into that event. A Supervisory Investigator may be designated by the RTSD Director to oversee and support the field staff along with additional resources as needed. The On-Call Investigator may mobilize additional DPU resources to support the investigation. Requests for such additional mobilizations are to be made to the RTSD Director, and Assistant Director of Compliance and Engineering, for coordination.

Minimum On-Call Duty Training is defined in SOG Section 2.2: DPU Training Plan.



#### 2. RESPONDING TO SAFETY EVENTS

The DPU Investigator(s) follows these steps when responding to a safety event.

- 1. Upon receiving the notification from MBTA (via direct page or All Page), the DPU Investigator evaluates the type of safety event and determines if responding to the scene is appropriate. The DPU Investigator should consult with the Assistant Director if there is uncertainty about whether to attend the scene.
- 2. If responding to the scene is unnecessary, the DPU Investigator shall proceed to the section below entitled "Ongoing Investigation Activities." If the Investigator responds to the scene, proceed by following the steps below:
- 3. Notify the OCC Supervisor at 617-222-5777.
- 4. Travel to the scene of the safety event.
- 5. Notify the OCC Supervisor by phone that you are on the scene.
- 6. Arrange access to the scene with the OCC Supervisor, if necessary.
- 7. Identify the MBTA official in charge of the scene (if Incident Command is established at the scene, locate the official and identify yourself as an employee of the DPU SSO program).
- 8. The person in charge or the MBTA lead investigator will likely brief you.
- 9. Identify persons conducting the investigation and oversee the investigation.
- 10. If there is a field team meeting, you shall attend.
- 11. Establish an information exchange process with MBTA personnel, as needed.
- 12. When and if time permits, provide brief update to the RTSD Director or Assistant Director by phone, text, or email.

The DPU Investigator(s) must be fully prepared to perform these duties and have the following items available the entire shift:

- Vehicle with gas-filled tank or fully charged electric vehicle (personal or DPU RTSD vehicle);
- Fully charged radio;
- A method for taking notes (e.g., writing instruments, notepad, or electronic device);
- The appropriate personal protective equipment ("PPE"):
  - o Proper footwear and clothing (<u>e.g.</u>, Non-conductive boots, long pants, and comfortable shirt;
  - o ROW license:
  - Hardhat:
  - o Safety gloves;
  - o Eye protection;
  - o Whistle;
  - o Flashlight; and
  - o Hi-Vis Vest/Jacket with an "X" stripe pattern on the back;



- Camera (cell phone camera or DPU DSLR/digital camera);
- Fully charged cell phone; and
- Personal identification.

DPU's response to the scene of a safety event is focused on two key areas.

- DPU oversees MBTA's safety event investigation process and assess compliance with the MBTA Safety Event Investigation Manual.
- Additionally, DPU gathers information associated with the field response checklist. This on-scene evidence collection is key to ensuring that DPU can conduct a parallel investigation when determined appropriate to do so.

The DPU Investigator(s) must follow all MBTA safety rules when on-scene at the MBTA.

When it is safe to do so and the DPU Investigator(s) has returned from the safety event scene, the Investigator shall provide a written summary via email to the RTSD Director and the RTSD staff with the following information:

- MBTA personnel responding (identify all departments that responded);
- Summary of what happened (explain what was involved and what the intended action was);
- Current state/condition of equipment (identify damage and unusual anomalies);
- Specific landmarks (identify static landmarks and the approximate distance to the safety event scene location);
- Equipment involved (identify the equipment involved);
- Weather (describe the weather at the time of the safety event);
- Deficiencies noted (identify missing equipment, etc.); and
- Passengers (identify number of passengers on board, number of injuries, evacuation for life safety reasons, if applicable).

The DPU Investigator(s) shall also place all related documentation and information collected into the DPU SMART Database as well as the DPU shared drive in the appropriate folders where ongoing investigation activities and any reports are filed.

### 3. POST-INCIDENT "HOTWASH"

Immediately following the conclusion of a safety event response for a Tier 1 event<sup>12</sup>, and other safety event responses as determined by MBTA, MBTA initiates a "hotwash" discussion with all

Tier 1 events refer to Investigation Thresholds outlined in MBTA's Safety Event Investigation Manual ("Investigation Manual"), p. 8. With regard to Rail Transit Safety, this includes: a collision at greater than five miles per hour; evacuation for fire, life, and



MBTA departments involved in the safety event response, as indicated in MBTA's Investigation Manual. A "hotwash" (called a Safety Event Response Team debrief in the Investigation Manual), is a facilitated debriefing of a safety event. During the hotwash, involved personnel are asked to point out areas of strength and areas for improvement in the organization's response. MBTA and RTSD staff identify lessons learned from the safety event response. This "hotwash activity is used in developing any after-action review and improvement planning for both MBTA and DPU. Additionally, MBTA Safety Division will use this opportunity to ensure that MBTA divisions completed their responsibilities within the MBTA Investigation Manual. Any immediate corrective actions taken are documented as part of this discussion.

#### E. ONGOING INVESTIGATION ACTIVITIES

By the close of business on the business day following a reportable safety event, MBTA is required to submit a written preliminary notification, summarizing the safety event and other basic information outlined in 220 CMR 151.09 (1), to DPU via the appropriate DPU-approved Preliminary Notification Form. RTSD staff logs the preliminary notification information in the DPU Rail Transit Database where a DPU Event Number is created and for each MBTA Event Number.

Typically, the DPU Investigator on-call at the time of the safety event is assigned to follow up on any investigation activities and to review the final report.

The DPU Investigator(s) coordinates ongoing investigation activities with the MBTA Investigator identified on the MBTA preliminary notification. Additional RTSD staff may assist the DPU Investigator depending on the severity or complexity of the event. Additional investigation activities may be completed as the investigation process continues.

#### Examples of investigation activities:

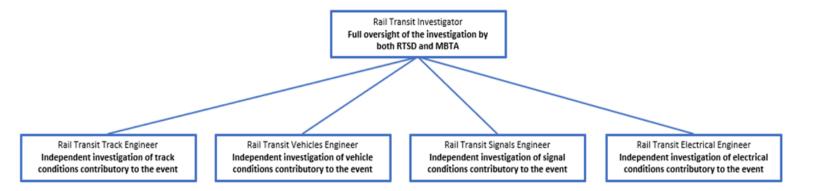
- Interviews (speaking with employees and witnesses);
- Video/audio recordings (requesting and reviewing video/audio obtained through MBTA Safety Division);
- Equipment data recorder (if equipped, reviewing the requested data);
- Testing/teardown of equipment (DPU can request an analysis of the equipment including a detailed breakdown of components);
- Past inspections of equipment (reviewing records of past inspections of equipment and anomalies);
- Injuries/fatalities (gathering information from MBTA Safety Division or MBTA Transit Police);

safety reasons; fatality; five or more injuries requiring medical transport; person struck by a rail vehicle/Code 2; vehicle derailment/Code 3; runaway vehicle; unsafe infrastructure or equipment failure; high profile event.



- Collaborating with MBTA employees and collectively sharing findings throughout the investigation; and
- Examining findings to determine causal or contributory factors.

DPU uses subject matter experts within the RTSD to support individual aspects of the investigation. A traditional model for investigation is below:



DPU may obtain information from MBTA by using the Information Request Form. This form allows the DPU Investigator to detail the information required by DPU to complete the investigation of a safety event. The length of time where MBTA must respond to the request is determined by the selected Tier; see chart below.

Tier	Description	Response Time
Tier 1	Information related to NTSB, FTA, and DPU	24 hours
	incident investigations	
Tier 2	Information related to DPU Safety Oversight	48 to 72 hours
	final reports	
Tier 3	All other information requests	5 business days

DPU may request status updates from MBTA at any time. DPU and MBTA staff may meet to resolve any discrepancies in DPU's conclusions about causal or contributory factors.

#### F. SEVEN-DAY POST-INCIDENT MEETING

Within seven days following all Tier 1 safety events, or any Tier 2 safety event when determined necessary by DPU or MBTA, MBTA should conduct a post-incident meeting (as outlined in the MBTA's Safety Event Investigation Manual) and include DPU, to provide an opportunity for the MBTA to discuss potential causes and identify hazards that need to be addressed. The Seven-Day Post-Incident Meeting centers on discussions of what should have happened versus what



occurred, and how and why the actual outcome differed, causing the safety event. This meeting also includes a discussion of all factors that contributed to the safety event, including unanticipated hazards. The meeting should conclude with a discussion of what MBTA can do to prevent a similar safety event from happening in the future.

The outcome of this meeting may result in a referral to the MBTA Safety Management Review Committee ("SMRC") as outlined in the MBTA's Transit Safety Plan.

#### G. INDEPENDENT INVESTIGATION REVIEW AND APPROVAL OF FINAL REPORTS

#### 1. MBTA ACTION

DPU requires MBTA to submit a status report 30 days<sup>13</sup> after a reportable safety event and include the following information, at a minimum. The 30-day status report is to ensure MBTA's compliance with their Safety Event Investigation Manual.

#### **30-Day Status Report Content**

- A summary of the event
- Whether the event is State or FTA reportable
- Time and date of DPU, FTA, and NTSB notifications
- Immediate actions taken to address and clear the safety event
- A summary of investigative activities underway or completed
- A list of MBTA investigative activities that remain outstanding
- Whether the MBTA anticipates that it will request an extension beyond 60 days to complete the investigation and report

Within 60 days, MBTA must submit a Final Report to DPU. At a minimum, the report must include the information listed below. A probable cause of the incident should be selected from the list below. Note that probable cause is not a description of the event or the conditions during the event, but rather one or more reasons that the event occurred. DPU may require additional information from MBTA based on the severity of the safety event or complexity of the investigation.

# **60-Day Final Report Content**

- Event description
- Notification, Incident Response, and Incident Command

Pursuant to 220 CMR 151.02, the computation of time within 220 CMR 151 includes business days only.



- Initiating Event
- Immediate Corrective Actions
- Operator Information Fatigue Evaluation and Training
- Investigation:
  - Operator event report
  - Field supervision report
  - Employee record/Training and Operating History
  - Post-accident safety inspection
  - Video analysis
  - Communications analysis
- Probable Cause (select one or more):
  - Equipment Failure (system component failure)
  - Poor Maintenance (system is not properly maintained)
  - Operator Rule Violation/Human Factor (employee error or organizational issue)
  - Slips and Falls (in station or on vehicle)
  - Imprudent Patron Actions (in stations or on vehicle)
  - Medically Related
  - Action of Motorist (non-transit auto driver at fault)
  - Pedestrian Actions
  - Trespasser
  - Suicide
  - Other (acts of nature/unknown)
- Contributory Cause (if any)
- Findings and Recommendations (including CAPs)
- Investigator
- Date of Report
- Distribution

#### 2. DPU ACTION

Once DPU receives the final investigation report, the DPU Investigator must complete the Independent Investigation Review Checklist ("Investigation Checklist") to evaluate the sufficiency and thoroughness of MBTA's investigation and whether the findings of causation are acceptable. Any resulting corrective actions are tracked in a separate process described in SOG Section 5.5.

In completing the Investigation Checklist, the DPU Investigator should address each topic outlined on the form, noting, at a minimum, the report page number where each piece of information can be found. Where needed, the DPU Investigator will consult with documentation or other evidence outside of the report that is already in DPU's possession, such as reconstruction reports or audio and video recordings. The DPU Investigator decides the sufficiency and thoroughness of MBTA's report, and whether they concur with the findings of



causation. If the DPU Investigator does not concur, they should note where the report fails to appropriately address any matter including causation.

Once the checklist is completed, the DPU Investigator forwards the report to RTSD Leadership for final decision and issuance.

DPU may engage MBTA in further discussion and request additional information using the Information Request Form prior to accepting or rejecting the report. Pursuant to 220 CMR 151.09, DPU has 15 days to review and accept or reject the final report.

If DPU concurs with the results of the investigation, including the probable cause and contributing factors, the Assistant Director sends a notice of approval and closure of the report to the MBTA via email. Additionally, RTSD staff coordinate with the Investigators to reconcile the SMART Database and investigation trackers to reflect the closure.

# Closing a final investigation report

- The RTSD Assistant Director is ultimately responsible for completing the formal approval and adoption of the investigation.
  - o The DPU employee responsible for investigative tracking completes the closeout of the investigation in the database.
  - o The RTSD Assistant Director initials the Investigation Checklist.
  - The RTSD Assistant Director notifies MBTA that the investigation has been completed and closed.
  - The employee responsible for investigative tracking notifies the assigned DPU Investigator(s) when the investigation results have been entered into the database.
- The DPU Investigator ensures all supporting documentation is placed in the event investigation file in the database and the shared drive.
  - o Supporting documentation may include on-scene notes, photos, fact finding interviews, OCC audio recordings, training records etc.
- The Supervisory Investigator or another Investigator designated by the RTSD Assistant Director reviews the data entered in the database and shared drive to confirm compliance with the DPU SSO program's recordkeeping requirements.

If DPU does not accept MBTA's investigation report results, DPU will send a letter via email to MBTA with a notice of rejection and reasons why DPU does not agree with the results. MBTA has 20 days from the notice of rejection to address deficiencies and amend the report. The review process is repeated until DPU accepts the final report.



If a final report is not approvable, or to resolve a dispute with MBTA regarding the final report, DPU may:

- (1) Report the areas of disagreement in writing to, and negotiate with, MBTA until the dispute is resolved; or
- (2) Conduct its own investigation according to the requirements of 220 CMR 151.09 and submit the final report to MBTA. DPU will provide MBTA with 14 calendar days to submit a written dissent, if any; and will attach any MBTA dissent to DPU's final report; or
- (3) Issue any Order that it deems necessary.

### H. REQUIRED SAFETY EVENT DOCUMENTATION

The RTSD Lead Investigator is responsible for collecting and saving documentation for each reportable safety event. Documentation and duties may include the following:

- Evidence of All Page notification or other notification;
- Evidence of FTA Notification, when required added to preliminary notification;
- Evidence of Notifications to Other Federal or State Agencies, when required;
- Preliminary Notification;
- Review and approval of Immediate Actions taken See SOG Section 5.5 for review and approval of corrective actions and plans process;
- Any significant communication regarding the investigation process;
- Final report;
- Recordkeeping and updating the database;
- Review and approval of Recommendations and Corrective Actions and Plans See SOG Section 5.5 for the corrective action and corrective action plan process; and
- Completion of the DPU On Scene Checklist.

## RELATED MBTA MINIMUM STANDARDS FOR SAFETY

- Standard Operating Procedure for the Notification of Outside Agencies and DPU On-Site Oversight Activities,
- MBTA Incident Investigation Manual,
- MBTA ROW Safety/Roadway Worker Protection manual
- Rules within the safety track of MBTA's progressive discipline policy
- MBTA PTASP

## **Additional Documents**

None

### **Updates**



May 7, 2021- initial release

March 16, 2022 –updated the list of State Reportable Events and added new State Reportable Event Report Form.

May 16, 2022 – updated to include probable cause options for Final Investigation Reports June 10, 2022 – effective date

January 18, 2024 – updated in accordance with FTA SD 22-8 Corrective Action Plan. March 24, 2025 – revised



Section 5.3 – Triennial FTA HQ Audit of the SSO Program		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.10 (2)	
Reference		
Federal Reference	49 U.S.C. 5329(d) (4) (A) (vi); 49 C.F.R. Part 674.31	

#### I. PURPOSE

The purpose of the Triennial Audit by the Department of Public Utilities ("DPU") is to audit the Massachusetts Bay Transportation Authority's ("MBTA") Public Transportation Agency Safety Plan<sup>14</sup> ("PTASP") and its implementation and provide MBTA a formal report. The Triennial Audit includes the implementation of the PTASP in all areas of MBTA's operational and organizational structure. The audit results are categorized in the report as positive observations, opportunities for continual improvement, recommendations, and findings.

## II. REQUIREMENT

Please note that the terms *rail fixed guideway public transportation system, rail transit agency* ("RTA"), and *transportation authority* as used below each refer to the MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

49 U.S.C. § 5329(e) State Safety Oversight Agency -Each State Safety oversight program shall establish a State safety oversight agency that -

(4)(A)(vi) audits, at least once triennially, the compliance of the rail fixed guideway public transportation systems in the eligible State subject to this subsection with the public transportation agency safety plan required under subsection (d).

49 C.F.R. Part 674.31 Triennial Audits: General Requirements. At least once every three years, an SSOA must conduct a complete audit of an RTA's compliance with its Public Transportation Agency Safety Plan. Alternatively, an SSOA may conduct the audit on an ongoing basis over the three-year timeframe. At the conclusion of the three-year audit cycle, the SSOA shall issue a report with findings and recommendations arising from the audit, which must include, at minimum, an analysis of the effectiveness of the Public Transportation Agency Safety Plan, recommendations for improvements, and a corrective action plan, if necessary or appropriate. The RTA must be given an opportunity to comment on the findings and recommendations.

MBTA refers to its PTASP as the Transit Safety Plan or TSP.



220 CMR 151.10 (2) Triennial Audit. The Department shall create an ongoing audit program specific to the Transportation Authority's implementation of its SSPP<sup>15</sup> or PTASP. All sections of the SSPP or PTASP shall be reviewed at least once every three years.

- a) The ongoing audit program will include, but will not be limited to, the following on-site announced and unannounced activities: observations, inspections, investigations, audits, examinations, interviews, and testing.
- b) As part of the ongoing audit program the Department shall prepare and issue a report containing findings and recommendations, including an analysis of the effectiveness of the SSPP or PTASP, and a determination of whether it should be updated. Further, the Transportation Authority will be given the opportunity to comment on any Department finding and/or recommendation offered in an audit report.
- c) In conducting on-site audit, the Department may request additional information, clarification or revisions specific to the Transportation Authority's SSPP or PTASP. The Department may also perform inspections, investigations and reviews of the operation and maintenance of the Transportation Authority's rail fixed guideway system to determine whether its safety procedures comply with the SSPP or PTASP. In the event the event the Transportation Authority objects to such a request, the Department and the Transportation Authority shall agree to an appropriate course of action to address the outstanding issues within 15 days of the objection.
- d) The Department will update the Transportation Authority of the on-site audit results either at a regularly scheduled Department and Transportation Authority meeting or by sending a formal notification.
- e) At the conclusion of the three-year audit cycle, the Department will issue a final report that will include, findings and recommendations identified as a result of ongoing audit activities.

### **GUIDANCE**

### **General Audit Process**

In addition to DPU's regular safety oversight of the MBTA and its subway system, DPU will conduct a formal triennial audit of MBTA's implementation of the PTASP on a three-year basis. DPU may also decide to conduct the formal triennial audit on an annual basis, instead of once every three years, as permitted in the regulations. 16 When performed on the three-year basis, the audit includes a formal review conducted in the second half of the third year.

The success of the audit is dependent upon coordination with and cooperation of MBTA. MBTA's operational demands should be accounted for when conducting audit activities. Audit activities (including unannounced activities) that do not need to occur at a specific time and

<sup>15</sup> The SSPP was the predecessor of the PTASP and is no longer in effect following the issuance of MBTA's first PTASP in 2020.

<sup>16</sup> This document is generally written for a three-year audit process. When DPU chooses to conduct the Triennial Audit on an annual basis, it will phase the audit activities referenced in this document in a manner appropriate for an annual cycle.



### IV. RESPONSIBILITIES

Rail Transit Safety Division ("RTSD") Director: The RTSD Director is responsible for the overall management of the Triennial Audit, including review and approval of the audit's design, implementation, reports, and communications with the MBTA.

RTSD Staff: All staff members are likely to participate in the Triennial Audit (<u>e.g.</u>, performing management interviews, note taking, conducting field activities, managing checklists, report writing, etc.).

#### A. PROCEDURES

#### 1. AUDIT PLANNING AND SCHEDULING

The planning of the overall Triennial Audit may be initiated at the beginning of the three-year cycle by identifying general areas of the PTASP and areas of the MBTA to be covered during the Audit. A tentative general flexible schedule for the audit should be developed and approved by the RTSD Director.

The previous years' audit activities and any changes in the PTASP shall be reviewed at the beginning of years two and three in the triennial audit cycle so that the general audit schedule can be amended as needed.

For audits conducted on an annual basis, early in each year the RTSD Director will identify the general areas of the PTASP and MBTA's implementation to be audited, as well as a tentative audit schedule. The previous years' audit and any changes in the PTASP will be reviewed each year of the annual audit to guide that year's audit focus and schedule.

### 2. ANNOUNCED AND UNANNOUNCED AUDITS

DPU's audit program includes, but is not limited to, most or all of the following onsite announced and unannounced activities: observations, inspections, investigations, audits, examinations, interviews, and testing. See SOG Section 5.6, III.A., Safety Risk Monitoring Process and Activities, for an explanation of scheduled, announced and unannounced inspections.

#### 3. AUDIT ACTIVITIES

**Target Oversight Activities** are activities designed to produce information to develop a result or finding. Targeted audit activities are associated with verification of a specific task or item that is



directly being overseen for compliance and data measurement. The majority of audit activities conducted by DPU will be targeted.

State Safety Oversight/Safety Risk Management Monitoring Activities are usually individual activities designed to ensure state safety oversight and MBTA's compliance with its safety risk management process in all areas of the PTASP. The results are used in the ongoing audit.

#### 4. GENERAL AUDIT TYPES

**Document Review:** Sampling MBTA's PTASP and references and/or supporting procedures to ensure that each area of the PTASP is addressed.

**Rules Review:** Sampling of MBTA's operating rules and bulletins, and maintenance rules and procedures, to determine if they have been reviewed and updated on a regular basis, if they have been distributed to appropriate MBTA personnel as specified in the safety plan, if training has been offered, and if the process has been tracked.

**Records Review:** Sampling of MBTA's records for evidence of implementation of the PTASP and referenced or supporting procedures. Records reviewed and/or sampled may include, but are not limited to, training records, records of employee rules compliance checks, internal safety audit reports, maintenance inspection reports, minutes of safety committee meetings, etc.

**Interviews with MBTA Senior Management:** Discussions held with senior MBTA management, including MBTA's General Manager, to assess their knowledge of MBTA's safety program, as specified in the PTASP and referenced or supporting procedures, and to gauge their commitment to the safety program.

**Interviews with MBTA Safety Division Personnel:** Discussions held with MBTA Safety Division personnel, including the Chief Safety Officer, to assess implementation of MBTA's safety program, to identify issues in its implementation, and to highlight areas of compliance and non-compliance with the Program Standard and associated federal requirements.

**Interviews with Other MBTA Personnel:** Discussions held with other MBTA personnel (including a representative sample of frontline operations and maintenance personnel) to verify their understanding of requirements specified in the PTASP and referenced or supporting procedures.

**Field Observations:** Observations and sampling conducted on-site at the MBTA to observe implementation of the processes and procedures described in the PTASP and supporting or referenced documents, procedures and materials related to MBTA's safety program.



**Inspections and Measurements:** Inspections and measurements conducted on-site at MBTA to ensure that MBTA's infrastructure and equipment is maintained to the specifications identified in MBTA's standards, procedures, and manuals.

# 5. GUIDELINES FOR PERFORMING AUDIT ACTIVITIES 17

**Preparation:** Prior to conducting a specific audit activity, the RTSD staff, and if relevant, consultants (collectively, the auditors), review the audit checklist and procedures along with supporting documents and MBTA safety rules related to the activity being audited (e.g., right-of-way ("ROW") access, facility access).

**Scheduling/initiation:** After preparing for the Triennial Audit, the auditors, as appropriate, contact MBTA Safety Division to arrange for onsite audit activities. <u>See</u> SOG Section 5.6a for information on types of access and associated requirements.

Conducting an Audit Activity: If MBTA is able to participate, or if MBTA participation is not needed, the auditors shall follow the Triennial Audit activities procedures and conduct the activity. If MBTA personnel are not able to participate and the Triennial Audit activity requires their participation, the auditors shall either reschedule the particular activity or request RTSD manager assistance in obtaining MBTA's participation without rescheduling.

**Documenting an Audit Activity:** The results of an audit activity (or the reason such activity was not performed) shall be documented on the appropriate RTSD form.

#### AUDIT REPORTS

As part of the audit at the end of the three-year Triennial Audit cycle, DPU shall prepare and provide MBTA with a draft report containing findings and recommendations, including an analysis of the effectiveness of the PTASP and a determination of whether it should be updated. MBTA is given the opportunity to comment on any DPU finding and/or recommendation in the draft audit report. DPU reviews MBTA's comments, adjusts the draft report as it deems appropriate, and issues a final Triennial Audit Report to MBTA. From time to time, the RTSD Director may provide a summary report of the status of the Triennial Audit cycle.

When DPU audits on an annual basis, DPU prepares an annual audit report each year and follows the same process identified in the paragraph above. In such case, at the end of the three-year audit cycle, DPU integrates each annual audit report into a final Triennial Audit Report.

The Triennial Audit Report highlights four areas:

These guidelines also apply to performing activities as part of the Safety Risk Management Monitoring program.



- 1. **Positive Observations:** *Successes within the scope of the audit activities.*
- 2. **Opportunities for Continual Improvement:** Ways to build on current MBTA processes to further enhance safety.
- 3. **Recommendations:** Decisions that require a written response to the item listed. Based on the MBTA's response, the item can be closed, monitored, or require a CAP.
- 4. **Findings:** Decisions that require a CAP that is tracked through DPU. Some findings may not require a CAP based on DPU discretion.

The RTSD Director may communicate formally with the MBTA regarding Triennial Audit findings and next steps, as needed.

#### 7. POST-AUDIT FOLLOW UP

DPU tracks MBTA's submittal of CAPs on the Audit findings, and MBTA's responses on the Audit recommendations. DPU administers CAPs in accordance with SOG 5.5 and 220 CMR 151.07, and replies to MBTA on the recommendations as to whether the response is acceptable, needs additional information, or requires a CAP. Once the Triennial Audit Report is complete, RTSD posts the document on the DPU website.

# **Additional Documents**

None

# **Updates**

November 17, 2017 – revised April 30, 2019 – revised March 24, 2025 – revised



Section 5.4 – Hazards Tracking		
Version Effective Date	March 24, 2025	
Program Standard	220 CMR 151.06	
Reference		
Federal Regulation	49 CFR Part 674.13(a)(4); 49 CFR Part 673.25(b)(1)	
Reference		

#### PURPOSE

A core principle of Safety Management Systems ("SMS") is the identification, assessment, and mitigation of hazards. This section explains how the Department of Public Utilities ("DPU") monitors and tracks hazards at the Massachusetts Bay Transportation Authority ("MBTA") and MBTA's Hazard Management Process.

### II. REQUIREMENT

Please note that the terms *rail fixed guideway public transportation system*, *rail transit agency* ("RTA"), *transit agency* and *transportation authority* as used below each refer to the MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

- 49 C.F.R. Part 674.13(a)(4) The SSOA has authority to review, approve, oversee, and enforce the public transportation agency safety plan for a rail fixed guideway public transportation system required by 49 U.S.C. § 5329(d);
- 49 C.F.R. Part 673.25(b)(1) Safety hazard identification. A transit agency must establish methods or processes to identify hazards and consequences of the hazards.

#### 220 CMR 151.06: Hazard Management Process

- (1) The Transportation Authority shall incorporate the following process, as approved by the Department, in its SSPP [System Safety Program Plan] or PTASP [public transportation agency safety plan] to identify and resolve hazards during operation, including hazards resulting from subsequent system extensions or modifications or operational or environmental changes or hazards discovered during reviews, inspections or investigations.
- (2) Hazard Tracking Log. The Transportation Authority shall consolidate all hazard information developed pursuant to its various methodologies for identifying and assessing hazards into a single, coordinated process. This process may include worksheets, forms, computer databases and other tools to support standardization and organization of hazard information. Based on this process, the Transportation Authority shall establish a Hazard Tracking Log that reflects the consolidation of information in the hazard management process by listing all identified hazards. The Hazard Tracking Log may be organized by assigned number, type of hazard, source from which it was identified, or element of the Transportation Authority's operation affected by the hazard (i.e., facilities, vehicles, track and signal, communications, tunnel ventilation, personnel



training procedures, Form B, internal audits, rules compliance testing, and safety hotline, etc.), requirements for ongoing reporting to the Department regarding hazard management activities, and the status of the hazard. The Transportation Authority shall submit the Hazard Tracking Log as part of its SSPP or PTASP for review and approval. Upon approval, the Hazard Tracking Log shall be continuously available to the Department staff for review.

(3) <u>Hazard Categorization</u>. The Transportation Authority shall include a formal process to assess and document the risk of each identified hazard. Safety risks must be evaluated in terms of probability and severity, and shall take into account mitigations already in place to reduce the probability or severity of the potential consequence(s) analyzed. The formal process shall include a Risk Assessment Matrix that assigns a Risk Assessment Code based on the combination of one severity category and one probability level.

# (4) Hazard Notification.

- (a) The Transportation Authority shall notify the Department, at a minimum, of any condition meeting the two highest risk levels identified within the Risk Assessment Matrix.
- (b) The Transportation Authority shall notify the Department within the time limit and in the format determined by the Department.
- (c) After initial notification, the Department may require the Transportation Authority to conduct further activities in order to provide more detailed information, including conducting an investigation pursuant to 220 CMR 151.09(3) through (9).

### III. GUIDANCE

MBTA controls and maintains a Hazard Tracking System as part of the Safety Risk Monitoring ("SRM") process which meets the applicable federal and state regulations set forth above. DPU uses data from the Hazard Tracking System to, among other things, identify hazards that should be mitigated through a formal Corrective Action Plan ("CAP"). The Hazard Tracking System is only one source of identifying hazards that require a CAP.

Hazard Tracking is an essential part of DPU's oversight of the SRM section of MBTA's PTASP. The PTASP's SRM section provides MBTA's formal process to identify hazards and analyze, assess, and mitigate safety risk to prevent future safety events. The SRM process identifies hazards and mitigates risk during operation, including hazards resulting from subsequent system extensions, modifications, operational or environmental changes, or hazards discovered during reviews, inspections, or investigations. For more detailed information, RTSD staff should refer to the PTASP section 5 SRM process.<sup>18</sup>

Hazards are identified through various ways, including but not limited to:

- system inspections;
- internal audits and audits by the DPU;
- reports or complaints from employees, customers, riders, and contractors;
- accidents/incidents and system failure reports and investigations to identify causes; and

MBTA refers to their PTASP as the Transit Safety Plan or TSP.



• conducting hazard identification and analysis.

### IV. RESPONSIBILITIES

DPU must ensure that MBTA identifies and tracks hazards by regularly reviewing the hazards MBTA identifies on its Hazard Tracking System and meeting with MBTA to discuss those hazards. MBTA provides DPU with a monthly report ("hazard tracking report") that identifies notable hazards and metrics, including trends/patterns, as entered in its Hazard Tracking System. DPU analyzes the data in the Hazard Tracking System and ensures that MBTA's hazard tracking report is accurate. DPU determines next steps including whether any hazards require a CAP. DPU informs MBTA of any changes that MBTA must make to the Hazard Tracking System requirements.

MBTA must notify DPU when it identifies a hazard meeting the two highest risk levels in the PTASP's Risk Assessment Matrix, meaning red or orange levels. DPU may direct MBTA to use a specific format and set a timeframe to report an identified hazard to DPU. DPU's notification requirements are outlined in SOG Section 5.1.

DPU may require MBTA to conduct further activities to provide more detailed information on the hazard, including investigating pursuant to 220 CMR 151.09 (and SOG Section 5.1). DPU may determine that MBTA must address a hazard by creating a CAP. DPU's CAP process is outlined in SOG Section 5.5.

#### A. IDENTIFYING AND TRACKING HAZARDS

MBTA maintains a Hazard Tracking System that identifies hazards and assigns each a risk category. MBTA's process for assigning a risk category is discussed in SOG Section 5.5. The Hazard Tacking data includes the source category through which the hazard was identified (e.g., safety event, employee report, or public complaint). Tracking this information helps DPU ensure that MBTA is identifying hazards proactively, rather than reactively, for example, following a safety event or near miss.

### B. HAZARD TRACKING MEETING

DPU hosts a monthly Hazard Tracking meeting with MBTA to review the Hazard Tracking data. At least one week prior to the meeting, MBTA must provide to DPU a monthly hazard tracking report that outlines notable hazards and metrics, including trends/patterns, related to hazards identified in the Hazard Tracking System. RTSD staff reviews the hazard tracking report prior to the meeting to ensure accuracy and to identify specific hazards that warrant discussion. Of specific interest should be all hazards categorized as red (high risk), orange (serious risk), or yellow (medium risk) in accordance with the PTASP.

During this meeting, DPU and MBTA review hazards outlined in the report together and discuss specific hazards and MBTA's plans to mitigate them. MBTA must provide status updates for



each red, orange, or yellow category hazard identified. DPU addresses with MBTA any hazards it determines are misclassified. MBTA should correct any misclassified hazards in the Hazard Tracking System identified during the Hazard Tracking Meeting. MBTA should be prepared for RTSD staff to ask questions about hazards and the risk category assigned by MBTA. Hazards discussed in the Hazard Tracking Meeting may result in CAPs, may be referred to the MBTA's Safety Management Review Committee, or other actions may be taken as appropriate. DPU may alter the frequency of the Hazard Tracking meeting, as needed, or call a special meeting to discuss a hazard with the MBTA.

### C. ANALYSIS OF TRENDS

Among other resources, DPU may use the Hazard Tracking data to identify trends or patterns that indicate potential hazards or changes to risk associated with known hazards. Data analysis activities are described in SOG Section 5.6 Safety Risk Monitoring. Hazard Tracking data may also be used in DPU's risk-based inspection process.

### **Additional Documents**

None

### **Related MBTA Minimum Standards for Safety**

• MBTA Transit Safety Plan, Sections 5 and 6

### **Updates**

September 1, 2021 – initial release January 18, 2024 – updated in accordance with FTA SD 22-8 Corrective Action Plan March 24, 2025 – revised



Section 5.5 – Corrective Action Plans and Corrective Actions		
Version Effective Date	March 24, 2025	
Program Standard	220 CMR 151.02; 220 CMR 151.07	
Reference		
Federal Regulation	49 C.F.R. Part 674.37	
Reference		

### I. PURPOSE

A Corrective Action Plan ("CAP") is a plan developed by the Massachusetts Bay Transportation Authority ("MBTA") which describes the actions MBTA will take to minimize, control, correct, or eliminate risks and hazards and the schedule for taking those actions. The Department of Public Utilities ("DPU") or the Federal Transit Administration ("FTA") may require MBTA to develop and execute a CAP at any time. DPU must review and approve the CAP before MBTA carries out the plan; except for immediate or emergency corrective actions taken to ensure immediate safety, provided that DPU is timely notified and provides subsequent review and approval.

This procedure explains the process and criteria by which DPU: (1) requires MBTA to develop and implement a CAP; (2) reviews and approves or rejects a CAP; (3) tracks and verifies MBTA's compliance with a CAP; (4) manages any conflicts between DPU and MBTA regarding a CAP; and (5) conducts risk management monitoring associated with a completed CAP to ensure its continued effectiveness.<sup>19</sup>

#### II. REQUIREMENT

Please note that the terms *rail fixed guideway public transportation system*, *rail transit agency* ("RTA"), and *transportation authority* as used below each refer to the MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

### 49 C.F.R. Part 674.37- Corrective action plans

(a) The SSOA must, at a minimum, require the development of a CAP for the following:

Apart from monitoring MBTA's CAPs, DPU may have its own CAPs. Every three years, FTA conducts an audit of DPU, evaluating DPU's compliance with its own Program Standard. FTA's Final Audit Report of DPU may result in findings that require DPU to create CAPs with a deadline for completion. DPU's resolution of its own CAPs may require changes in procedure or the SOG and may impact MBTA's practices. FTA reviews and approves DPU's CAPs, and ultimately approves the closure or completion of DPU CAPs. Preparation for an audit by FTA is outlined in SOG Section 2.10.



- (1) Results from investigations, in which the RTA or SSOA determined that causal or contributing factors require corrective action;
- (2) Findings of non-compliance from safety reviews and inspections performed by the SSOA; or
- (3) Findings of non-compliance from internal safety reviews performed by the RTA.
- (b) In any instance in which an RTA must develop and carry out a CAP, the SSOA must review and approve the CAP before the RTA carries out the plan. However, an exception may be made for immediate or emergency corrective actions that must be taken to ensure immediate safety, provided that the SSOA has been given timely notification, and the SSOA provides subsequent review and approval.
- (c) A CAP must describe, specifically, the actions the RTA will take to correct the deficiency identified by the CAP, the schedule for taking those actions, and the individuals responsible for taking those actions. The RTA must periodically report to the SSOA on its progress in carrying out the CAP. The SSOA may monitor the RTA's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the SSOA deems necessary or appropriate.
- (d) In any instance in which a safety event on the RTA's rail fixed guideway public transportation system is the subject of an investigation by the NTSB or FTA, the SSOA must evaluate whether the findings or recommendations by the NTSB or FTA require a CAP by the RTA, and if so, the SSOA must order the RTA to develop and carry out a CAP.

#### 220 CMR 151.02

<u>Corrective Action Plan (CAP)</u>. A plan developed by the Rail Transit Agency that describes the actions the Rail Transit Agency will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for implementing those actions. The State Safety Oversight Agency or FTA may require a Rail Transit Agency to develop and carry out a corrective action plan.

#### 220 CMR 151.07- Corrective Action Plans

- (1) The Transportation Authority must develop a written corrective action plan (CAP) reported on a Department approved form to address hazardous conditions meeting certain Risk Assessment Codes specified by the Department, and identified through:
  - (a) Investigations, in which identified causal and contributing factors are determined by the Transportation Authority or the Department as requiring corrective actions;
  - (b) Safety reviews and audits performed by the Department;
  - (c) Internal safety audits performed by the Transportation Authority;
  - (d) The Hazard Management Process; or
  - (e) Unannounced On-site Oversight Activities performed by the Department.



- (2) Each CAP shall identify the:
  - (a) Event or condition requiring corrective action;
  - (b) Action necessary to eliminate or control occurrence or condition;
  - (c) Schedule for implementation;
  - (d) Person or department responsible for implementation;
  - (e) The Department supervisor who is attesting to the content of the CAP.
- (3) The Transportation Authority shall submit the CAP to the Department for review and formal approval within 60 days of the identification of the Hazard and/or Risk or the event triggering the necessity of a CAP. The Department must review and approve the CAP before the Transportation Authority carries out the plan, an exception may be made for emergency CAPs to ensure immediate safety, provided the Department receives timely notification and provides subsequent review and approval. The Department may monitor the Transportation Authority's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the Department deems necessary or appropriate. Upon request, the Transportation Authority must allow the Department access to review the data used in the preparation of the CAP.
- (4) If the Transportation Authority does not complete a CAP within 60 days of the discovery of the Hazard and/or Risk, it shall submit a written request for an extension outlining the reason(s) for the extension, including the tasks to be completed and a time line for completion.
- (5) The Transportation Authority must provide the Department with written:
  - (a) Verification that each corrective action described in the CAP has been implemented, or that a proposed alternate action(s) has been implemented subject to Department review and approval;
  - (b) Status reports as requested by the Department, describing the status of each corrective action not completely implemented pursuant to a CAP's implementation schedule; and
  - (c) Reports to the Department, using the Department's CAP identification number, when the requirements of an approved CAP have been satisfied.
- (6) Upon receipt of the Transportation Authority's CAP, the Department has 15 days in which to review and approve the CAP in writing. If the Department rejects the CAP, the Transportation Authority has 20 days from notice of rejection to submit a revised CAP to the Department for approval. The Department may grant an extension beyond the 20 days for good cause shown.
- (7) If the Department is unable to approve a proposed CAP or to resolve a dispute with the Transportation Authority resulting from the development or enforcement of a CAP, the Department must either:
  - (a) Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved;
  - (b) Develop, and submit to the Transportation Authority for implementation, its own written CAP or enforcement procedures according to the requirements of 220 CMR 151.07; or
  - (c) Issue any Order that it deems necessary.



- (8) In the event the National Transportation Safety Board (NTSB) or FTA conducts an accident investigation, the Department shall review the finding and/or recommendations to determine if they necessitate the development of a corrective action plan. If a CAP is required by the FTA, or the Department, the Transportation Authority shall develop it.
- (9) The Department will monitor and track the implementation of each approved corrective action plan through completion. Such monitoring will occur both monthly and quarterly as part of the scheduled meetings between the Department and the Transportation Authority pursuant to 220 CMR 151.01(5).
- (10) The Department may withhold from public disclosure CAPs prepared or approved by the Department whose release is likely to jeopardize public safety as contemplated in M.G.L. c. 4, § 7, clause Twenty-sixth(n).

#### III. GUIDANCE

DPU tracks both MBTA's CAPs and Corrective Actions ("CA"). A CAP is a plan with specific steps or activities that together mitigate or remove a risk or hazard. Each step or activity in that plan is a CA. A CAP may include one or more CAs. All CAs should be completed before a CAP is closed. DPU assigns each CAP a unique number for tracking.

### A. CAP CONTENTS

Each CAP must identify the:

- Event or condition requiring one or more CAs;
- Actions necessary to eliminate or control occurrence or condition;
- Schedule for implementation of each CA;
- Person or department responsible for implementation;
- MBTA department supervisor who is attesting to the content of the CAP; and
- Any other critical information, such as interim steps taken before longer-term mitigations are implemented.

### B. CAP SOURCES

CAPs come from a variety of sources or events. One source or event may result in multiple CAPs. CAP sources include, but are not limited to:



# • **Investigations** (SOG Section 5.1)

Investigations include investigations of state--reportable and FTA--reportable<sup>20</sup> Safety Events, accident investigations conducted by FTA, National Transportation Safety Board, Federal Railroad Administration, or Transportation Security Administration, and other investigations required by the DPU. MBTA includes immediate CAs in its preliminary report to DPU and later may propose CAPs in its final investigation report.

#### Internal Audits

MBTA's Safety Division conducts internal audits of all MBTA departments on a rotating basis. At the end of each internal audit, MBTA Safety Division issues an internal audit report with recommendations and/or CAPs, including any immediate CAs taken. For information on MBTA's internal audit process, see the Public Transit Agency Safety Plan ("PTASP"), Section 6.

### • Triennial Safety Program Audits (SOG Section 5.3)

Over a three-year cycle, the DPU audits MBTA's compliance with its PTASP and issues a final audit report to MBTA. Each audit finding requires a CAP unless DPU's report indicates otherwise.

• Safety Risk Management Monitoring and Hazard Identification Activities (SOG Sections 5.4 and 5.6)

DPU may direct MBTA to develop a CAP in response to trends or changes identified through DPU's Safety Risk Management Monitoring ("SRM Monitoring") and MBTA's Hazard Identification activities. Additionally, DPU may direct MBTA to develop or modify a CAP should DPU determine the initial CAs do not address the underlying hazard or that additional mitigation is required.

The purpose of hazard identification is to analyze a hazard's risks and the elimination of the hazard or, if it cannot be eliminated, the reduction of its risks to an acceptable level.

When MBTA identifies a hazard or ineffective risk mitigation, MBTA uses a methodology, outlined in its PTASP, to assess the hazard or risk. During this process, MBTA assigns a risk severity and risk probability to each identified hazard. MBTA employees trained in Safety Risk Management ("SRM") select a severity category and severity level based upon the potential consequence identified. Risks are expressed as a risk factor, which is a combination of severity level and probability level.

RTSD staff are required to read MBTA's PTASP sections on risk analysis and risk assessment (Section 5) for a detailed understanding of MBTA's process for classifying risks.

The MBTA's Risk Assessment Matrix (See Figure 1) has four categories.

A list of State and Federal Reportable Events can be found in MBTA's Public Transit Agency Safety Plan ("PTASP"), section 6.



- High Risk (Red)
- Serious Risk (Orange)
- Medium Risk (Yellow)
- Low Risk (Green)

DPU has discretion to determine which risk categories require a CAP. However, the regulations (220 CMR 151.07(1)) require that MBTA must develop a CAP "to address hazardous conditions meeting certain Risk Assessment Codes specified by the Department." Therefore, DPU specifies that MBTA shall create CAPs for risks in the Red category. Additionally, if DPU determines on a hazard-by-hazard basis that a CAP is necessary for hazards in the Orange or Yellow categories, then MBTA shall create a CAP for those hazards.

Assessment	Catastrophic (1)	Critical (2)	Moderate (3)	Minor (4)	Low (5)	Events
Frequent (A)	High	High	Serious	Serious	Medium	Not Effective (A)
Probable (B)	High	Serious	Medium	Medium	Medium	Minimal (B)
Occasional (C)	High	Serious	Medium	Medium	Low	Limited (C)
Remote (D)	Serious	Medium	Medium	Low	Low	Adequate (D)
Improbable (E)	Medium	Medium	Low	Low	Low	Effective (E)
Eliminated (F)			Eliminated			

Figure 2: MBTA's Risk Assessment Matrix

## C. CAP STATUS TRACKING AND MAINTENANCE OF DOCUMENTATION

Upon receipt of a CAP, DPU enters the CAP into the DPU Rail Transit Database, called Safety Management Application for Rail Transit ("SMART").

- DPU assigns each CAP a unique number.
- Each CAP has its own file folder for all related documentation, including initiating notifications, investigation reports, correspondence, inspection reports, and verification documentation.
- Additionally, CAPs and CAs are tracked in a dashboard accessible to all members of the DPU Rail Transit Safety Division ("RTSD"), which records the status of each CAP and each CA.
- A CAP is closed only when all the CAs are complete and the procedure outlined below in Section E is complete. Closed CAPs are reflected in the dashboard.

For each CAP and CA, the following fields are recorded and tracked by DPU:

- DPU CAP number
- MBTA CAP number
- Assigned RTSD staff
- Status CAs and CAP (Open or Complete)
- Source: investigations, etc.



- Reference Number
- CAP due date (from directive letters, Audit findings, investigation reports and approval letters, schedule extension approvals, etc).
- Date CAP received
- DPU CAP Approval Date (note this is approval of the CAP, not approval of completion)
- Hazard to be mitigated
- CA description
- Responsible MBTA department
- MBTA's responsible person for implementation
- Completion date
- Actual implementation date
- Date MBTA Requests Closure or Completion
- RTSD Internal Due Date (RTSD must review and respond to request for closure within 15 business days)
- RTSD Closure or Completion Date (the date that RTSD sends written communication to MBTA that the CAP or CA is completed)

Pursuant to 220 CMR 151.07(9), MBTA must provide to RTSD monthly and quarterly status updates on each CAP. As such, RTSD and MBTA discuss CAPs during regularly scheduled monthly and quarterly meetings (or more frequently as the RTSD Director determines).

#### D. IMMEDIATE CORRECTIVE ACTIONS

When MBTA takes immediate or emergency CAs, MBTA notifies RTSD of the actions taken within 24 hours. When immediate CAs stem from an event investigation, MBTA notifies RTSD in the preliminary notification filed within 24 hours of the event. RTSD may require MBTA to take more actions if the hazard has not been mitigated.

# E. CAP REVIEW, APPROVAL, AND CLOSURE

RTSD's CAP review, approval, and closure process is as follows:

- 1. MBTA Submits a CAP
  - a. MBTA must submit a CAP within 60 days of the identification of a hazard or other event triggering the necessity of a CAP (or sooner for emergency CAPs to ensure immediate safety), to the RTSD Director.
  - b. RTSD staff record the CAP in the SMART Database.
  - c. The RTSD Director assigns the CAP to an RTSD staff member via email. CAPs generated from safety events may be assigned to the investigator assigned to the investigation.

#### 2. Initial Review of CAP



- a. RTSD has 15 business days from receipt of the CAP to review and approve or reject the CAP. The assigned staff should complete their review and draft the approval or rejection letter within seven business days of RTSD's receipt of the CAP.
- b. The staff must determine if the CAP will sufficiently mitigate the hazard.
- c. RTSD staff completes a CAP review form (to verify criteria and activities) to document the intake of a CAP.
- d. All CAP correspondence includes RTSD's assigned number.
- e. If staff proposes **rejection** of the CAP, an RTSD staff member drafts a rejection letter describing the reason for the rejection, and sends it to the Assistant RTSD Director, Compliance and Engineering, for review. Once approved, the RTSD Assistant Director or a designee sends the letter to MBTA via email. MBTA has 20 business days from the notice of rejection to submit a revised CAP to RTSD.
- f. If staff proposes **approval** of the CAP, an RTSD staff member drafts a letter granting approval, and sends it to the Assistant RTSD Director, Compliance and Engineering for review. Once approved, the RTSD Assistant Director, Compliance and Engineering, or a designee, sends the letter to the MBTA via email.
- g. All CAP approval or rejection letters must be saved in the associated CAP folder located on RTSD's internal, shared drive.

## 3. RTSD Review for Closing CA or CAP

- a. Assigned staff tracks the CAP deadlines. RTSD will track the due dates of all CAPs and require MBTA to report on the status of each CAP during the Monthly Hazard Tracking meeting to check CAs and CAPs scheduled for closure in the next few months.
- b. MBTA must submit a letter requesting closure of a CA or CAP. The MBTA Safety Division must provide supporting documentation to RTSD via email when it requests CA or CAP closure.
- c. RTSD staff uses a CAP verification form when assessing a CAP for completion and saves it in the CAP file located on the shared drive.
- d. RTSD uses at least one of the following methods for verification, extension, and closure of MBTA's CAPs:
  - Inspection Field or on-site visits to monitor MBTA's progress.
  - <u>Documentation/Data</u> The review of MBTA-submitted documentation and data to support the actions described in the CAP. This can involve both RTSD and MBTA analysis of data submitted.
  - <u>Interviews</u> Speaking with an individual or group of MBTA employees to understand the effectiveness of the CAP and their understanding of the CAP.
  - Observation Observations may be announced and unannounced. RTSD observers do not provide formal input while observations are taking place, unless an immediate safety issue is identified.
  - <u>Testing/Measurement</u>- RTSD uses scientific methodology to confirm a CAP is effective at the time the measurement takes place.



- e. RTSD saves the verification criteria used, associated documents, and activity forms in the CAP file on its internal, shared drive.
- f. The assigned staff must review the MBTA's request to close a CA or CAP within 15 days of receipt and propose approval or rejection as set forth below.

#### F. CLOSURE OR REJECTING CLOSURE OF A CA OR CAP

Closing a CA. If RTSD determines that MBTA has provided sufficient evidence to support closing a CA, the assigned staff drafts the CA closure letter for review by the Assistant RTSD Director, Compliance and Engineering. The letter should state that although the CA is closed, the related CAP remains open. The RTSD staff member then develops an ongoing risk monitoring strategy and submit it to the Assistant RTSD Director for approval. The RTSD staff member enters the ongoing risk monitoring strategy into the Safety Risk Monitoring log and tracked as discussed in SOG Section 5.6.

<u>Closing a CAP</u>. If RTSD determines that MBTA has provided sufficient evidence to support closure of the CAP, the staff drafts the CAP closure letter for review by the Assistant RTSD Director. A CAP cannot be closed until all the CAs are closed. The RTSD staff member then develops an ongoing risk monitoring strategy and submits it to the Assistant RTSD Director for approval. The RTSD staff member enters the ongoing risk monitoring strategy into the Safety Risk Monitoring log and tracked as discussed in SOG Section 5.6.

The RTSD Assistant Director emails a CA or CAP closure letter to the MBTA Safety Division. RTSD staff saves a copy of the email in the associated CAP folder on its internal, shared drive.

If RTSD'S Assistant Director is not satisfied with MBTA's evidence and determines that the CA or CAP should remain open, then the RTSD Assistant Director or a delegee sends a letter to the MBTA Safety Division outlining any deficiencies and describing additional actions or evidence needed for closure.

RTSD and MBTA communicate until RTSD has sufficient evidence to close the CA or CAP. RTSD holds weekly (but no less than monthly, as the RTSD Director determines) CAP status update meetings where the relevant MBTA division delegates can present CAP material directly to both the MBTA Safety Division and RTSD.

#### G. POST-CAP CLOSURE MONITORING

#### 1. DOCUMENTATION

The assigned RTSD staff will ensure that the following documents are saved to the relevant CAP folder on the internal shared drive:

CAP Form



- RTSD's CAP review form
- RTSD CAP approval letter
- MBTA's written request to close the CAP with completion dates for each CA
- Evidence, supporting documentation, and field activities using the "Add Activity" action for each CA
- RTSD emails granting closure to each CA
- MBTA CAP form requesting closure
- RTSD letter granting closure of the CAP

The RTSD staff member assigned to CAP tracking verifies that all documents have been saved to the correct locations.

#### 2. FURTHER VERIFICATION

Following RTSD's approval and closure of a CAP, RTSD may continue to monitor MBTA's ongoing safety measures related to the CAP, if any, by methods including document review such as training records and materials, photos, or updated MBTA Standard Operating Procedure, and by conducting field activities such as inspections or interviews with MBTA personnel (including MBTA contractors). The hazard addressed in the CAP may become part of RTSD's SRM Monitoring activities or Risk-Based Inspection program, as data tracked on a regular basis as dictated by the nature of the hazard. Additional verification activities may be conducted upon CAP closure and transferred as action items under the safety risk management monitoring section (SOG Section 5.6)

#### H. MANAGING CAP DISPUTES WITH THE MBTA

220 CMR 157.07(7) provides the dispute resolution process for CAPs (see above). Typically, disputes are resolved through discussions and negotiations between the RTSD and the MBTA. The RTSD saves and archives all communications regarding a dispute in the RTSD shared drive or database, as determined by the RTSD Director. The RTSD may develop a CAP for the MBTA to implement if and when appropriate. RTSD may issue an Order for the MBTA to develop a CAP if and when appropriate.

# **Additional Documents**

None

## **Updates**

Initial Release September 1, 2021

January 18, 2024 – updated in accordance with FTA SD 22-8 Corrective Action Plan.

March 24, 2025 – revised



Section 5.6 Safety Risk Management Monitoring Process and Activities		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.01(3)	
Reference		
Federal Regulation	49 C.F.R. Part 674.25	
Reference		

#### . PURPOSE

Safety Risk Management Monitoring ("SRM Monitoring") activities are used by the Department of Public Utilities' ("DPU") Rail Transit Safety Division ("RTSD") to conduct safety oversight and enforcement of MBTA's Safety Management System ("SMS"), with a specific focus on Safety Assurance and Safety Risk Management. The Federal Transit Administration ("FTA") defines Safety Risk Management as a process within a transit agency's Public Transportation Agency Safety Plan ("PTASP") for identifying hazards and analyzing, assessing, and mitigating safety risk. 49 C.F.R. § 673.5. FTA defines Safety Assurance as the processes within a transit agency's SMS that function to ensure the implementation and effectiveness of safety risk mitigation and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information. 49 C.F.R. § 673.5.

#### II. REQUIREMENT

SRM Monitoring is part of the RTSD's oversight of the MBTA's execution of its PTASP pursuant to 49 C.F.R. Part 674.25 and 220 CMR 151.01(3). Please note that the terms *rail fixed guideway public transportation system*, *rail transit agency* ("RTA"), and *transportation authority* as used below each refer to the MBTA. Also, note that the terms *State Safety Oversight Agency* ("SSOA") and *Department* as used below each refer to DPU.

### 49 C.F.R. § 674.25 Role of the State safety oversight agency

(b) An SSOA must review and approve the Public Transportation Agency Safety Plan for every rail fixed guideway public transportation system within its oversight. An SSOA must oversee an RTA's execution of its Public Transportation Agency Safety Plan. An SSOA must enforce the execution of its Public Transportation Agency Safety Plan, through an order of a corrective action plan or any other means, as necessary or appropriate. An SSOA must ensure that a Public Transportation Agency Safety Plan meets the requirements at 49 U.S.C. § 5329(d).

(e) An SSOA has primary responsibility for the investigation of any allegation of noncompliance with a Public Transportation Agency Safety Plan. These responsibilities do not preclude the

<sup>&</sup>lt;u>See</u> FTA's Guide to Developing the Safety Risk Management Component of a Public Transportation Agency Safety Plan (August 2019) for a more detailed information about these safety concepts.



Administrator from exercising his or her authority under 49 U.S.C. § 5329(f) or 49 U.S.C. § 5330.

(f) An SSOA has primary responsibility for the investigation of an accident on a rail fixed guideway public transportation system. This responsibility does not preclude the Administrator from exercising his or her authority under 49 U.S.C. § 5329(f) or 49 U.S.C. § 5330.

### **220 CMR 151.01(3) Purpose and Scope**

The Department of Public Utilities ("Department") exercises jurisdiction over safety of equipment and operations of the Transportation Authority pursuant to M.G.L. c. 161A, § 3(i). In addition, pursuant to 49 C.F.R. Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.

### III. GUIDANCE

SRM Monitoring provides a framework for the RTSD to identify and assess the:

- Effectiveness of risk controls in MBTA's operations and safety programs.
- Conformance to expectations and/or the objectives of MBTA's safety programs or policies.
- Causes and contributing factors of MBTA's non-conformances and potential new hazards or threats.
- Necessary improvements for MBTA's operations and safety programs.
- Development of a risk-based approach to hazard identification and ongoing safety risk monitoring activities.

To increase oversight of risk, RTSD uses SRM Monitoring activities, data, and other targeted oversight activities to understand the state of the safety risk environment. RTSD's SRM Monitoring process includes on-site meetings and inspections of issues that either MBTA or RTSD identifies. SRM Monitoring helps RTSD to ensure that MBTA takes a proactive approach to SRM.

# A. INSPECTIONS

DPU, through its RTSD staff, regularly conducts inspections following SRM activities and other activities, which identify risk. An inspection is a formal examination under an established set of criteria. Inspections can take place under 3 primary types of field engagements.

1. <u>Scheduled inspections</u> are inspections conducted after RTSD staff provide more than five business days' notice to MBTA. Scheduled inspections may take place under some of the following activities: triennial audits, inspections requiring flagging support, field inspections jointly conducted with federal regulatory partners, and field verifications conducted jointly with MBTA.



- 2. <u>Announced inspections</u> occur when RTSD staff access MBTA property, including the right-of-way ("ROW"), with five or fewer business days' notice to MBTA. RTSD may request that MBTA staff provide support resources such as a flag person, MBTA divisional support, or additional MBTA personnel and resources.
- 3. <u>Unannounced inspections</u> occur when RTSD staff seek access to MBTA property, including the ROW, without prior announcement to perform oversight activities. Quality oversight requires RTSD to view the MBTA's system in its daily operational status without MBTA's advance preparation that may come from scheduled or announced inspections. MBTA will provide RTSD with full, unrestricted access to the entire MBTA transit system to include ROW, facilities, and stations that RTSD requires access to so it may complete the requirements of 49 C.F.R. Part 674 and state regulatory activities defined in 220 CMR 151.

Also, RTSD may conduct observations/oversight activities from public areas on or near the vicinity of MBTA property without any additional notification.

RTSD staff complete a Field Observation Form for each on-site inspection. The Field Observation Form is also be used when observing MBTA's track maintenance. Data from those forms is used to further assess MBTA's SRM program compliance.

If RTSD staff identifies a hazard or non-compliance during an on-site inspection, after the inspection RTSD staff immediately shares the information with RTSD Leadership. The RTSD staff communicates any critical safety issues to the MBTA personnel in the field (see SOG Section 2.7a). RTSD Leadership follows up with the MBTA Safety Division, requests MBTA response, and ensures documentation and follow-up is consistent with this Standard Operating Guideline ("SOG") Manual Section 5.6 and other SOG sections.

ROW access is addressed further in SOG Section 5.6a.

#### B. SRM DATA AND ANALYSES

RTSD gathers SRM data and information from a variety of sources, including:

- Investigations and Corrective Action Plans ("CAP") (SOG Section 5.1)
- Internal Audits conducted by MBTA Safety Division
- Triennial Audits (SOG Section 5.3)
- Daily Incident/Safety Event Log (e.g., Operations Control Center logs)
- MBTA Hazard Tracking System
- MBTA's safety reporting system
- Information collected through meetings with MBTA (<u>see SRM Meetings</u> and On-Site Activities, below)
- Safety event after-action meetings and hotwash reports
- Social media reports
- Inspections and other on-site activities



• Monitoring of MBTA's planning, design and implementation of system modifications, capital projects and Configuration Management

This is not an exhaustive list and new data sources may develop over time.

RTSD tracks SRM activities via RTSD's database<sup>22</sup> and other dashboards. Additionally, the RTSD collects and analyzes MBTA's internal risk management data from the MBTA's safety reporting system. Each SRM activity logged in RTSD's database can include basic information (e.g., date, location, MBTA rail line, etc.), any hazards that were identified, personal-protective equipment, other subject-matter specific checklists, and RTSD's general observations. RTSD may compare this SRM data against the MBTA Hazard Tracking System to assess and/or identify potential sources of risk that may require new or improved mitigation by MBTA.

### C. DATA SHARING BETWEEN MBTA AND RTSD

RTSD has real-time access to most MBTA internal database systems via virtual private network access. RTSD exports hazard data from the MBTA safety reporting system (one of the MBTA databases) at least weekly, with additional exports performed on an as-needed basis. RTSD exports incident data from the MBTA's incident tracking system on a weekly cadence, with additional exports performed on an as-needed basis. MBTA software product upgrades in the future may automate these efforts. See also SOG Section 5.8 (subsection 5.8.3) and the PTASP's risk-based inspection program ("RBI") Addendum for additional data sharing.

### IV. RESPONSIBILITIES

RTSD staff are responsible for entering relevant information into the RTSD forms regarding potential and existing safety issues observed through SRM Monitoring activities or discovered through data analysis. The completed forms are available and accessible to everyone in RTSD. The forms that capture SRM Monitoring activities include, but are not limited to:

- 1. Verification, Inspection, and Activities forms
- 2. Field Observation Form
- 3. Notice of Non-Compliance
- 4. Comment form (Document Review)
- 5. Resubmission Required form (Document Review)

This documentation is sent to the RTSD data analytics team for tracking, prioritization, and, for RBI, ranking and nomination for RBI activities.

# A. SRM MEETINGS AND ON-SITE ACTIVITIES

One database as of 2024 is Formstack, though references to Formstack database includes potential future software and database products that may replace Formstack from time to time.



RTSD staff collects SRM information during the following meetings it participates in and other on-site activities:

- 1. **Bi-weekly Safety Performance Review** RTSD meets bi-weekly with the MBTA Safety Division to discuss ongoing safety events, investigations, CAPs, hazards and other key items related to the safe operation of the MBTA transit system.
- 2. **Monthly CAP Meetings** RTSD generally meets with the MBTA to review CAP status on a monthly basis. However, to ensure consistency in CAPs or to address specific CAP compliance, these meetings may occur more often. RTSD identifies CAPs for discussion based on upcoming deadlines and any compliance reporting issues.
- 3. Safety Rules Compliance Program ("SRCP") Meetings The SRCP serves as the MBTA-wide reinforcement of rules and procedures through coaching and mentoring. This program also establishes a baseline of documentation that tracks individual employee compliance with operating rules absent an accident investigation. SRCP data is tracked and analyzed by MBTA to develop and implement new audits based on trends. MBTA maintains a SRCP Manual.
- 4. **ROW Safety Committee Meetings** As an observing member of the MBTA ROW Safety Committee, the RTSD periodically audits and analyzes work zone checklists used by MBTA before accessing the ROW.
- 5. **Monthly Hazard Tracking Meetings** RTSD and MBTA review hazards outlined in MBTA's monthly hazard tracking report and discuss specific hazards and MBTA's plans to mitigate them. <u>See</u> SOG Section 5.4.IV.B.
- 6. **Additional Meetings** Additional RTSD/MBTA meetings may include any or all levels of executive leadership, supervision, and staff related to the rail system operations, maintenance, command and control, capital projects, and infrastructure, to ensure an accurate understanding of the state of the rail system.
- 7. **Audits and Examinations** Audit and examination activities may be led by MBTA or RTSD and are usually targeted based on existing investigations or high-priority open or closed CAPs. <u>See</u> SOG Section 5.5 on CAPs. This activity might also include participation in MBTA's internal audit activities or follow-up of those activities.

#### B. SAMPLE AGENDA FOR SRM MEETING OR ACTIVITY

- Identify and review status of ongoing safety risks.
- Identify and review status of implementation of mitigations and/or CAPs. CAPs selected should cover topics that can be reviewed by examination, demonstration, or interview.
- Collect photographs.



- o Rail vehicles and work equipment
- o Buildings office and shops
- Yards
- Consider a need for any additional Technical Training Plan activities due for SSO program staff based on risks identified and discussed.

#### C. CORRECTIVE ACTIONS AND SAFETY RISK MITIGATIONS

#### GENERAL

Safety risk mitigations and corrective actions both play critical roles in SRM.

**Safety risk mitigation** addresses actual performance to ensure that the safety intent behind the requirements is met. It addresses the potential consequences of hazards in MBTA service delivery and operations, by one or more of the following:

- Eliminating the hazard;
- Reducing the likelihood of occurrence of the potential consequence(s) of the hazard; and
- Reducing the severity of the potential consequence(s) of the hazard.

Corrective actions address compliance with requirements. The role of corrective actions in SRM is to address deviations (i.e., non-conformities) from baseline requirements regarding human and/or technical resources, procedures, rules, etc. Under SRM, monitoring non-conformities against baseline requirements helps capture deviations that might detract from the effectiveness, or performance, of the safety risk mitigations. This allows for corrective actions to address the deviations and restore effectiveness of safety risk mitigations.

Corrective actions are closed after implementation, usually as part of a CAP. Upon closure of an MBTA CAP, RTSD may decide to integrate corrective actions into ongoing SRM Monitoring activities for a longer period of review. This provides RTSD the opportunity to ensure the mitigation remains successful, assess whether additional actions are required, or assess whether the CAP may need to be reopened. See SOG Section 5.5 - Corrective Action Plans and Corrective Actions. Such SRM Monitoring activities are documented by completing activity forms.

#### 2. RESPONSE

When RTSD initially identifies a specific potential safety risk, staff fills out a field observation form, or a form specific to the subject matter (e.g., track inspection) or location (e.g., carhouse). Staff record relevant notes in the form and MBTA's response (if any).



If RTSD determines that a potential risk progresses to the point that an immediate safety concern requires mitigation, RTSD informs MBTA Safety Division through the same process as non-compliance reporting in SOG Section 2.7a(3). MBTA must address the risk in a mutually acceptable timeframe; if a timeframe cannot be agreed upon, RTSD will exercise its authority to require an appropriate timeframe.

RTSD continues to monitor potential and ongoing safety risks through the following process. RTSD may: (1) actively monitor the potential risk through data collection and by gathering information on MBTA's SRM activities; (2) inspect, assess, and audit the potential risk; and (3) direct the MBTA to create a CAP based on RTSD's analysis of the risk or take other action consistent with DPU authority.

Safety risk mitigations are complete when the hazard or safety concern no longer exists at an unacceptable level. Mitigations may need to be modified over time if the risk level changes.

Both risk mitigations and CAPs are tracked in the Hazard Tracking System and MBTA is expected to report on both CAPs and ongoing risk mitigations during the monthly Hazard Tracking Meeting. Should RTSD determine that a risk mitigation is no longer effective, RTSD will require MBTA to revise its mitigation strategy. See SOG Section 5.4 for more information on hazard tracking.

#### D. DAY ORDER AND NIGHT ORDER REVIEW

A fundamental SRM Monitoring activity is ensuring initial planning and scheduling compliance with ROW access. RTSD currently receives the day and night orders through a shared mailbox assessable to the entire RTSD team. Through unannounced inspections of documents such as ROW logs, radio audits, and other criteria for verification, RTSD works to ensure that the day and night orders accurately represent the MBTA workers' access to the ROW on a given day. RTSD staff review the day and night orders prior to entering the ROW (see also, SOG Section 5.6a regarding RTSD access to the ROW).

RTSD staff review of MBTA's compliance with day and night orders typically consists of the following:

- 1. Obtain a copy of day and night orders;
- 2. Review of ROW access log;
- 3. Obtain a copy of toolbox briefing; and
- 4. Confirm with OCC dispatch that toolbox briefing occurred.

Additional components of the review may include field engagements, radio audits, and other individualized review processes.



## E. VEHICLE MAINTENANCE AND TESTING

RTSD periodically reviews MBTA's rail transit vehicle maintenance program, including MBTA's periodic testing of rail transit vehicle braking systems to ensure performance and to detect potential latent system failures. RTSD's process is a combination of requests for information and data on vehicle maintenance and testing using its information gathering authority, maintenance facility inspections, and review of MBTA programmatic, policy and protocol documentation.

# **Additional Documents**

None

## **Updates:**

October 18, 2021 – Initial Release January 18, 2024 – updated in accordance with FTA SD 22-8 Corrective Action Plan March 24, 2025 – revised



Section 5.6a Right of Way Access Policy	
Version Effective Date	September xx, 2024
Massachusetts Regulation	220 CMR 151.00
Reference	
Federal Regulation	49 C.F.R. part 674.25
Reference	

#### I. PURPOSE

This section describes the MA Department of Public Utilities' ("DPU") Rail Transit Safety Division ("RTSD") procedures for staff to access the Massachusetts Bay Transportation Authority ("MBTA") right-of-way ("ROW") when performing oversight and field verification activities.

#### II. REQUIREMENT

### **220 CMR 151.02 (Definitions)**:

Unannounced On-site Oversight Activity. That, as further outlined in Department's Standard Operating Guideline Manual, at any time or place, and without advanced warning, the Department may enter Rail Transit Agency-controlled property to conduct inspections, audits, observations, and investigations to determine whether the Rail Transit Agency is complying with 49 C.F.R. Part 674, applicable regulations, Department policies and procedures, and the Transportation Authority's operation and safety procedures.

### 220 CMR 151.07(3)(in part)

The Department may monitor the Transportation Authority's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the Department deems necessary or appropriate. Upon request, the Transportation Authority must allow the Department access to review the data used in the preparation of the CAP.

### 220 CMR 151.09(4)

The Department may conduct an independent investigation or oversee/monitor an investigation conducted by the Transportation Authority. The Transportation Authority shall provide to the Department, upon request, documentation, access to investigative sites, activities, and personnel involved in the investigative process. The Department and the Transportation Authority shall coordinate investigative activities prior to finalizing investigative reports.

### 220 CMR 151.10(2)(a)

(a) The ongoing audit program will include, but will not be limited to, the following on-site announced and unannounced activities: observations, inspections, investigations, audits, examinations, interviews, and testing.



#### III. GUIDANCE

For purposes of this Section 5.6a, ROW means the area used by a rail fixed-guideway public transportation system for the operation of its vehicles over railroad tracks.

RTSD staff are required as part of the Technical Training Plan to complete the MBTA's ROW Training and receive a ROW license. The ROW license allows RTSD staff to access the MBTA ROW to complete inspections and other RTSD activities. This license is valid for two years, at which time retraining is required. Access to the ROW also requires compliance with current MBTA ROW access policies and special orders, including those involving notification and flagging policies.

There are three types of access: scheduled ROW Access; announced ROW access; and unannounced ROW access. Documentation of findings and required personal protective equipment are also discussed below.

#### A. SCHEDULED ROW ACCESS

Scheduled ROW access is defined as access given after RTSD staff provide in excess of five business days' notice to the MBTA. Scheduled ROW access may take place for any authorized reason.

Scheduled access- as defined above follows this process.

- a. RTSD staff notify and provide the following information to the MBTA Director of Safety Documentation or their designee:
  - i. The locations of access;
  - ii. The times and dates of requested access;
  - iii. The general scope of work being conducted;
  - iv. Any additional MBTA personnel requested; and
  - v. Any MBTA documentation that is required to successfully complete verification activities.
- b. MBTA Director of Safety Documentation or their designee completes all internal MBTA notification processes to schedule ROW access.
- c. MBTA should confirm ROW permissions no later than 48 hours prior to the scheduled visit.

MBTA shall place RTSD staff on the day or night orders for the date access is requested. RTSD staff both verify the limits of authorization on the daily orders and physically maintain a copy of the orders on their person while on the ROW.

### B. ANNOUNCED ROW ACCESS

Announced access occurs when RTSD staff access the ROW with five or less business days'



notice and request that MBTA provide support resources that may include a flag person, MBTA divisional support, or additional MBTA personnel and resources.

The process for announced access is consistent with scheduled access, but the MBTA traditionally requires advanced notice for entry into the ROW access orders. Therefore, if the access is requested and the RTSD staff does not appear on the day or night orders when published, the procedure strictly follows the unannounced access policy discussed in the next section. Announced ROW access includes the following procedures:

- a. RTSD staff notifies and provides the following information to the MBTA Director of Safety Documentation
  - i. The locations of access;
  - ii. The times and dates of requested access;
  - iii. The general scope of work being conducted;
  - iv. Any additional personnel requested; and
  - v. Any MBTA documentation that is required to successfully complete verification activities.
- b. MBTA Director of Safety Documentation or their designee completes all internal MBTA notification processes to schedule ROW access.

### C. UNANNOUNCED ROW ACCESS

Unannounced access occurs when RTSD staff seek access to the ROW without prior announcement to perform oversight activities. Quality oversight depends on RTSD's ability to view the MBTA's system in its daily operational status. The MBTA is required, pursuant to Section II above, to provide the RTSD with full unrestricted access to the entire MBTA rail transit system including the ROW and facilities and stations so RTSD may fulfill the requirements of 49 C.F.R. Part 674 and 220 CMR 151.

- a. RTSD staff strictly follow the below procedures when requesting unannounced access. RTSD staff must notify the appropriate Operations Control Center ("OCC") Dispatcher before entering the ROW of the area they intend to enter.
- b. RTSD staff only requests OCC protection and ROW access **between two station locations**. RTSD staff may not request permission for the span of three stations or more. If working over the span of several stations, RTSD staff must notify OCC prior to entering a new segment.
- c. RTSD staff must have a RTSD assigned portable number, which is assigned to a working portable radio in their possession. RTSD staff must identify themselves by name and portable number to OCC. RTSD staff must identify what level of protection they will be using and inform OCC how many members are in their crew.



- d. RTSD staff must inform the OCC Dispatcher where they will first access the ROW and between what two points they will be working.
- e. Upon clearing a specific area, RTSD staff contacts the OCC dispatcher via radio and informs the OCC dispatcher that they are clearing one location and moving to another giving information about the specific location.
- f. Upon leaving the ROW, RTSD staff contacts the OCC Dispatcher via radio to call off the ROW and remove any protections.
- g. After the OCC Dispatcher grants permission to RTSD staff to access the ROW, RTSD staff, via a recorded phone line, use their radio as the primary means of communication with the OCC Dispatcher while entering or calling off the ROW.

#### D. DIVERSION AREA ACCESS

Diversion Area access is carefully monitored. When RTSD staff access the ROW within a diversion area, they:

- a. Attend a safety briefing by the MBTA Construction Logistics Supervisor before commencing work;
- b. Notify the MBTA Construction Logistics Supervisor before entering the ROW, if the briefing has already been completed; and
- c. After being granted authorization to access the ROW from the MBTA Construction Logistics Supervisor via telephone, RTSD staff use their radio to communicate with the MBTA Construction Logistics Supervisor when they are entering or leaving the ROW.

# E. DOCUMENTATION OF FINDINGS

Documentation of findings from RTSD visits (scheduled, announced, and unannounced) are documented in the RTSD's database reporting program. Potentially non-compliant conditions are documented on the RTSD's Field Observation Form and, if confirmed by RTSD Leadership, reported to MBTA Safety Division. For findings that are immediate safety concerns, follow guidelines for immediate hazards in SOG section 2.7a.

## F. REQUIRED PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment ("PPE") requirements are followed by RTSD staff when accessing the ROW. RTSD staff fully comply with the MBTA's November 1, 2022 (as may be amended) minimum PPE requirements for FTA-regulated rapid transit lines/light & heavy rail operations for personnel performing work within the ROW. PPE requirements for the RTSD staff follow MBTA's most recent rule book, addendums, or any additional special orders.



PPE	MINIMUM RECOMMENDED PPE TYPE
Hard Hat	OSHA 1910.135, ANSI Z89.1 and NFPA 70E 130.7, Type I, Class E
Safety Eyeglasses	OSHA 1910.133 and ANSI/ISEA Z87.1
Work Boot	OSHA 1910.136, ASTM F-2412-18a and ASTM F-2413-18 Composite Toe, EH-Electrical Hazard Resistant, PR-Puncture Resistant, Slip Resistant, 6-inch, Defined Heel
Upper Body Safety Reflective Garment	ANSI/ISEA 107 High visibility, yellow-green, retro reflective, Class 2, Type R, 5- point breakaway (vest only), "X" stripe pattern on back (MBTA requirement)
ADDITIONAL MBTA REQUIREMENTS FOR ROW ACCESS	MINIMUM ROW ACCESS REQUIREMENTS
Right-of-Way (ROW) License	MBTA valid (unexpired) ROW license on person (Employee and Contractor)
Flashlight (Hand-held)	ANSI/NEMA FL 1-2009 LED, Polypropylene industrial construction, 35 Lumens, 45 meters, 100 hours, Impact & Water resistant
Whistle	High-impact plastic, sharp loud blast, > 120dB, 3150 hertz tone preferred

RTSD staff are prohibited from using personal electronic devices while engaged in ROW activities, unless otherwise specifically authorized by the RTSD Director for inspection purposes.

# **Additional Documents**

None

# **Updates:**

March 24, 2025 – Initial Release



Section 5.8 Risk Based Inspection Program		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	220 CMR 151.00	
Reference		
Federal Regulation	49 U.S.C. § 5329(k); Federal Transit Administration Special	
Reference	Directive 22-34	

#### . PURPOSE

The Massachusetts Department of Public Utilities ("DPU") Rail Transit Safety Division ("RTSD") has prepared this Risk-Based Inspection Program Development Plan pursuant to 49 U.S.C. § 5329(k) and the Federal Transit Administration's ("FTA") Special Directive 22-34. The Bipartisan Infrastructure Law amended 49 U.S.C. § 5329 to require State Safety Oversight Agencies ("SSOAs") to conduct risk-based inspections of the rail fixed guideway public transportation systems that the SSOA oversees (here, the Massachusetts Bay Transportation Authority, ("MBTA")). The Bipartisan Infrastructure Law also directed FTA to issue a Special Directive to each SSOA in the country on the development and implementation of risk-based inspection programs. The SSOA for Massachusetts is the DPU. The Commissioners of DPU delegated those responsibilities to RTSD.

A risk-based inspection program uses qualitative and quantitative data analysis to inform ongoing inspection activities. Risk-based inspection programs are designed to prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk.

#### I. REQUIREMENT

29 U.S.C. § 5329

(k)INSPECTIONS.—

(1)Inspection access.—

(A)In general.—

A State safety oversight program shall provide the State safety oversight agency established by the program with the authority and capability to enter the facilities of each rail fixed guideway public transportation system that the State safety oversight agency oversees to inspect infrastructure, equipment, records, personnel, and data, including the data that the rail fixed guideway public transportation agency collects when identifying and evaluating safety risks.

(B)Policies and procedures.—

A State safety oversight agency, in consultation with each rail fixed guideway public transportation agency that the State safety oversight agency oversees, shall establish policies and



procedures regarding the access of the State safety oversight agency to conduct inspections of the rail fixed guideway public transportation system, including access for inspections that occur without advance notice to the rail fixed guideway public transportation agency.

# (2) DATA COLLECTION.—

- (A)In general.—A rail fixed guideway public transportation agency shall provide the applicable State safety oversight agency with the data that the rail fixed guideway public transportation agency collects when identifying and evaluating safety risks, in accordance with subparagraph (B).
- (B)Policies and procedures.—A State safety oversight agency, in consultation with each rail fixed guideway public transportation agency that the State safety oversight agency oversees, shall establish policies and procedures for collecting data described in subparagraph (A) from a rail fixed guideway public transportation agency, including with respect to frequency of collection, that is commensurate with the size and complexity of the rail fixed guideway public transportation system.
- **(3)INCORPORATION.**—Policies and procedures established under this subsection shall be incorporated into—
- (A) the State safety oversight program standard adopted by a State safety oversight agency under section 674.27 of title 49, Code of Federal Regulations (or any successor regulation); and
- **(B)** the public transportation agency safety plan established by a rail fixed guideway public transportation agency under subsection (d).
- (4)ASSESSMENT BY SECRETARY.—In assessing the capability of a State safety oversight agency to conduct inspections as required under paragraph (1), the Secretary shall ensure that—
- (A) the inspection practices of the State safety oversight agency are commensurate with the number, size, and complexity of the rail fixed guideway public transportation systems that the State safety oversight agency oversees;
- (B) the inspection program of the State safety oversight agency is risk-based; and
- (C) the State safety oversight agency has sufficient resources to conduct the inspections.

# (5) SPECIAL DIRECTIVE.—

The Secretary shall issue a special directive to each State safety oversight agency on the development and implementation of risk-based inspection programs under this subsection.

#### (6)ENFORCEMENT.—

The Secretary may use any authority under this section, including any enforcement action authorized under subsection (g), to ensure the compliance of a State safety oversight agency or State safety oversight program with this subsection.

#### 220 CMR 151.01(3):

The Department of Public Utilities (Department) exercises jurisdiction over safety of equipment and operations of the Transportation Authority pursuant to M.G.L. c. 161A, § 3(i). In addition, pursuant to 49 CMR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.



#### 220 CMR 151.02:

<u>Unannounced On-site Oversight Activity</u>. That, as further outlined in Department's *Standard Operating Guideline Manual*, at any time or place, and without advanced warning, the Department may enter Rail Transit Agency-controlled property to conduct inspections, audits, observations, and investigations to determine whether the Rail Transit Agency is complying with 49 CFR Part 674, applicable regulations, Department policies and procedures, and the Transportation Authority's operation and safety procedures.

# 220 CMR 151.07(1)(e):

- (1) The Transportation Authority must develop a written corrective action plan (CAP) reported on a Department-approved form to address hazardous conditions meeting certain Risk Assessment Codes specified by the Department, and identified through: . . .
- (e) Unannounced On-site Oversight Activities performed by the Department.

# 220 CMR 151.07(3), in part:

The Department may monitor the Transportation Authority's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the Department deems necessary or appropriate. Upon request, the Transportation Authority must allow the Department access to review the data used in the preparation of the CAP.

# 220 CMR 151.09(4), in part:

The Department may conduct an independent investigation or oversee/monitor an investigation conducted by the Transportation Authority. The Transportation Authority shall provide to the Department, upon request, documentation, access to investigative sites, activities, and personnel involved in the investigative process.

#### 220 CMR 151.10(5):

<u>Department Access to Information</u>. The Transportation Authority shall grant the Department access to information necessary to discharge the requirements set forth in the Program Standard including, but not limited to:

- (a) Reports generated and databases utilized to monitor the status and performance of the Transportation Authority's rail transit system;
- (b) All approved policies, procedures, directives, system element descriptions (general and technical), or documents that support the SSPP or PTASP;
- (c) The Transportation All-page System;



- (d) The Operations Control Center Log; and
- (e) Maintenance Databases.

#### III. GUIDANCE

#### A. AUTHORITY

The RTSD's authority to access MBTA facilities and information to perform its SSOA functions, including risk-based inspection ("RBI") functions, is explicitly stated in program standard regulations. These regulations, along with relevant provisions in MBTA's Public Transportation Agency Safety Plan ("PTASP") referenced below, provide RTSD with the authority it needs to access MBTA facilities and information for all SSOA investigative purposes. DPU promulgated regulations to provide such specific authority, under 220 CMR 151.00 *et. seq* (see above).

# **MBTA Transportation Agency Safety Plan**

Additionally, the MBTA's PTASP (currently titled the MBTA Transit Safety Plan) recognizes RTSD's legal authority, and states MBTA's compliance with such authority, on access to MBTA property and data.

Section 1 of the PTASP states, "[DPU's] authority includes the ability of DPU personnel to access MBTA facilities and property both with and without notice to inspect infrastructure, equipment, records personnel and data."

Section 6 of the PTASP states in part: "MBTA provides DPU access to documentation, investigation sites and fact-finding activities."

Section 6 of the PTASP states in part: "..., the DPU has the authority to enter MBTA facilities to inspect infrastructure, equipment, records, personnel, and data, including the data that MBTA collects when identifying and evaluating safety risks."

Together, the regulations and the PTSAP provide DPU with the requisite authority to access and inspect any part of the MBTA system or information that DPU deems necessary for performing its SSOA responsibilities.

#### B. SCOPE

The scope of RTSD access is defined in the applicable regulations. The scope of right of access is defined as:

• "[T]he Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan" (220 CMR 151.01(3));



- "[T]the Department may enter Rail Transit Agency-controlled property to determine whether the Rail Transit Agency is complying with 49 CFR Part 674, applicable regulations, Department policies and procedures, and the Transportation Authority's operation and safety procedures." (220 CMR 151.02 (Unannounced On-site Oversight Activities));
- "The Department may monitor the Transportation Authority's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the Department deems necessary or appropriate. . . [and] must allow the Department access to review the data used in the preparation of the CAP." (220 CMR 151.07(3));
- "The Transportation Authority shall provide to the Department, upon request, documentation, access to investigative sites, activities, and personnel involved in the investigative process." (220 CMR 151.09(4));
- "The Transportation Authority shall grant the Department access to information necessary to discharge the requirements set forth in the Program Standard including, but not limited to:
  - (a) Reports generated and databases utilized to monitor the status and performance of the Transportation Authority's rail transit system;
  - (b) All approved policies, procedures, directives, system element descriptions (general and technical), or documents that support the SSPP or PTASP;
  - (c) The Transportation All-page System;
  - (d) The Operations Control Center Log; and
  - (e) Maintenance Databases." (220 CMR 151.10(5)).

RTSD has the authority, both with and without advance notice, to conduct inspections of the MBTA system, activities, and documentation. Such authority is set forth in the following regulations:

- "[A]uthority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan." (220 CMR 151.01(3));
- "at any time or place, and without advanced warning, the Department may enter Rail Transit Agency-controlled property to conduct inspections, audits, observations, and investigations". (220 CMR 151.02 (Unannounced On-site Oversight Activities));
- "The Department may monitor [MBTA's progress on CAPs] through unannounced, onsite inspections, or any other means the Department deems necessary or appropriate. . . [and MBTA] must allow the Department access to review the data used in the preparation of the CAP." (220 CMR 151.07(3));
- "[MBTA] shall provide to the Department, upon request, documentation, access to investigative sites, activities, and personnel involved in the investigative process." (220 CMR 151.09(4));
- "[MBTA] shall grant the Department access to information necessary to discharge the requirements set forth in the Program Standard." (220 CMR 151.10(5).



In addition, the RTSD's SOG Sections 5.6 and 5.6a, set forth below in SOG Section 5.8.2, provide guidance and process for announced and unannounced inspections. Also, SOG Section 2.7a provides additional protocols and procedures for RTSD staff for conducting inspections of MBTA facilities.

All areas of MBTA's light rail and heavy rail systems subject to RTSD oversight may be included in RBI activities. This includes, without limitation, the MBTA Red, Mattapan Trolley, Green, Orange and Blue Lines, and all associated stations, right-of-way, carhouses, yards, Operations Control Center and other MBTA offices relevant to data and operations serving the transit system.

# C. PHYSICAL ACCESS

#### 1. ACCESS CREDENTIALS

To enable RTSD staff to conduct inspections, all RTSD staff members are issued MBTA badges as "public officials." These badges allow RTSD staff to access MBTA facilities, including stations, offices, the Operations Control Center, rail yards, and carhouses.

#### 2. TRAINING FOR SAFE ACCESS

All RTSD staff receive MBTA Right-of-Way ("ROW") safety training and obtained their MBTA ROW Initial Certification and MBTA ROW Addendum Compliant license card upon completion of the one-day MBTA safety training course (received same day as training). This license card allows RTSD staff access to ROW and carhouses. All RTSD staff are issued Personal Protective Equipment ("PPE") that meets MBTA safety specifications for access to all areas of the system, including composite-toe workboots with a defined heel, safety vest, hard hat, flashlight, whistle, and safety glasses.

#### D. CAPABILITY

RTSD staff have the capability to conduct inspections and investigations as part of RBI and Safety Risk Management ("SRM") monitoring. The RTSD staff consist of 20 staff as of this submittal, including field investigators and inspection staff, data inspectors and analysts, engineers, and 24/7 on-call staff.

On-call and field response staff have specialized equipment available at all times. Examples of these items include (some variation based on area of expertise):

- 1. A laptop computer
- 2. iPad
- 3. Portable radio



- 4. Measuring wheel
- 5. Track gauge measurement tool (Approximately 4.5' long)
- 6. Tape measure
- 7. String line
- 8. Camera
- 9. Tripod
- 10. All required PPE
- 11. Charging equipment.

# IV. RESPONSIBILITIES

#### A. INSPECTIONS

RTSD has authority to conduct inspections with and without notice, see SOG Section 5.8.III.A, above, which specifies the applicable state regulation sections and PTASP sections.

The process for inspections with and without notice is explained in detail in the SOG Sections 5.6 (subsection III.A) and 5.6a as part of RTSD's Safety Risk Management ("SRM") Monitoring program, as well as below under SOG Section 5.8.V.A.1. RTSD, through the Rail Transit Safety Division ("RTSD"), regularly conducts inspections (ongoing monitoring) following MBTA's SRM activities and other activities which identify risk. Data collected from these inspections may be part of the RBI program or may be used in RTSD's day-to-day SSOA responsibilities (e.g., to verify corrective actions or continued compliance with existing mitigation plans, or to require CAPs or other actions to address safety). Under MBTA's PTASP Section 6.5.2, MBTA acknowledges that "DPU has the authority and capability to enter MBTA facilities to inspect infrastructure, equipment, records, personnel, and data. . . ." Under the draft RBI Addendum to the PTASP, MBTA states it will comply with the inspection provisions applicable to MBTA in 220 CMR 151 and in RTSD's SOG including this section, SOG 5.8.23 These policies and procedures that address RTSD access to MBTA's rail transit system for risk-based inspections, both with and without notice, were developed in consultation with the MBTA.

#### 1. INSPECTIONS WITH AND WITHOUT NOTICE

RTSD has legal authority to conduct inspections of MBTA transit system property, equipment, infrastructure and practices, including MBTA records, with or without notice. Inspections may be scheduled, announced, or unannounced.

1. <u>Scheduled access</u> is when RTSD staff access the ROW or other MBTA transit system property after providing five or more business days' notice to MBTA.

Pursuant to 220 CMR 151.03(4) and (5), and 151.10(1), DPU will coordinate with MBTA to have MBTA update the PTASP to add the RBI Addendum during the 4<sup>th</sup> quarter of 2024.



Scheduled access may take place under some of the following activities (without limitation): triennial audits, inspections requiring flagging support, field inspections jointly conducted with federal regulatory partners, and field verifications conducted jointly with MBTA.

- 2. <u>Announced access</u> occurs when RTSD staff access the ROW or other MBTA transit system property with less than five business days' notice and request MBTA to provide support resources that may include a flag person, MBTA divisional support, or additional MBTA personnel and resources.
- 3. <u>Unannounced access</u> occurs when RTSD staff access the ROW or other MBTA transit system property without announcement to perform oversight activities. Quality oversight requires RTSD to view the MBTA's system in its daily operational status without MBTA's advance preparation that may come from scheduled or announced inspections. The MBTA will provide the RTSD with full, unrestricted access to the entire MBTA transit system to include ROW, facilities, and stations that RTSD requires access to so it may complete the requirements of 49 C.F.R. Parts 671 and 674 and state regulatory activities defined in 220 CMR 151.

#### 2. SCHEDULING INSPECTIONS

RTSD designated staff ("inspector") may perform an inspection of MBTA property, equipment, infrastructure and practices related to rail transit safety. For scheduled or announced inspections, the inspector may notify either MBTA Safety Division or the MBTA department scheduled for inspection. Generally, the format of notification will be email, though it may take other forms as appropriate. If accessing MBTA property where the general public is authorized to enter (e.g., a station platform or rail car in revenue service), the RTSD inspector may choose to not notify MBTA personnel, though the RTSD inspector may notify MBTA personnel as appropriate under the circumstances.

If a RTSD inspector determines that they require additional MBTA resources for a RTSD inspection, the RTSD inspector should generally expect to receive the requested MBTA support within 30 minutes of request. If after 30 minutes, MBTA has not yet provided the resources, and if the RTSD inspector determines that the delay is not reasonable under the circumstances, the RTSD inspector should notify their supervisor and inform them of the delay. The RTSD inspector and supervisor should determine the appropriate course of action, which may include the supervisor contacting MBTA Safety Division or other appropriate MBTA department to obtain the requested resources as soon as practicable. In all cases, the RTSD inspector may contact their supervisor or manager sooner than 30 minutes as appropriate, or longer than 30 minutes, based upon the circumstances. The RTSD inspector should notify their supervisor if they are still waiting for MBTA resources after 45 minutes, regardless of whether the circumstances seem reasonable, to determine next steps.



Inspections of documentation at administrative spaces may require an MBTA staff member to assist with providing the material for review. RTSD will coordinate any arrangements necessary through the MBTA Safety Division or the applicable MBTA department, typically by email or other method as appropriate.

#### 3. INSPECTION REPORTS

RTSD's RBI program called R.I.D.E (set forth below in Section 5.8.4) includes an inspection report. The RBI R.I.D.E. inspections will occur at least quarterly. R.I.D.E. uses a four-step process: Research, Inspect, Determine, and Enforce. At the conclusion of the RBI R.I.D.E. inspection and post-inspection determination phases, RTSD will create an RBI R.I.D.E. report summarizing the findings of the RBI activity and any enforcement measures to be taken. The length of time between the Inspect phase and the issuance of the RBI RIDE report will vary depending on the complexity of the hazard or risk investigated. The RBI RIDE report will summarize the major steps of the RBI R.I.D.E. process and include actual aggregate data gathered during the RBI process. The report's conclusions will be objective and supported by the data. The report typically will combine all inspection activities associated with an RBI topic; though as appropriate, RTSD may issue a report on a less aggregate basis. RTSD will send the RBI R.I.D.E report to MBTA's Chief Safety Officer. If a CAP is deemed necessary, RTSD will follow the procedures outlined in 220 CMR 151.07 and SOG Section 5.5 (Exhibit 5).

Separate from the R.I.D.E. investigation report, RTSD uses additional internal forms for its routine, SSOA day-to-day inspections of accidents/events, diversion work zones, CAP compliance, training center observations, OCC observations, Triennial Audit inspections, PTASP compliance and other standard SSOA oversight activities. These forms serve as RTSD internal inspection summaries for, among other things, data compilation and organization, tracking, compliance with FTA requirements, assessing MBTA's CAP and Investigation requirements, and other RTSD day-to-day SSOA analysis and decision-making.

## B. IMMEDIATE SAFETY CONCERNS

RTSD staff may exercise due diligence in light of their training and experience in evaluating the risk associated with the hazard and determine there is an immediate risk to life, safety, and/or a defect that should receive immediate action by MBTA to mitigate. In the event a hazard identified during an inspection poses a potential immediate danger to life or safety, the RTSD inspector will assess the situation to determine whether immediate notification to the MBTA Safety Division is required. If the situation is assessed to be an emergency, the RTSD inspector will end the inspection, move to a safe location as appropriate, contact the MBTA Safety Division, and direct an immediate response. The inspector will then notify their RTSD supervisor. If immediate notification is not required (e.g., the inspector determines there is no immediate danger), the inspector will notify the MBTA Safety Division immediately after the



inspection. RTSD will direct the MBTA to address the risk in a timeframe acceptable to MBTA and RTSD. If a mutually acceptable timeframe cannot be agreed upon, RTSD will exercise its authority to require an appropriate timeframe for MBTA to address the risk. The RTSD will continue to monitor potential and ongoing safety risks through the SRM monitoring process.

If RTSD staff is unsure whether what they observed constitutes a significant concern for life safety that needs immediate action by MBTA to mitigate, the staff should immediately contact their supervisor and/or manager to discuss the matter and obtain guidance.

#### C. EVENT VERIFICATION

RTSD uses a standard form to record details and verify effective repair of an event scene and to monitor and inspect defects. The form is designed to document follow-up on known issues, such as defects. RTSD has additional forms it uses to document and record inspection observations, depending on the nature of the inspection.

For event investigations, 220 CMR 151.09(3) requires that MBTA identify the factors that caused or contributed to the accident, and identify immediate corrective actions, findings, recommendations, and a CAP as necessary or as RTSD otherwise requires. SOG Section 5.1 sets forth RTSD's on-scene investigation response, including 24/7 on-call activity. SOG Section 5.1 also requires MBTA to submit a written preliminary notification summarizing the accident/incident and other basic information to RTSD via a Preliminary Notification Form. RTSD staff will log the preliminary notification information in the RTSD Rail Transit Database.

Once RTSD receives MBTA's final investigation report, a RTSD Investigator must complete the Independent Investigation Review Checklist to evaluate the sufficiency and thoroughness of MBTA's investigation and whether the findings of causation are acceptable. Any resulting corrective actions are tracked as described in SOG Section 5.5. Also, RTSD inspects or requires MBTA to inspect areas with similar characteristics to where an event occurred, as appropriate based on risk and the nature of an event, to determine if MBTA must mitigate additional areas to address the risk.

For verification and defect monitoring associated with CAPs, 220 CMR 151.07(2) contains CAP content requirements. Also, 220 CMR 151.07(5) requires that MBTA to provide RTSD with (among other things) written: (a) Verification that each corrective action described in the CAP has been implemented, and (b) Status reports as requested. SOG Section 5.5 contains the entire process of RTSD's CAP tracking, documentation, review, approval, closure and post-closure monitoring.

#### D. ONGOING MONITORING

The RTSD conducts routine SSOA, day-to-day ongoing and regular field observations (announced and unannounced), document reviews, and attends meetings to understand the state of the safety risk environment, monitor the physical aspects of the MBTA facilities and



equipment, and ultimately, ensure MBTA is operating safely and effectively in accordance with its own safety program, policies, and procedures. This ongoing monitoring occurs on a daily basis, including nights as needed during overnight maintenance diversions. RTSD's ongoing monitoring covers all aspects of the rail transit system, including but not limited to carhouses, the Operations Control Center, training sessions, diversion areas during track maintenance and repair, infrastructure, equipment and operations.

Additionally, RTSD's supporting documentation of its ongoing monitoring activities includes (but is not limited to):

- 1. Verification, Inspection, and Activities forms
- 2. Field observation form
- 3. Potential Non-Compliance (Finding for Management Review)
- 4. Comment form (Document Review)
- 5. Resubmission Required form (Document Review)

This documentation is added to the RTSD's Formstack database and sent to the RTSD data analytics team for tracking and prioritization, and is among the sources of information available for RBI program analysis (and for other SRM and compliance purposes).

#### E. DEFECT AND INSPECTION DATA

In accordance with 220 CMR 151.10(5) (RTSD Access to Information):

- a. **Defect Data**: Monthly by the 15<sup>th</sup> day of each month, MBTA will submit to RTSD (at a minimum) the following data in a tabular format, such as commaseparated value (CSV):
  - Maintenance records and all inspection data contained within the Trapeze and MaxTrax applications for defect tracking; and
  - records of revenue vehicles out of service.

RTSD will review MBTA work orders on an ad-hoc basis. MBTA will submit work orders to RTSD upon RTSD's request, in either digital or paper form as needed. RTSD will analyze, review, and track this data on a monthly basis following MBTA submission or updates, and will use the data to help focus inspections.

- b. **Inspection Data**: monthly by the 15th day of each month, MBTA via the MBTA-RTSD Shared Folder, and/or by other electronic means if requested by RTSD, will provide the following:
  - MBTA Inspection records (including all geometry reports and quarterly inspection reports);
  - Safety Inspection and report forms associated with safety oversight;
  - All speed restrictions; and



 Adherence to inspection schedules (including reports and documentation of inspections not performed and capital project schedules and progress).

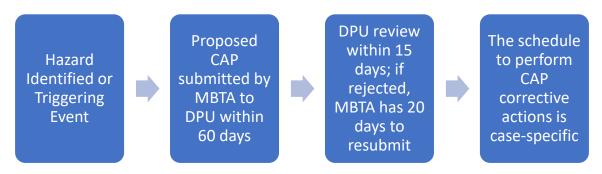
RTSD will analyze, review, and track this data on a monthly basis after MBTA submission or updates, and will use the data to help focus inspection efforts.

In addition, RTSD collects defect data through Hazard data from MBTA's Origami hazard tracking database. RTSD also pulls data from MBTA's defect tracking and correlated information, which RTSD has continuous access to. RTSD also pulls MBTA defect data associated with track inspections, to which MBTA assigns a track defects prioritization score. This prioritization score drives MBTA's Special Maintenance Repair Plan to prioritize defect repairs. RTSD has access to and reviews this data to prioritize its inspections. Tracking of corrective actions is addressed immediately below (and in SOG Section 5.5). Tracking of defects and remedial actions associated with events is addressed in 5.8.D above (and in SOG Section 5.1).

#### F. CORRECTIVE ACTION PLAN AND SAFETY RISK MITIGATION

#### 1. CORRECTIVE ACTIONS AND CORRECTIVE ACTION PLANS

DPU's regulation 220 CMR 151.07 and SOG Section 5.5 address Corrective Actions ("CAs") and CAPs. When RTSD determines that a CAP is required to address a hazard, including following an RBI activity, RTSD and MBTA follow the requirements and procedures in such regulation and SOG. RTSD enters MBTA's CAPs into the RTSD Rail Transit Database upon receipt. RTSD assigns each CAP a unique number. RTSD tracks CAPs and their respective CAs in a dashboard called "CAP Tracker" that is accessible to all RTSD staff.



RTSD reviews a proposed CAP to ensure it will sufficiently mitigate the hazard identified. If a CAP is insufficient, RTSD sends a rejection letter outlining the reason for rejection and requiring MBTA to revise and resubmit the CAP.

RTSD and MBTA discuss CAPs during regularly scheduled monthly and quarterly meetings. CAPs and CAs are also discussed in MBTA's PTASP Section 6.



# 2. SAFETY RISK MITIGATION

Following the closure of a CAP, the hazard addressed may become part of RTSD's SRM Monitoring activities as dictated by the nature of the hazard. RTSD's ongoing monitoring may assess MBTA's continuing safety measures related to a closed CAP, if any; such monitoring may include document review (e.g., training records, photos, updated MBTA Standard Operating Procedure or training material), and field activities such as inspections or interviews with MBTA personnel (including MBTA contractors). If newly collected data indicates an increase of a previously identified hazard or risk, RTSD may further investigate.

To ensure that MBTA is leveraging its data when determining probable cause and to support hazard identification, RTSD requires MBTA to report monthly on all hazards identified from a variety of sources, not just following safety events. Continuous monitoring of SRM and hazards helps to identify safety risk priorities and to ensure MBTA is meeting safety objectives. Using its Hazard Tracking database, MBTA creates the monthly hazard report referenced in SOG Section 5.4, and a monthly Summary Report of Accidents, Hazards, and Corrective Action Plans ("Summary Report"). MBTA will file the monthly hazard report with the RTSD at least one week prior to the monthly hazard tracking meeting.

#### G. DATA SOURCES

RTSD's primary data sources from MBTA, for the purposes of RBI, are MBTA incident and hazard data. These raw safety program data records are stored by MBTA in its safety reporting system. RTSD has direct electronic access to this safety reporting system, and self-collects data from it. RTSD's current extract, transform, and load ("ETL") cadence for safety reporting data is weekly. RTSD is working with MBTA to automate the data ETL process using an Application Programming Interface ("API") by the end of 2024. MBTA will provide RTSD with the data MBTA collects when identifying hazards and assessing and mitigating safety risk.

Incident and hazard data available to RTSD from the MBTA's safety reporting system includes, but is not limited to:

- Date, time, and location of incidents and hazards;
- Type of incident (e.g., near miss) and hazard (e.g., slip/trip hazard);
- Sources, risk ratings, associated consequences, and mitigations associated with hazards; and
- Associated CAPs.

Beyond incident and hazard data stored in the safety reporting system, there are other data sources available from MBTA that RTSD accesses when needed, including other safety program data, maintenance data, and inspection data. These data sources include, but are not limited to:

- Geographic information systems ("GIS") data;
- Rail transit vehicle data, such as:
  - O Vehicle "download" data following a safety event;



- o Maintenance records; and
- o Inspection records;
- Track inspection reports, including results of rail geometry scans;
- Employee records;<sup>24</sup>
- MBTA Safety Division preliminary notifications and final investigative reports;
- Safety Rules Compliance Program reports and inspections;
- Operations Control Center alerts; and
- Rail transit operations data available through MBTA's Blue Book.<sup>25</sup>

For additional information regarding MBTA data sources to which RTSD has access when requested, see MBTA's PTASP Sections 2 and 6. MBTA must provide RTSD with all the data referenced above and in PTASP Sections 2 and 6 when RTSD requests, if RTSD does not have direct electronic access.

RTSD may receive data from MBTA for the purposes of RBI through a variety of processes, including, but not limited to:

- Self-Collection
  - o RTSD is given direct access to data for download and analysis.
- Application Programming Interface ("API")
  - o RTSD and MBTA systems are connected to enable RTSD's automated extraction of data on a scheduled or "ad hoc" basis.
- Request for Information ("RFI")
  - o RTSD requests information from MBTA and requires MBTA to provide the data to RTSD within a set time period. The RFI timelines that MBTA must respond are 24 hours, 72 hours, and five business days, as selected by RTSD per request. MBTA is required to provide the data pursuant to 220 CMR 151.10(5), and other applicable regulations, all previously referenced in 5.8.1 above.
- CAPs or Investigations
  - Pursuant to a CAP closure request or RTSD-overseen investigation, MBTA may be required to provide data to RTSD.
- Voluntary Provision
  - MBTA voluntarily provides data to RTSD without a formal request or requirement to do so.

Additionally, RTSD produces data via its own routine field observations, power inspections, carhouse and yard visits, track walks, station inspections, and other safety assurance activities.

\_

Sensitive information not required for risk-based analysis, such as the name of an injured employee, is redacted by MBTA on these records.

https://mbta-massdot.opendata.arcgis.com/



RTSD collects this data via field observation forms which are always available and used by RTSD for analysis including RBI analysis.

# H. RBI DATA MANAGEMENT SYSTEM

The RTSD developed an interactive RBI Dashboard tool to serve as its RBI Data Management System. RTSD tracks MBTA incident and hazard reporting trends and visualizes these trends using the RBI Dashboard. The RBI Dashboard is built using PowerBI, a Microsoft business intelligence tool.

Data sets are stored within the RBI Dashboard's semantic model. The RBI Dashboard visualizes the data stored in the model and allows for trend analysis and GIS visualization (e.g., RTSD can view a heatmap of incident locations overlayed on a map of the MBTA system). The semantic model and the RBI Dashboard itself are hosted in Microsoft's Azure Government Community Cloud<sup>26</sup> ("GCC"), designed for state government agencies like RTSD. The semantic model is organized using an industry best practice "star schema."<sup>27</sup> This allows the RTSD's semantic model to scale gracefully, ingest more and more data from MBTA and other sources, and allows for more granular analysis and predictive modeling using the RBI Dashboard.

RTSD Principal Safety and Risk Management Analyst, or other employee designated by the RTSD Director, is the primary individual responsible for maintenance of the RBI Dashboard and the semantic model. RTSD will periodically audit the RBI Dashboard and semantic model to ensure the records contained within accurately align with records maintained by MBTA, both in count of records and accuracy of content. The RBI Dashboard, including any safety-sensitive information contained within, is protected by Microsoft's Azure GCC, which is designed to securely segregate government data within its commercially available public cloud.

All records within the RBI Dashboard, including the semantic model itself, are retained in accordance with the Commonwealth's Public Records and Records Retention Laws. The RTSD retains all records for a minimum period of 3 years (some records are required to be kept for 5 years or permanently). Additionally, the RBI Dashboard, the semantic model, Personally Identifiable Information and Sensitive Security Information, and use by all RTSD users are subject to the security policies of the Massachusetts Executive Office of Energy and Environment Affairs ("EEA") and the Massachusetts Executive Office of Technology Services and Security's Acceptable Use of Information Technology Policy.<sup>28</sup> The RBI Dashboard and

https://learn.microsoft.com/en-us/office365/servicedescriptions/office-365-platform-service-description/office-365-us-government/gcc

https://learn.microsoft.com/en-us/power-bi/guidance/star-schema

https://www.mass.gov/doc/is002-acceptable-use-of-information-technology-policy/download



any system adopted by RTSD for data management will accurately store records according to the policies contained herein.

As RTSD captures all data through one management system, this system will store data in accordance with the risk-based inspection data management policies identified in this section.

#### I. RTSD'S USE OF RBI DASHBOARD

The RBI dashboard allows RTSD to create impactful reports to aid in identifying potential RBI activities and to facilitate the analysis portion of RBI. RTSD's RBI Dashboard ingests data into its semantic model from MBTA's safety reporting system that contains digital records of rail safety incidents and hazards.<sup>29</sup> This allows RTSD to integrate its inspection reports with MBTA data and explore trends systemwide using a variety of categories and factors. RTSD can compare safety trends in MBTA data with RTSD's historical inspection reports of the same or similar impacted subjects or locations to determine if data trends are backed by RTSD's previous inspection observations.

RTSD also uses the RBI Dashboard to connect related data sets and create "breakout" dashboards for granular visualization, like maintenance data and GIS/location-based data, as needed for risk analysis. RTSD also uses the RBI Dashboard to identify areas with similar characteristics or trends to those where incidents occurred and hazards identified, and determine whether MBTA should mitigate safety risks in these additional areas to prevent future safety incidents or hazards from occurring.

DPU's RBI Dashboard and associated semantic model are adaptable for use with any software MBTA may elect to use in the future.



#### J. PRIORITIZATION PROCESS

#### 1. OVERVIEW

RTSD administers its day-to-day SSOA responsibilities as required under 49 C.F.R. Part 674, and conducts daily inspections of portions of MBTA's rail transit system (e.g., inspection of or for accidents/events, diversion work zones, CAP compliance, training center observations, OCC observations, Triennial Audits, PTASP compliance and other routine SSOA oversight activities). In addition, RTSD developed a special RBI program called R.I.D.E, set forth below. R.I.D.E. uses a four-step process: Research, Inspect, Determine, and Enforce.

# R - Research

This is the opening phase of the process. In this phase, DPU analyzes Hazard and Incident risks, generates a short list of candidates, learns more about each on the short-list, and selects one or more for RBI inspection. The selected risk is further researched including current status and any associated incidents and hazards.

#### D – Determine

This is the wrap up phase of the process. In this phase, the R8I Team and assigned staff bring together information and make determinations about the risk.

# I – Inspect

This is the primary phase of the process. In this phase, the RBI Team and assigned staff conduct inspections to determine the status of the risk and its associated incidents and hazards.

#### E – Enforce

This is the reporting phase of the process. In this phase, the RBI Team and assigned staff will create a brief report summarizing their findings and any enforcement measures to be taken.

During the **Research phase**, RTSD staff perform in-depth analysis and research to identify safety hazard and incident risks, learn more about the severity, frequency, locations and context of risks, and narrow down and select a risk/activity for the RBI R.I.D.E. inspection. RTSD also requests information from MBTA if needed.

During the **Inspect phase**, RTSD staff conduct inspections to determine the current status of the risk and associated hazards or safety events. During this phase, RTSD staff completes a Field Observation Form for each on-site inspection. RTSD integrates data collected from field observation forms with MBTA's safety data and event reporting data, to create a holistic picture of a reported hazard or risk.

During the **Determine phase**, RTSD reviews all information from the previous phases and determines mitigation steps. If RTSD determines a high risk, for instance, a CAP would be required, introducing the Enforce Phase. If the risk is determined to be low, RTSD may send recommendations to the MBTA to mitigate the risk.

Finally, in the **Enforce phase**, RTSD will create a brief report summarizing the findings of the RBI activity and any follow-up measures. The length of time between the conclusion of the



Inspect phase and the issuance of the final report will vary depending on the complexity of the hazard or risk investigated. The report should summarize each step of the RBI process and include actual aggregate data gathered. The report will be objective and only reach conclusions that are supported by the data. RTSD will send this report to MBTA's Chief Safety Officer. If a CAP is necessary, RTSD follows the procedures outlined in 220 CMR 151.07 and SOG Section 5.5.

# 2. DATA ANALYSIS AND SAFETY CONCERN PRIORITIZATION RATING PROCEDURE

RTSD's RBI program is data driven. Potential RBI activities are identified early in the Research phase of R.I.D.E., using the interactive RBI Dashboard (which connects to MBTA's safety reporting system data) to explore trends. The RBI Dashboard also allows RTSD to connect related data sets to power "breakout" dashboards for granular visualization of niche items like maintenance data and GIS/location-based data, as needed for risk analysis.

RTSD's analysis starts with the initial risk level as categorized for hazards and incidents (see next two paragraphs), then advances to a more granular analysis of facts for additional context and risk refinement. Data analysis is conducted throughout the year. The safety data RTSD uses is the MBTA's safety reporting system raw data, MBTA's CAPs, hazards from the MBTA's Hazard Tracking Logs, and historical incident data (including any past RBI activities). RTSD analyzes specific risk conditions from all the data sources.

For RBI activities sourced from **hazards**, risk is analyzed by the combination of the severity of the consequence and the probability (frequency) of it occurring. High risks are red level hazards, serious risks are orange, medium risks are yellow, and low risks are green. RTSD uses the risk level assigned by MBTA through its risk matrix in the PTASP, though RTSD may choose its own rating for RBI if it disagrees with MBTA's rating.

RTSD uses its RBI dashboard to show occurrence rate of the hazard type, and any previous RTSD inspections related to the hazard, which are folded into the RBI analysis along with the underlying hazard report data from MBTA. RTSD develops a short-list of high and serious hazards for further analysis. RTSD further analyzes for risk rating, using as criteria whether the hazard:

- Involves potential for illness, injury or death of any person;
- Involves the potential for damage of equipment or assets or poses a public safety risk;
- Is likely to lead to an incident;
- Is systemwide; and



- Has been previously evaluated by an RBI activity?

One or more of the high risk hazards (or serious risk hazards if not enough high risk hazards are determined) are proposed for potential RBI inspection (to be further analyzed against incidents selected for potential inspection).

For RBI activities sourced from **incidents**, RTSD organizes MBTA incident types into "high", "serious", "medium", and "low" risk priority buckets (e.g., collisions and derailments are high risk while staircase-related incidents are low risk). Incident types means general categories of incidents. See Exhibit 15 (RBI Risk Levels for Incident Type). The incident types mirror MBTA's incident types, though RTSD determines the level of risk for each type. RTSD's RBI Risk Levels for Incident Type (Exhibit 15) is a continuously evolving document that RTSD will adjust based on data and risk understanding. RTSD will continue to develop a data set to determine the frequency and severity of the listed incident types. RTSD will annually adjust the document's incident type risk levels based on a frequency and severity basis for risk, and may further subdivide the incident types into more specific incident types to better reflect risk. RTSD develops a short-list of high and serious Incidents for further RBI analysis. As with hazards described above, RTSD further analyzes incidents for risk rating, using the same criteria as for hazards (in the prior paragraph). One or more of the high risk incidents (or serious risk if not enough high risk incidents are determined) are proposed for potential RBI inspection.

Based on the above analysis and narrowing down based on risk, RTSD Leadership evaluates and selects at least one hazard or incident for further development of a R.I.D.E. plan and inspection.

#### 3. INSPECTION PRIORITIZATION

For the RBI program, RTSD uses a hybrid of two risk rating scales (hazards and incidents) identified immediately above. This allows RTSD to group hazard and incident risks into comparable priority categories, as depicted in the Table below.

RBI Priority	Hazard Risk Rating	Incident Risk Rating
High	High (red)	High
Serious	Serious (orange)	Serious
Medium	Medium (yellow)	Medium
Low	Low (green)	Low



MBTA-rated high risk hazards and RTSD-rated high risk incidents would be high priority for RBI inspections. MBTA-rated serious risk hazards and RTSD-rated serious risk incidents would be second level priority for RBI inspections. MBTA-rated medium risk hazards and RTSD-rated medium risk incidents would be third level priority for RBI inspections. MBTA-rated low risk hazards and RTSD-rated low risk incidents would be low priority for RBI inspections.

RTSD Leadership reviews the short-listed hazards and incidents proposed for potential inspection, and associated analysis/research, and select at least one for the RBI inspection program and further development under R.I.D.E.

After RTSD selects a risk for RBI inspection, RTSD determines the best skillsets needed for the inspection(s), assembles the inspection team, and sets the inspection scope and strategy to match the infrastructure and/or operations to be inspected.

#### 4. FREQUENCY

RTSD imports data from the MBTA's safety reporting system on demand and for the RBI R.I.D.E. program will analyze the results of these queries each quarter (every three months) of the fiscal year and then plan for the following quarter. RTSD will conduct risk-based inspections as specified in this section on a quarterly basis at a minimum. RTSD will annually review the RBI prioritization processes and update with revised language for this SOG 5.8, as necessary.

The particular RBI program inspections referenced above will be in addition to the safety risk inspections (ongoing monitoring) that RTSD conducts on a daily, routine basis of MBTA operations, facilities, equipment and compliance.

The RBI system is structured in such a way that the results of an RBI activity flow seamlessly from RTSD's existing SRM Monitoring activities and into RTSD's CAP oversight process (as warranted), which in turn, evolves into additional effective state safety oversight.

#### K. SYSTEM CHARACTERISTICS

RTSD has an inspection process, and developed a robust RBI program, that is commensurate with the demands, complexity and full spectrum of one of the oldest and busiest transportation systems in the country.

The MBTA rail transit system consists of the following, and RTSD will administer its RBI program commensurate with the complexity and full spectrum of the MBTA rail transit system:

#### HEAVY RAIL

MBTA's heavy rail operations consist of three lines: Red, Orange, and Blue. These lines are powered by third rail and overhead catenary (Blue Line only) systems. The MBTA is challenged with an aging fleet that is scheduled to be replaced in phases over the coming years. To ensure



the best risk-based oversight, the RTSD staff includes engineers that are subject matter experts in the track, power systems, and signal system of the heavy rail lines. RTSD also employs an experienced vehicle engineer. Together, the RTSD staff focuses on opportunities for risk identification and mitigation associated with these lines.

#### 2. LIGHT RAIL

MBTA's light rail operations consist of two lines: the Green Line, established in 1897 (the oldest in the nation) and the Ashmont-Mattapan High-Speed Line (also known as the Mattapan Trolley, an extension of the Red Line). These lines are powered by overhead catenary systems. Vehicle replacements on these lines are projected for future years. To ensure best risk-based oversight of light rail systems, RTSD staff includes engineers that are subject matter experts in the track, power system, and signal system on these lines, along with an experienced vehicle engineer. Together, the RTSD staff focuses on opportunities for risk identification and mitigation associated with these lines.

#### 3. INFRASTRUCTURE

MBTA has a total of 137 transit rail stations, 13 rail yards, and approximately 137 miles of infrastructure track. All areas of MBTA rail transit infrastructure are subject to RTSD inspection and investigation. RTSD's RBI program encompasses the identification of inspection priorities, the development of inspection plans, and the execution of inspections based on the risk profile of various components and operations within the transit system based on the complexities identified above.

#### L. CONSISTENT AND ONGOING INSPECTIONS

RTSD uses an Agile Methodology approach to RBI – breaking activities into phases, emphasizing collaboration between team members across multiple disciplines, and fostering an environment of continuous improvement to respond to changing conditions. RTSD uses the dashboard for the RBI program on a quarterly basis. RTSD uses data insights gleaned from our RBI Dashboard to rank incidents and hazards by type, frequency, and severity over a set period of time for the RBI program (as discussed above in 5.8.4). RBI program inspection priorities will occur at least quarterly.

Additionally, RTSD's RBI Dashboard is useful for RTSD beyond the RBI program, and RTSD uses it to "dive in" to explore trends on a daily or weekly basis as part of RTSD's routine, day-to-day SRM Monitoring activities. In addition to the RBI program, RTSD uses the RBI Dashboard to identify routine, day-to-day inspection needs and priorities for the engineering and inspector staff. Routine, day-to-day inspections are also prioritized based on CAP verification, accidents and events for RTSD's 24/7 on-call staff and backup support as needed, investigations, investigation report verification, audits, maintenance and diversion work zones, and other



sources of risk and SSOA required oversight. These data sources include but are not limited to safety, maintenance and inspection data. RTSD's ongoing safety risk management monitoring program is identified in the Program Standard in SOG 5.6 (subsections III and IV).

#### INSPECTION OF FULL SPECTRUM OF RTA ACTIVITIES

Routine, day-to-day inspections cover the full spectrum of MBTA rail transit activities. The activities include but are not limited to operations for all light and heavy rail lines and associated activities, such as train speed, train bunching, operations safety rules compliance, hours of service and fatigue management, roadway worker protection, OCC, as well as revenue operations and non-revenue maintenance and diversion work-zone activities. RTSD's inspections also cover all infrastructure and equipment, including but not limited to track, signal systems, traction power systems (including third rail, catenary and pantograph), rail cars and components, carhouses, yards, lighting, and fire safety equipment.

Similarly, the RBI program inspections cover the full spectrum of RTA activities, and are prioritized based on safety, maintenance and inspection data.

#### ADAPTIVE INSPECTION PLANNING

The RTSD employs an adaptive inspection planning approach that allows for the adjustment of inspection frequencies and scopes based on changing risk profiles and emerging safety issues within the MBTA transit system. Strong data collection and analysis practices ensure that areas of concern are successfully monitored, even after an RBI activity concludes.

RTSD's RBI program and regular inspection program are structured to be strategic and adaptable.

#### M. WORKLOAD ASSESSMENT AND STAFFING

RTSD conducts RBI by integrating multiple full-time employees across disciplines. RTSD prepared a workload assessment in April 2024 using the template FTA instructed RTSD to use for its RBI plan. As of August 30, 2024, the RTSD consists of 20 full time RTSD employees, plus additional contractor support as needed. The 20 RTSD employees include three full-time positions focused on data, risk and inspection prioritization: "Risk-Based Inspection Supervisor", a "Principal Safety and Risk Management Analyst" and a "Field Compliance Data Specialist". RTSD staff also include experienced engineers with subject matter expertise in MBTA track, power, signal and vehicle systems. Additionally, all current staff are on track to complete their PTSCTP within three years of employment, as required by 49 C.F.R. Part 672. The total employment count excludes additional RTSD resources that also support the RTSD including:



Commissioner, Chief of Staff, General Counsel, Chief Deputy General Counsel, Chief Financial Officer, Director of Communications, and Director of Legislative Affairs.

The responsibility of updating and maintaining implementation plans and procedures for new safety duties related to RBI and other new rules falls within the RTSD Leadership team. In preparation for this increased responsibility, in January 2023 RTSD established and filled a Director of Rail Transit Safety and a second Assistant Director of Rail Safety, increasing the Leadership team from one member to three members (consisting of the RTSD Director, Assistant Director of Compliance and Engineering, and Assistant Director of Safety Assurance). In 2023, the RTSD also hired two dedicated attorneys, an Assistant General Counsel and Counsel II.

In preparation to design, maintain, and update a data management system in accordance with RBI data management policies and procedures, the RTSD posted a full-time position for Principal Safety and Risk Management Analyst, which was filled in April 2023. This position leads the review of data science and RBI program dashboards. An additional analyst position to support this role was filled in mid-2024.

The core function of establishing a conduit from the MBTA data to the RTSD's systems is assigned to the RTSD's safety assurance team. This staffing structure prepares RTSD to obtain and analyze comprehensive data from MBTA, including but not limited to, safety, maintenance, and inspection data, as well as other available data-sets on an ongoing basis. This responsibility is shared with three other full-time employees assigned to the safety assurance team.

The RBI Program Supervisor position was established to coordinate the RBI program, including to document and update RBI schedules based on ongoing inspection prioritization and safety concern analysis.

On October 23, 2023, the RTSD finalized a scope of work for a consultant so that the RTSD can continue to support program development by gaining additional expertise within the risk prioritization field. The RTSD tasks the consultant with delivering the following:

- Hazard and Risk Assessment Methodology Plan;
- Comprehensive Risk Assessment Reports, including prioritized hazards and risks;
- Recommendations for Risk Mitigation and Resilience Measures;
- Updates to training and associated coaching within the RTSD program standard; and
- Training materials and sessions for the RTSD team.

As a whole, the RTSD staff maintains the qualifications and capability for conducting risk-based inspections commensurate with the complexity of the MBTA system and to cover the full spectrum of MBTA activities and technical disciplines (data analysis, risk assessment, track, power (overhead/third rail/substation), signals, vehicles, operations, communications, equipment, safety, etc.).



#### N. TECHNICAL TRAINING PLAN

#### 1. TRAINING AND QUALIFICATIONS

In July 2023, the RTSD submitted an updated and finalized technical training plan ("TTP") to FTA for approval under Special Directive 22-13. FTA acknowledged the following good practices within the TTP:

- All 49 C.F.R. § 673 required training/competency elements are listed, plus six RTSD-specific training/competencies.
- Requires MBTA "to complete applicable training."
- All State new hires receive 34 hours of mandatory onboarding.
- Each RTSD new hire is assigned a mentor.
- RTSD has access to MBTA's Learning Management System, "MassDOT's Learning Hub."

FTA approved the above-referenced TTP in January 2024. Subsequently, at FTA's direction for purposes of this RBI Plan, RTSD prepared an additional TTP using a separate FTA template. Training certificates of each RTSD staff are tracked and retained by the RTSD Compliance staff.

This training plan is designed to support the current RTSD growth and the continued development of the program.

# **Additional Documents**

• Appendix F: RTSD Risk Levels for Incident Types

# **Updates:**

March 24, 2025 – Initial Release



Section 5.9 - Inspection and Verifications Plans		
Version Effective Date	March 24, 2025	
Massachusetts Regulation Reference	G.L. c. 159, §§ 39, 40; G.L. c. 161A, § 3(i) Inspection and Verification Plans are not referred to in the Program Standard but may be added during next rulemaking.	
Federal Regulation Reference	See FTA Special Directive 22-8, Notice No. 1	

#### I. PURPOSE

The purpose of an inspection and verification ("I&V") Plan is to describe the specific processes and procedures that the Department of Public Utilities ("DPU") uses to validate the implementation of each corrective action plan ("CAP") developed by the Massachusetts Bay Transportation Authority ("MBTA"). This process was established in response to the Federal Transit Administration's ("FTA") Special Directive to DPU to establish a process for verifying the implementation of MBTA CAPs associated with Special Directives 22-4, 22-5, 22-6, and 22-7. These Special Directives were a part of FTA's 2022 Safety Management Inspection ("SMI") of MBTA's rail systems.

# II. REQUIREMENTS

Per FTA Special Directive 22-8, Notice No. 1, RTSD provided to FTA an inspection and verification plan that outlines the processes and procedures RTSD utilizes to review and close each MBTA CAP associated with Special Directives 22-4, 22-5, 22-6, and 22-7. RTSD adopted the use of I&V plans for targeted oversight activities as part of its Safety Risk Management ("SRM") Monitoring.

#### III. GUIDANCE

This section is closely related to SOG Section 5.5 on Corrective Action Plans and SOG Section 5.6 Safety Risk Monitoring Process and Activities.

The following list provides general attributes of an I&V Plan:

- An I&V Plan is used to verify that MBTA has completed all actions in a CAP and to determine if a CAP may be closed.
- An I&V Plan should be developed concurrently or soon after reviewing and approving each CAP proposed by MBTA.
- I&V Plans are usually comprised of a number of SRM Monitoring activities including safety related data and analysis, formal meetings (in person or virtual), and field visits for observations and examinations.



- I&V activities should be designed to verify specific aspects of a CAP, including each corrective action.
- I&V Plans are executed by RTSD. Some aspects of the I&V Plan are expected to be performed in coordination with or with the cooperation of MBTA, while others may be performed without informing MBTA.
- After a CAP is closed, a Safety Risk Management Monitoring Plan is used to monitor the closed CAP and the related risks or hazards associated with the CAP.

#### IV. RESPONSIBILITIES

**Director:** Rail Transit Safety Division's ("RTSD") Director is responsible for the overall execution of an I&V Plan. The RTSD Director reviews and approves all I&V Plans drafted by staff.

**Safety Oversight Staff:** All RTSD staff members are likely to participate in I&V Plan activities to some extent. If a staff person is assigned to oversee the implementation of a CAP, it is also their responsibility to draft the I&V Plan for that CAP. The I&V Plan should be reviewed and approved by the RTSD Director. Multiple staff may participate in the I&V Plan development and activities.

#### A. PLANNING AND SCHEDULING

I&V Plan activities that require the MBTA's participation or presence should be conducted at a time when MBTA staff are available. Proper planning should reduce the number of I&V Plan activities that are not completed due to MBTA staff unavailability. It is RTSD's intent to minimize the impact that these activities may have on the day-to-day operations of MBTA, when possible.

Announced, Scheduled, and Unannounced activities are described below.

- **Announced:** These activities are scheduled and coordinated between RTSD and MBTA in advance. MBTA is informed of the subject matter, location, and time to ensure the availability of records, equipment, officials, or persons to be interviewed, and to ensure the efficient use of staff time.
- Scheduled, but unannounced subject matter: RTSD may schedule an appointment at the MBTA but need not fully inform the MBTA of the exact subject matter of the observation or examination. This approach should be used if staff would otherwise conduct an unannounced visit, but the presence of specific MBTA resources is necessary or if an MBTA safety rule necessitates that an MBTA employee accompany RTSD staff for safety reasons.
- Unannounced: RTSD staff may conduct unannounced safety oversight activities that are not routine and occur without advance notice. See SOG Section 5.6a for additional information. In addition, RTSD may conduct any observations/oversight activities from public areas on or near the vicinity of MBTA property without any notification or contact with MBTA officials. RTSD staff must follow all applicable MBTA safety policies



and procedures, as well as exercise discretion in determining when advance notice is necessary to ensure safety.

# **I&V Plan Activities include, but are not limited to, the following:**

**Document Review:** RTSD should review procedures referenced in the CAP, or related to the CAP, to verify the procedure exists and has been updated. RTSD should determine how these procedures have been distributed to MBTA personnel and how MBTA personnel have been trained as specified in the CAP. Also, RTSD should determine if the distribution and training records have been recorded and tracked. Review of documents could also result in a recommendation to improve the reports or the reporting system.

**Records Review:** RTSD may sample MBTA's records for evidence of implementation of the CAP. Records reviewed may include, but are not limited to, training records, records of employee rules compliance checks, internal safety checks and audits, maintenance inspection reports, and minutes of meetings.

**Interviews with MBTA Personnel:** RTSD may conduct interviews with any MBTA personnel such as members of the Safety Division, Officials, and Senior Management to verify understanding of requirements specified in the CAP and/or to gauge the commitment to any permanent and ongoing changes required by the CAP.

**Field Observations:** RTSD may conduct visual observations and sampling on-site at MBTA to observe implementation of the processes and procedures described in the CAP as well as supporting or referenced documents, or any procedures and materials related to the MBTA's safety program. Observations may include attending and observing a meeting relevant to the CAP.

**Observation of Inspections and Measurements:** Inspections and measurements are conducted on-site at MBTA to ensure that MBTA's infrastructure and equipment are maintained to the specifications identified in MBTA's standards, procedures, and manuals. RTSD staff may also request MBTA records, such as a series of inspections, to help determine the validity of CAP implementation.

**Data Analysis:** Analysis of data, such as the number of employee injuries or accidents, may inform whether the implementation of the CAP has had an immediate impact on a hazardous condition. It is also within scope for the RTSD to compare RTSD data to MBTA data for consistency. Longer term data analysis may be the subject of an SRM (discussed below).

# B. ELEMENTS OF THE I & V PLAN

- 1. Identify the CAP number and list each step or corrective action.
- 2. Identify at least one activity, but preferably more than one, that will verify the successful implementation of each corrective action.



- 3. Identify if the activity must or should be performed at a specific geographic location or train line associated with the CAP.
- 4. Identify which specific MBTA resources are necessary, if any, to perform the activity.
- 5. To the extent possible, vary I&V Plan activities by scheduled, unscheduled, announced, and unannounced visits.
- 6. Identify frequency of activity (one time only, once a week, once a month).
- 7. Set a timeframe for how long each activity will continue to demonstrate the CAP is fully implemented (e.g., four weeks, four months, one year). Staff may note if the activity should ultimately become an ongoing SRM Topic/Work Plan.
- 8. Identify one RTSD person with primary responsibility for the I&V Plan, likely the person who drafted it. If multiple staff are participating, specify which staff will perform each activity.
- 9. Determine if closure of the CAP or individual corrective actions are sufficient. The result must be communicated to MBTA through the process set forth in SOG 5.5.
- 10. The last step in an I&V Plan is determining how to conduct ongoing monitoring of the closed CAP. Staff discuss the CAP closure as well as the development of a SRM Plan referred to in SOG Section 5.6 Safety Risk Monitoring Process and Activities. The SRM Plan will address any activities necessary for the ongoing monitoring of the closed CAP to ensure that the risk or hazards remain mitigated.
- 11. The SRM Plan is added to the list of ongoing Safety Risks to be monitored.

#### C. RELATION TO SAFETY RISK MONITORING PLANS

The format and preparation for executing the I&V Plan is similar to that currently used by RTSD for SRM Plans. I&V Plans are used specifically for monitoring the implementation of an open CAP. SRM Plans are used to assess the MBTA's continued compliance with the Agency Safety Plan, minimum standards for safety, or previously approved CAPs. After all I&V activities are completed, and the I&V activities indicate that a CAP may closed, the next step is developing an SRM Plan and adding the item or topic to a risk monitoring log for ongoing monitoring. Ongoing monitoring through the SRM Plan ensures that closed CAPs remain mitigated.

#### D. RECORDKEEPING

RTSD staff should keep a record with notes on all I&V Plan activities, consistent with the manner that notes on investigations or SRM activities are maintained. Notes on the I&V Plan will be attached to the relevant CAP record.

#### E. I&V PLAN RESULTS

I&V Plan findings should be communicated to MBTA through the RTSD Director as soon as practicable. Informing MBTA of the RTSD's findings can provide important feedback about whether MBTA's efforts to implement a CAP are effective or require a course correction or additional measures. RTSD will update MBTA on the findings either by special meeting or in a



regularly scheduled MBTA-RTSD meeting. <u>See</u> SOG Section 5.5 Corrective Action Plans for additional information.

If at any time during the execution of the I&V Plan, RTSD staff observe an immediate life safety issue, this should be communicated to the Operations Control Center and MBTA Safety Division as soon as possible.

# **Additional Documents**

None

# **Updates:**

July 5, 2022 – initial release

September 29, 2022 – amendments submitted to FTA for review; not accepted by FTA

December 9, 2022 – further amendments submitted per the FTA's directions

March 24, 2025 – revised



Section 6.1 – Preparing Grant Applications and Monitoring Grant Spending		
Version Effective Date	March 24, 2025	
Massachusetts Regulation	NA	
Reference		
Federal Regulation	49 C.F.R. Part 674.17	
Reference		

#### I. PURPOSE

The Rail Transit Safety Division ("RTSD") staff shall adhere to the following procedures for preparing a grant application, expending grant monies, and monitoring and reporting spending to achieve compliance with all Federal Transit Administration ("FTA") grant requirements.

#### II. RESPONSIBILITIES

#### A. GRANT APPLICATION

- 1. The Chief Financial Officer or their designee ("CFO") will seek, through the Office of the Comptroller, the Executive Office of Administration and Finance's ("A&F") written approval before submitting a new federal grant application to ensure the purpose of the grant-funded program does not oppose those of the current Administration.
- 2. The CFO or their designee will notify RTSD Director of A&F's approval or denial in writing.
- 3. If approved, the RTSD Director shall develop a draft program narrative and budget proposal.
- 4. The RTSD Director will provide the draft program narrative and budget proposal to the CFO.
- 5. After the CFO's review, the RTSD Director will submit the program narrative and budget proposal to the DPU Chair or a designated Commissioner for review and approval.
- 6. The CFO shall develop the budget narrative based on the program narrative and budget proposal.
- 7. The CFO shall submit the budget narrative to the DPU Chair or a designated Commissioner for review and approval.
- 8. The CFO and RTSD Director shall amend the budget proposal, budget narrative and program narrative in response to any directives from the DPU Chair or a designated Commissioner.



- 9. The budget proposal, budget narrative and program narrative shall then be compiled into a single final federal grant application and submitted to the DPU Chair or designated Commissioner for review.
- 10. To the extent that the final federal grant application is satisfactory, the DPU Chair or designated Commissioner will approve and sign the final federal grant application.
- 11. The RTSD Director will submit the executed final federal grant application to the Federal Transit Authority ("FTA").
- 12. If the FTA directs an amendment to the grant application, the RTSD Director shall return to step 1.4.

#### B. GRANT SPENDING

- 1. Grant spending shall adhere to the approved budget submitted to the FTA as part of the final federal grant application.
- 2. All federal and state laws and regulations must be followed without exception.
- 3. The RTSD Director shall make any spending requests to the CFO.
- 4. The CFO is responsible for drawing down federal funds based on a monthly spending plan which has been submitted to the FTA.
- 5. The CFO will procure and pay for services and goods.
- 6. The CFO must review and approve all expenditures.
- 7. The CFO is the signatory authority on each expenditure.
- 8. If a budget amendment becomes necessary, the RTSD Director and CFO shall brief the DPU Chair or a designated Commissioner and obtain approval.
- 9. Adjustments or amendments to the budget must be approved by the DPU Chair or a designated Commissioner.
- 10. If a budget amendment becomes necessary, the CFO shall promptly notify the FTA and seek approval of the amendment in accordance with the FTA's instructions.

#### C. MONITORING

- 1. The CFO shall meet quarterly with RTSD Director to review spending.
- The CFO will brief the DPU Chair or a designated Commissioner quarterly on the RTSD spending, including, but not limited to, communicating any variance from planned spending.

#### D. GRANT REPORTING

- 1. The RTSD Director and CFO shall submit federal grant reports to the FTA.
- 2. The CFO shall file grant spending reports properly and on time with the State Comptroller's Office and A&F.
- 3. The CFO shall file the federal grant spending plan with the Governor's Office as part of the annual budget development process.



# **Updates**

March 1, 2021 – effective

March 24, 2025 – revised



Section 6.2 – Disadvantaged Business Enterprise Program		
Version Effective Date	March 24, 2025	
Massachusetts Regulation Reference	NA	
Federal Regulation Reference	49 C.F.R. Part 26.45	

#### . PURPOSE

As a recipient of federal grant monies from the Federal Transit Administration ("FTA"), Department of Public Utilities ("DPU") is required to have a Disadvantaged Business Enterprise ("DBE") Program. The DBE Program is necessary to comply with the U.S. Department of Transportation ("DOT") regulations, 49 C.F.R. Part 26. DPU filed its DBE Program for the first time with FTA in August 2021.

In brief, the purpose of a DBE Program is to ensure non-discrimination and help remove barriers to the participation of DBEs in DOT funded contracts. A DBE Program sets a goal for spending a percent of the federal grant monies received by DPU on entities that are registered as DBEs. DPU must make a good faith effort to meet the DBE goal each year. Once the DBE Program is filed and approved by FTA, it is not necessary to redraft and refile the Program Plan again, but it is necessary to update program goals every three years. If changes are made to the Program Plan, a revised Program Plan must be submitted to the FTA.

#### II. REQUIREMENTS

#### A. POLICY STATEMENT

DPU must have a Policy Statement, not to be confused with the Program Plan. DPU placed the Policy Statement, dated August 1, 2024, as the first page of the Program Plan (see Appendix G). The Policy Statement is signed by the DPU Chair. The DPU's Policy Statement appoints a DBE Liaison Officer, who is responsible for implementing the DBE Program. The DBE Liaison Officer is the Director of the Rail Transit Safety Division, but there is no requirement that it be the RTSD Director. Other DPU staff could serve as the DBE Liaison Officer.



# B. SCHEDULES/DEADLINES

DPU must maintain records of Request for Proposals (also known as RFPs, Request for Bids/Qualifications, and Request for Responses) issued, as well as expended grant monies. DPU's Chief Financial Officer maintains records of all monies expended. DPU should maintain copies of the RFPs.

DPU must submit a DBE semi-annual report via the Transit Award Management System ("TrAMS") twice each year on June 1 and December 1. The semi-annual report is made through entering spending information, DBE contractor information, and a description of spending into TRAMs. The goal established in the DBE program is in effect for a three-year period. The latest DBE Program was filed for Federal Fiscal Years 2025-2027. The DBE goal is effective from October 1, 2024 through September 30, 2027. DPU must file a new DBE goal with FTA by August 1, 20274 (and again every three years after). Two weeks should be allotted for internal review of the new goal.

In the event that revisions are made to the Program Plan, additional time should be allowed for review of the Program Plan. The revised Program Plan must be submitted to the FTA through TrAMS.

# C. PUBLICATION AND DISTRIBUTION REQUIREMENTS

The Rail Transit Safety Division ("RTSD") has a designated area on the DPU website for posting all information related to the DBE Plan. The Program Plan is posted at www.mass.gov/doc/dpu-dbe-program-plan-final-with-goal-setting-8-23-21/download. DPU should ensure that the current DBE Plan is available on the DPU website.

The DBE Program requires that DPU post information about Minority Financial Institutions on its website. Below is the 2021 version:

In accordance with US Department of Transportation ("DOT") regulation 49 C.F.R. § 26.27 and consistent with the DPU's DBE Program, DPU encourages prime contractors to utilize the services of financial institutions owned and controlled by socially and economically disadvantaged individuals. The Federal Deposit Insurance Corporation's list of Minority Depository Institutions identifies OneUnited Bank, located in Boston, MA. We encourage prime contractors to explore utilizing their services.

DPU must distribute the DBE Policy Statement to the Commission and Rail Transit Safety Division staff on October 1 of each year.



#### D. DESIGNATE A DBE OFFICER

The DPU Chair must designate a DBE Liaison in writing. The DBE Liaison is named in the Policy Statement.

#### E. FILING THE PROGRAM PLAN

The Program Plan, Policy Statement, and all attachments must be filed with FTA by uploading the document into the FTA's TRAMs database. Permissions to access TRAMs and upload the document are necessary. Access to TRAMs should be arranged though FTA before any filing deadline.

# F. PURCHASE OF VEHICLES

According to FTA, transit vehicles must be purchased from a DBE-certified transit vehicle manufacturer ("TVM") and reported to FTA within 30 days of purchase. The current list of DBE-certified TVMs and the online reporting tool is on the FTA's website at www.transit.dot.gov.

#### **Additional Documents**

• Appendix G: Disadvantaged Business Enterprise Program Policy Statement

#### **Updates**

May 31, 2022 – effective

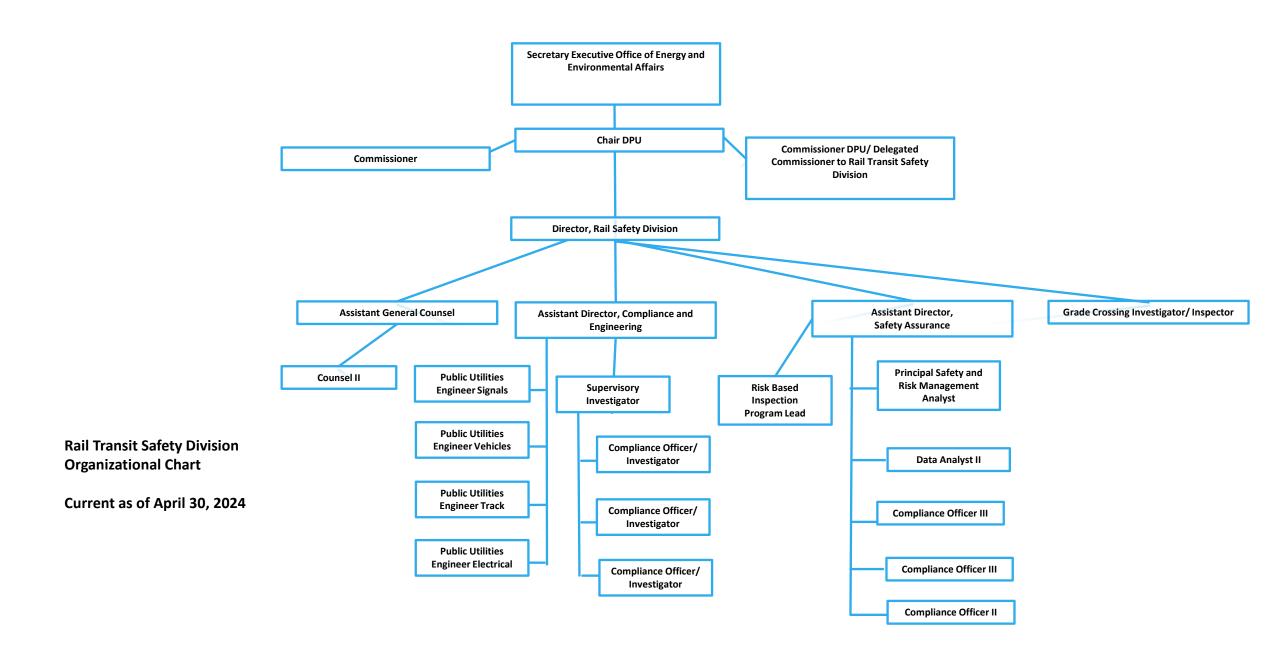
March 24, 2025 – revised



This page intentionally left blank.



# Appendix A: Rail Transit Safety Division Organizational Chart





Appendix B: Technical Training Plan

(Appendices Not Included)

# MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

## RAIL TRANSIT SAFETY DIVISION

**Technical Training Plan** 

Effective Date 2/1/2024



## Table of Contents

Back	ground	3
Purp	ose & Scope	4
A: O	nboarding New Hires	4
1.	DPU Required TSI/FTA Training for New Hires:	5
2.	Additional MBTA Training for Division Personnel	5
3.	MBTA Right-of-Way ("ROW") Training	5
4.	DPU Minimum On-Call Duty Training Requirements	5
5.	On-the-Job Job Training ("OJT")	6
6.	Cool-Off Period	6
7.	Commonwealth of Massachusetts Initial Onboarding Training	7
B: Pı	ublic Transportation Safety Certification Training Program ("PTSCTP")	7
Ste	ep 1: Enrolling in the Program (PTSCTP) and Requesting an Individual Training Plan	9
Ste	ep 2: Register for and Complete Courses	9
Ste	ep 3: Request Equivalency Credit (If Applicable)	10
C: To	echnical Training and Competency Areas	10
1.	Competency Areas	10
2.	Requirements for TTP Activities	11
3.	Technical Training & Curriculum	12
D: R	ecordkeeping and Administration Requirements	24
2.	Maintenance of Competency Requirements	25
3.	Internal Tracking of Training	25
4.	Employee Performance Review System	26
		27
APPI	ENDIX A: Creating a TSI Account	27
APPI	ENDIX B: General Qualifications for SSO Program StaffStaff	28
APPI	ENDIX C: Competency Areas & Available Courses List	30
APPI	ENDIX D: MA DPU Organizational Structure	31
APPI	ENDIX E: Training Record Forms	32
APPI	ENDIX F: Definitions & Acronyms	33
APPI	ENDIX G: 49 CFR Part 672	35
	ENDIX H: New Hire Onboarding Checklist	
APPI	ENDIX I: Competency Area vs. Job Position Matrix	37



#### Background

The Massachusetts Department of Public Utilities ("DPU" or "Department") is the designated State Safety Oversight Agency ("SSOA") for Massachusetts pursuant to G.L. c. 161A, § 3. As the SSOA, the DPU has formed the Rail Transit Safety Division ("Vision") to monitor and oversee the safety of rail transit operations at the Massachusetts Bay Transportation Authority ("MBTA"). To fulfill its obligations as the SSOA, the DPU must meet the requirements of 49 C.F.R. Parts 672 through 674 and 220 CMR 151.00. Pursuant to 49 C.F.R. Part 672, this Technical Training Plan ("TTP") details how Division staff will obtain technical training to complete the Public Transportation Safety Certification Training Program ("PTSCTP") and meet its sixteen mandated competency areas and an additional six competency areas established by the Department.

The PTSCTP Final Rule ("Training Rule"), 49 C.F.R. Part 672, establishes a uniform curriculum for safety training that consists of minimum requirements to enhance the technical proficiency of rail transit safety personnel.

The Training Rule, effective on August 20, 2018, implements Federal Transit Administration's ("FTA") requirement for a public transportation safety certification training program. The Training Rule sets forth federal requirements for the certification and training of SSOA personnel and contractors who conduct safety audits and examinations of rail transit systems, and rail transit agency personnel and contractors who are directly responsible for safety oversight.

Additionally, on October 21, 2022, the FTA issued Special Directive 22-34 regarding Risk-Based Inspection ("RBI"). SSOAs, including DPU, are responsible for ensuring their RBI programs meet the requirements of the directive. This includes sufficient staff and resources to conduct and carry out the RBI program with personnel skilled in the competencies needed to fulfill program requirements such as data analysis, risk assessment, and inspection. Further, SSOAs must be able to verify the capability of its personnel to conduct RBI oversight activities.

SSOA staff conducting safety audits and inspections of public transportation systems and their supervisors must complete training requirements. SSOAs also must have sufficient resources to conduct inspections. In addition, staff operating a rail fixed guideway public transportation system such as the MBTA must complete applicable training. 49 C.F.R. Parts 672.11 and 672.13; 49 U.S.C. 5329(k). The following visual assists employees in determining whether they must meet the Training Rule's requirements. Also, please see Appendix A for information on registering for trainings.



#### Purpose & Scope

Over the three-year period after staff are determined to be designated personnel, the FTA requires each SSOA to develop its own Technical Training Plan ("TTP") specific to its rail system as described in 49 C.F.R. Part 672, Appendix A.<sup>4</sup> The purpose of the TTP is to: (1) meet the Training Rule specifications; (2) educate the Rail Transit Safety staff on training requirements and the established curriculum; and (3) explain how to access, and record the completion of the required training.

#### The Training Plan is made up of four main sections:

- A. A description of how the Rail Transit Safety Division onboards new hires for the Commonwealth of Massachusetts
- B. The PTSCTP which is the process for staff to receive and complete specific training courses conducted by the FTA and the Transportation Safety Institute ("TSI").
- C. The process for staff to receive technical training in the twenty-two competency areas defined by the Division.
- D. The process for recordkeeping and other administrative requirements associated with the Training Plan (i.e., verification of certifications and training).

#### A: Onboarding New Hires

Onboarding is a long-term process, which usually takes place mostly during the first year, as the new hire learns about their role, how they fit into the agency, receives guidance, tools and resources, and gains knowledge to be successful. The Commonwealth of Massachusetts provides new State employees a "Commonwealth of Massachusetts New Employee Guide" which gives new hires a general overview of the rights, responsibilities, and benefits of state employment.

Prior to the new hire's arrival, the Division Leadership Team will work collaboratively to arrange for the new hire's workspace and network access and request a computer, phone, email

address for the new hire. Additionally, the Division Leadership Team will prepare an onboarding checklist specifically for the new hire, assign a supervisor, who is responsible for overseeing the employee, and select a mentor. A mentor is not a substitute for the supervisor but is a co-worker who can answer the new hire's questions about the work environment, duties and the workplace culture in a positive and encouraging way, help make the new employee feel welcome, and introduce the new hire to co-workers if their supervisor has not already done so.

Mentorship begins with a new hire's initial entry into the rail transit safety team and becomes a staple of the long-term success and development of the SSOA program. The new hire, while assigned an initial mentor to help them learn the structure of the SSOA program, also will engage with additional mentors from other disciplines within the team to ensure that they can work efficiently and effectively.

The Division's Leadership Team is responsible for providing continued professional development opportunities, reviewing staff progress on performance, and providing regular informal feedback to ensure that new employees are engaged and successful in their new role.

#### 1. DPU Required TSI/FTA Training for New Hires:

All new hires at the Division, regardless of prior experience, are required to complete Rail Nomenclature on the TSI website within one month of their start date. Rail Nomenclature is an e-Learning course that covers the basic terminology and components used in rail transit systems. Topics include: rail transit modes, vehicles, track and special trackwork, traction power, signal systems, rail grade crossings, and operations control center/vehicle maintenance facility. This course is designed for SSOA employees who are new to rail or have a general interest in understanding rail terminology.

#### 2. Additional MBTA Training for Division Personnel

As part of additional training and learning resources, the Division has access to MBTA's Learning Management System ("LMS") (also known as "MassDOT's Learning Hub"). See Appendix C for a list of available LMS courses. These courses are included as part of the Division's criteria for meeting several competency areas.

#### 3. MBTA Right-of-Way ("ROW") Training

All Division personnel are required to obtain the MBTA Right-of-Way ("ROW") License, regardless of the position and whether it requires on-call duty or regular field engagements. For access to the MBTA ROW, a license is a part of the required Personal Protective Equipment ("PPE"). For staff to register for the course, their supervisor will assist them by emailing MBTAROW@mbta.com and filling out a "ROW Training Request Form." The completed training will then be logged and tracked in the Division Training Log. After the MBTA's initial eight-hour training, the staff must get recertified by taking the ROW Recertification for Contractors Course.

#### 4. DPU Minimum On-Call Duty Training Requirements

Most of the Division staff must be able to respond to emergencies and incidents with evening and weekend On-Call duty. Therefore, all Division personnel regardless of their position, receives On-Call duty training from the Safety Lead Investigator, or designee arranged by the DPU leadership team. At a minimum, the Safety Lead Investigator (or

designee) will conduct an internal training which consists of a presentation describing responsibilities and requirements related to accidents and investigations, and how to be prepared for field response and activities. Staff are scheduled for On-Call duty on the "On-Call Duty Calendar." Assignments are made on a rotating basis, and typically Division staff are assigned On-Call duty for a week at a time, with 24-hour coverage. For a minimum of three rotations, any newly added personnel will shadow the Safety Lead Investigator, or designee arranged by the Division Leadership Team. By shadowing an experienced investigator, the new hire will have the opportunity to learn in the field and ensure they are fully prepared to perform their On-Call duties, as well as other audit or inspection activities. All staff assigned to On-Call duty will also be given all required PPE, a brief radio training, a demonstration of how to fill out the appropriate paperwork, and a copy of *Section 5.1 Notifications and Investigations*. Finally, the safety of each Division staff member is critical and of the utmost priority.

#### 5. On-the-Job Job Training ("OJT")

On-the-Job ("OJT") training is a type of internal training mechanism the Division uses to help staff develop certain skills they need to do their job. In addition to new hire onboarding mentorship, Division utilizes side-by-side mentoring often and continuously; this may include a qualified peer demonstrating how to do something or the steps of a process, or a manager giving a mini-lecture or demonstration, too. Examples of the types of OJJ activities that will be documented on the Training Record Forms (Appendix E) include, but are not limited to:

- a. First three weeks of On-Call-Duty and relevant internal training
- b. Training specific to DPU, e.g., developed and conducted by consultants
- c. Training provided to DPU by MBTA (e.g., practicals and system familiaization)
- d. PTASP reviews
- e. Internal/External Audit Participation
- f. Curriculum related document reviews

Additionally, these forms may be filled out at the time of the training activity or captured during any of the Employee Performance Review System (EPRS) sessions (please also see Section D for additional information on recordkeeping). OJT training or an overall general program refresher training for all staff may be offered to fulfill refresher training requirements for the competency areas.

#### 6. Cool-Off Period

As the SSOA program is housed in DPU, it commonly receives applications from current and former MBTA employees with technical expertise across the MBTA system. The Division has instituted a "cooling off" period which becomes effective at the date of hire with the Division and lasts for 6 months. This cooling off period applies to any MBTA employee hired by the Division. The purpose of the cooling off period is to help preserve the integrity of the oversight authority of the DPU and ensure that the employee does not

appear to have a bias for or against their prior employer by providing the employee a period of time where they will not participate in direct oversight of the discipline, they worked within during their employment at the MBTA. The employee may provide expertise to the Division team within the scope of their expertise but will not be permitted to individually conduct specific discipline oversight activities.

#### 7. Commonwealth of Massachusetts Initial Onboarding Training

All new hires for the Commonwealth of Massachusetts are required to successfully complete a total of 34 hours of onboarding training in the following areas:

- Benefits
- Union
- Diversity in the Workforce
- Cybersecurity
- Workplace Harassment
- Domestic Violence
- Safe Workplace
- Conflict of Interest/Ethics

#### B: Public Transportation Safety Certification Training Program ("PTSCTP")

The PTSCTP provides minimum training requirements for Federal and State personnel and contractors who conduct safety audits and examinations of transit systems, as well as for transit agency personnel and contractors who are directly responsible for safety oversight to enhance the technical proficiency.

#### 1. The minimum training requirements are:

- a. Safety Management System Awareness One-hour course e-learning delivery
- b. Safety Assurance Two-hour course e-learning delivery
- c. SMS Principles for Transit Twenty-hour course
- d. Effectively Managing Transit Emergencies Thirty-two-hour course (TSSP)
- e. Transit Rail System Safety Thirty-six-hour course (TSSP)
- f. Transit Rail Incident Investigation Thirty-six-hour course (TSSP)

g. SMS Principles for SSO Programs – Sixteen-hour course



#### **DEADLINES FOR TRAININGS**

Designated personnel have three years from the effective date of the final rule (August 20, 2018)

#### OR

Three years after designation (date of hire) to complete the initial training requirements.

#### 2. Refresher Training Requirements

Designated Personnel<sup>1</sup> under 49 C.F.R. Part 672.11 have three years from the effective date of the final rule (August 20, 2018) or three years after designation, to complete the minimum training requirements. Thereafter, refresher training shall be completed every two years. The Division has discretion in determining refresher training requirement content which must include, at a minimum, one hour of safety oversight training.

Any one of the following training activities are approved to meet the one-hour refresher training every two years (this is applicable to competency area refreshers, as well):

- FTA/TSI SMS Awareness (online)
- FTA Annual SSO Managers Meeting (attendance)

<sup>&</sup>lt;sup>1</sup> Designated Personnel are personnel whose primary job function includes: Development, implementation, and monitoring of the Rail Transit Agency's (RTA) System Safety Program Plan or the Public Transportation Agency Safety Plan, and/or the development, implementation and review of any of the processes and procedures that are needed to comply with the SSOA program standard.

- A self-paced training document entitled "State Safety Oversight (SSO) Programs"
- Overall general program refresher training for all staff may be offered to fulfill refresher training requirements for the competency areas.
- Any SSO program related training (including OJT) approved by the Division leadership team.

#### 3. Additional optional training

The Transportation Safety Institute ("TSI") is responsible for managing and administering the Transit Safety and Security Program ("TSSP") Certificate of Completion. This certificate program recognizes the rail and bus transportation safety and security professionals who have successfully completed the required course work and core competencies to earn a TSSP Certificate of Completion. Certificate holders possess the necessary information to develop and implement system safety, security, and emergency management program plans. The certificate program is optional, but strongly recommended for Division staff. By completing the PTSCTP, three of four TSSP courses are met. A transit professional who successfully completes the four required courses within three consecutive years is eligible to apply for the TSSP Certificate of Completion.

Participants should notify TSI one month prior to the completion of the last required course. The TSSP Certificate of Completion is awarded upon successful completion of the following four courses:

- 1. Effectively Managing Transit Emergencies Thirty-two-hour course
- 2. Transit Rail System Safety Thirty-six-hour course
- 3. Transit Rail Incident Investigation Thirty-six-hour course
- 4. Transit System Security Thirty-hour course (Optional for PTSCTP)

#### 4. Training Process

Step 1: Enrolling in the Program (PTSCTP) and Requesting an Individual Training Plan In order to enroll in the PTSCTP, you must email <a href="mailto:FTASafetyPromotion@dot.gov">FTASafetyPromotion@dot.gov</a> and request your Individual Training Plan ("ITP"). Include the following information in your request:

- The agency you work for (MA Department of Public Utilities)
- Your role within that agency (SSOA)
- Your phone number

#### Step 2: Register for and Complete Courses

Once you enroll for the program and receive your ITP, you will need to register for courses. Your ITP will list the minimum training requirements.

To register for TSI Training, you must create a TSI account. Directions to create an account for registration and completion of courses can be found in Appendix A: Creating a TSI Account

#### Step 3: Request Equivalency Credit (If Applicable)

Go to FTA's training website at <a href="https://www.transit.dot.gov/regulations-andguidance/safety/safety-training">https://www.transit.dot.gov/regulations-andguidance/safety/safety-training</a> to download the equivalency credit request form for official evaluation of training completed outside of FTA's Safety Training Program

Email completed form and required supporting documents to FTASafetyPromotion@dot.gov and allow 60 days for review and response by FTA.

#### C: Technical Training and Competency Areas

#### 1. Competency Areas

In accordance with 49 C.F.R. Part 672, each SSOA must develop a TTP for designated personnel and contractor support personnel who perform safety risk monitoring activities and examinations. In addition, the FTA's Safety Management Inspection report of August 2022 requires the DPU to update its technical training plan to ensure it uses its available resources as effectively as possible to support field observations, audits, and inspections of MBTA's rail transit system.

The FTA recognizes that each rail fixed guideway public transportation system ("RFGPTS") has unique characteristics, therefore, each SSOA must identify the tasks related to inspections, examinations, audits, and activities requiring SSOA review to carry out its safety oversight requirements.

In addition, the SSOA is required to identify the skills and knowledge necessary to perform each task at that system. At a minimum, the TTP must describe the process for receiving technical training in the following competency areas<sup>2</sup> appropriate to the specific RFGPTS<sup>3</sup> for which safety audits and examinations are conducted. There are sixteen mandated competency areas and six competency areas added by the DPU:

- 1. Agency organizational structure;
- 2. System Safety Program Plan and Security Program Plan: Public Transportation Agency Safety Plan;
- 3. System Safety Program Plan and Security Program Plan: Safety Program Related Control Documents/Minimum Standards for Safety (added by DPU related to but separate from the Agency Safety Plan) these documents overlap with the two following competency areas;
- 4. System Safety Program Plan and Security Program Plan: Emergency Response, Operations, and Security Plans and Procedures (added by DPU but separate from the Agency Safety Plan);
- 5. Knowledge of Agency: Territory and revenue service schedules;

**Training Plan** 

<sup>&</sup>lt;sup>2</sup> Note that these competency areas and safety program related control documents are directly related to all Safety Risk Monitoring activities planned and completed by the DPU.

<sup>&</sup>lt;sup>3</sup> In Massachusetts, the MBTA is the only RFGPTS. Hereafter, RFGPTS will be called MBTA.

- 6. Knowledge of Agency: Facilities and Infrastructure (added by DPU this competency topic is in general and related to other maintenance of way competency areas below);
- 7. Knowledge of Agency: Current bulletins, general orders, and other associated directives that ensure safe operations;
- 8. Knowledge of Agency: Operations and Maintenance Rule Books;
- 9. Knowledge of Agency: Safety Rules;
- 10. Knowledge of Agency: Standard Operating Procedures;
- 11. Knowledge of Agency: Roadway/Right-of-Way Worker Protection;
- 12. Knowledge of Agency: Employee Hours of Service and Fatigue Management Program, including Drug & Alcohol Program;
- 13. Knowledge of Agency: Employee Observation and Testing Program (Efficiency Testing);
- 14. Knowledge of Agency: Employee Training and Certification Requirements;
- 15. Knowledge of Agency: Vehicle Inspection and Maintenance Programs, Schedules, and Records;
- 16. Knowledge of Agency: Track Inspection and Maintenance Programs, Schedules, and Records;
- 17. Knowledge of Agency: Tunnels, Bridges, and Other Structures Inspection and Maintenance Programs, Schedules, and Records;
- 18. Knowledge of Agency: Traction Power (substations, overhead catenary system, and third rail system), Load Dispatching, Inspection and Maintenance Programs, Schedules and Records;
- 19. Knowledge of Agency: Signal and Train Control Inspection and Maintenance Programs, Schedules and Records;
- 20. Knowledge of Agency: Command and Control Approach and Implementation, including standard operating procedures ("SOPs") (added by DPU);
- 21. Knowledge of Agency: Transit Asset Management and Management of Change, including the processes for System Modifications, Safety Certification, Procurement controls, Configuration Management, Transit Asset Management, and related documents (added by DPU); and
- 22. Knowledge of Agency: Capital Projects status tracking and SSO program approach to providing safety oversight (added by DPU).

#### 2. Requirements for TTP Activities

The SSOA must determine the length of time for the technical training based on the skill level of the designated personnel relative to the applicable rail transit agency(s). The TTP that is submitted to FTA for review must:

- Require designated personnel to successfully:
  - Complete training that covers the skills and knowledge needed to effectively perform the tasks.
  - Pass a written and/or oral examination covering the skills and knowledge required for the designated personnel to effectively perform his or her tasks.
  - Demonstrate hands-on capability to perform his or her tasks to the satisfaction of the appropriate SSO program supervisor or designated instructor.
  - Establish equivalencies or written and oral examinations to allow designated personnel to demonstrate that they possess the skill and qualification required to perform their tasks.
- Require biennial refresher training to maintain technical skills and abilities which includes classroom and hands-on training, as well as testing. Observation and evaluation of actual performance of duties may be used to meet the hands-on portion of this requirement, provided that such testing is documented. This is generally accomplished by the Rail Transit Safety staff by planning for, and engaging in, on-site Safety Risk Management Monitoring activities. Biennial refresher training may be an overall general program refresher training.
- Require that training records be maintained to demonstrate the current qualification status of designated personnel assigned to carry out the SSO program. Records may be maintained either electronically or in writing and must be provided to FTA upon request.

#### 3. Technical Training & Curriculum

All twenty-two competency areas listed above have a program documentation and SOP portion that will be taught through review of that documentation and discussion with Division staff, which will be approved by the Division Leadership Team. Some portions of this program documentation and SOP training are completed in the field (for example, on a train, at facilities, and/or on the right-of-way). In addition, some courses as noted are taken through the MBTA's LMS. All documents required under each core competency are saved on the Division's Shared Drive under the TTP Reference Documents folder. The TTP and hiring process must be a consistent balance of team development and appropriate training. The Division Leadership Team will work with and review these competency areas as a continual process to ensure the training plan remains an ongoing process. This is supplemented by additional continuing education and mentorship programs.

#### Competency Area 1

#### **Competency Area 1: Agency Organizational Structure**

To address this technical competency, the SSOA should ensure that the employee understands and can evaluate the organizational structure of the MBTA, to include:

- A working knowledge of the MBTA organizational structure;
- The ability to determine whether the organizational structure supports safety communication and the reporting and management of safety priorities and concerns; and
- The ability to determine whether a direct reporting relationship exists between the Safety Director and Chief Executive Officer or General Manager.

Deadline	One year of start date
Equivalency	2-years of experience at the DPU or MBTA Safety; participation in the review and approval of an Rail Transit Agency "RTA" Agency Safety Plan (ASP).
Training	Review ASP, specifically organization chart and description of MBTA Safety program related roles and responsibilities.
Courses	See course list in Appendix C
Documents	<ol> <li>MBTA Agency Safety Plan – Section 4</li> <li>GM Direct Reports Organizational Chart</li> </ol>
Demonstration	Discussion with Division leadership team and review of training records.
Refresher Frequency	Annual participation in the review of the updated ASP and applicable organizational updates from the MBTA. All DPU staff will be involved in review of the updated ASP every year by completing a portion of the checklist and reviewing the results with DPU leadership.
Documentation	Participation in the review will be tracked on the Training Record Form and progress towards meeting this core competency will be tracked in the <i>MDPU RT TTP Tracker</i> .

# Competency Area 2: Public Transportation Agency Safety Plan ( ASP )

Obtain a working knowledge of the MBTA's ASP; the ability to determine if the ASP meets DPU and federal requirements. Understand the use of the review checklists, both FTA checklist and the DPU's expanded checklist to account for the entire Safety Program description. Understand minimum standards for safety and SMS implementation at the MBTA

Review Area	Actions Needed to Meet Competency Area	
Deadline	Six months of start date.	
Equivalency	PTSCTP and TSSP certificates and review of MBTA ASP; 2 years of experience at SSO program and participation in conducting a review and approval of an RTA ASP, and participation in at least 1 three-year safety audit of ASP and Safety Program implementation at an RTA.	
Training	Review of a current MBTA ASP document, including review of current completed assessment checklist. Review of 220 CMR 151, 49 C.F.R. 673, 49 C.F.R. 674.	
Courses	N/A	
Documents	<ol> <li>MBTA ASP</li> <li>DPU PTASP Checklist</li> <li>FTA ASP Review Checklist</li> <li>MBTA SMS Implementation Plan</li> </ol>	5. 220 CMR 151 6. 49 C.F.R. 673 7. 49 C.F.R. 674

Demonstration	Discussion with Division leadership team		
Refresher Frequency	Annual participation in the review of the updated ASP and applicable organizational updates from the MBTA. All DPU staff will be involved in review of the updated ASP every year by completing a portion of the checklist and reviewing the results with DPU leadership.		
Documentation	Participation in the review will be tracked on the Training Record Form and progress towards meeting this core competency will be tracked in the <i>MDPU RT TTP Tracker</i> .		

# Competency Area 3: RTA Safety Program Related Control Documents/Minimum Standards for Safety

Maintain a working knowledge of the RTA Safety Program Related Control Documents/Minimum Standards for Safety. Review the list of safety program related control documents, understand the use of these documents to account for the scope of the RTA Safety Program. Review the current version of each document and where those documents are stored electronically. Review the DPU program approval process for these documents.

Review Area	Actions Needed to Meet Competency Area	
Deadline	Three years of start date.	
Equivalency	TSI-TSSP certificate and review of an RTA ASP; 2 years of experience at an SSO program and participation in conduct of review and approval of an RTA ASP, and participation in at least 1 three-year safety audit of ASP and Safety Program implementation at an RTA.	
Training	Review of the latest set of safety program control documents, including review of current completed approvals and review of versions	
Courses	N/A	

Competency A Standards for	rea 3: RTA Safety Program I Safety	Related Control Docum	ents/Minimum
Documents	1. Minimum Standards Tracking Matrix 2. 220 CMR 151.00 — Rail Fixed Guideway System: System Safety Program Standard 3. Mass DPU Standard Operating Guidelines 4. MBTA Transit Safety Plan 5. MBTA SMS Implementation Plan 6. MBTA Employee Safety Reporting Program 7. MBTA SEPP 8. MBTA Emergency Management Plan 9. MBTA Continuity of Operations Plan (COOP) 10. MBTA Operations Rulebook	11. ROW Safety Rulebook, 3rd Edition 12. MBTA Incident Investigation Manual 13. HMP included in the ASP, part of SRM 14. MBTA Safety Certification Program 15. MBTA System Modification Safety Program 16. 01569 Safety Certification 17. 01568 Construction Safety 18. 00700 General Conditions 19. MBTA Procurement Manual 20. MBTA Configuration Management and Control Safety Program 21. MBTA Transit Asset Management Plan	22. Vehicle Maintenance 23. MBTA Signal Maintenance Rule Book 24. MBTA Power Systems Maintenance Rule Book 25. MBTA Track Maintenance and Safety Standards 26. Radio 27. Facilities FLS 28. MBTA Drug and Alcohol Policy 29. MBTA OHS Plan 30. MBTA Safety Rules Compliance Program 31. MBTA Internal Safety Audit Program 32. Heavy Rail and Light Rail Operations Fleet Management Plan
Demonstration	9		
Refresher Frequency	Biennial. An example for this competency area would be a review of current MBTA safety program control documents and determine if those control documents are current and incompliance with the ASP. DPU staff will be required to participate in a portion of the review of any new documents that are updated within their biennial refresher year.		
Documentation	Participation in these reviews will be tracked on the Training Record Form and progress towards meeting this core competency will be tracked in the <i>MDPU RT TTP Tracker</i> .		

# Competency Area 4: Emergency Response, Operations, and Security Plans and Procedures

Maintain a working knowledge of the MBTA Emergency Response, Operations, and/or Preparedness Plan along with the Security and Emergency Preparedness Plan ("SEPP"). The inclusion of emergency response must be referenced in the ASP. The SEPP is included as an "all hazards approach" for the portion of the security program that overlaps with the safety program at an RTA.

Review Area	Actions Needed to Meet Competency Area			
Equivalency	TSI-TSSP certificate and review of an RTA ERP/EMP/EOP and SSP; 2 years of experience at an SSO program and participation in the review and approval (as a safety program related control document) of an RTA ERP/EMP/EOP and SSP, and participation in at least 1 three-year safety audit of ERP/EMP/EOP and SSP implementation at an RTA.			
Training	Review of the current MBTA EMP, CCOP and SSP documents. Completion of emergency response related courses.			
Courses	See available course list in Appendix C			
Documents	<ol> <li>MBTA SEPP</li> <li>MBTA Emergency Management Plan (EMP)</li> <li>Continuity of Operations Plan (COOP)</li> <li>MBTA Safety Certification Program</li> </ol>			
Demonstration	Discussion with DPU program supervisor and review of training records.			
Refresher Frequency	Biennial. Review of current MBTA EMP, COOP and SEPP			
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.			

#### Competency Area 5 & 6

#### **Competency Area 5: Territory and Revenue Service Schedules**

## Competency Area 6: Facilities and Infrastructure

Maintain working knowledge of MBTA territory, including the green line, Mattapan Trolley (Light Rail), blue, orange, and red lines (Heavy Rail), weekly service schedules, and facilities. Understanding of the MBTA's Ride Log and MBTA's Facilities Visit Log and the purpose of these activities and tracking.

Review Area	Actions Needed to Meet Competency Area		
Equivalency	Minimum 2 years of experience at the DPU or MBTA.		
Training	Review of current RTA ASP document, specifically description of the rail systems and Rail System Map and Operations. Review of all rail system facilities and general function, including visits to these facilities and infrastructure elements.		

Courses	See available course list in Appendix C		
Documents	<ol> <li>MBTA Rules for Operations Employees GEN21</li> <li>MBTA ASP</li> </ol>		
Demonstration	Discussion with DPU program supervisor and training record review.		
Refresher Frequency	Biennial. Review of current MBTA Agency Safety Plan (specifically description of the rail systems, facilities and infrastructure elements), and Rail System Map and Operations, Periodic line-by-line train ride. All DPU staff will be involved in review of the updated ASP every year by completing a portion of the checklist and reviewing the results with DPU leadership. Participation in these reviews will be tracked on the Training Record Form.		
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.		

#### Competency Area 7, 8, 9, 10, 11 & 20

Competency Area 7: Current bulletins, general orders, and other associated directives that ensure safe operations

**Competency Area 8: Operations and Maintenance Rule Books** 

Competency Area 9: Safety Rules

**Competency Area 10: Standard Operating Procedures** 

Competency Area 11: Roadway/Right of Way Worker Protection (RWP)

Competency Area 20: Command and Control Approach and Implementation, including SOPs

Working knowledge of MBTA bulletins, general orders and other directives; Understand how these documents relate to current rules; ability to review bulletins, general orders and other directives and identify potential safety concerns; ability to assess quality of rule books; ability to observe practices and determine if practices are compliant with rule books; ability to work in right-of-way (ROW) and observe if personnel are complying with Roadway and/or Right-of-Way Worker Protection (RWP) rules.

Review Area	Actions Needed to Meet Competency Area	
Equivalency	Minimum 2 years SSO program experience and rulebook reviews with the MBTA Training; Engineering or related degree plus minimum of 1-year experience in successful review of the MBTA's rulebook; Federal Railroad Administration (FRA) Certified Operating Practices Inspector.	
Training	MBTA Rulebook awareness course for SSO program staff that includes perspective of all MBTA staff and current RWP. Review of inspection and maintenance manuals, Control Center SOPs, Safety Rules, Rule Books, current bulletins and orders, Maintenance of Way and Rail Equipment SOPs, and RWP.	

Competency Area 7: Current bulletins, general orders, and other associated directives that ensure safe operations

Competency Area 8: Operations and Maintenance Rule Books

**Competency Area 9: Safety Rules** 

**Competency Area 10: Standard Operating Procedures** 

Competency Area 11: Roadway/Right of Way Worker Protection (RWP)

Competency Area 20: Command and Control Approach and Implementation, including SOPs

~ ~ ~			
Courses	See available course list in Appendix C		
Documents	<ol> <li>Right of Way (ROW) Safety         Handbook – 3rd Edition</li> <li>MBTA Occupational Health         and Safety Plan</li> <li>MBTA Rules for Operations         Employees</li> <li>MBTA Signal Maintenance         Rule Book</li> <li>MBTA Power Systems         Maintenance Rule Book</li> <li>MBTA Track Maintenance and         Safety Standards</li> </ol>		
Demonstration	Test for MBTA ROW Safety Course; Follow-up discussion with Division leadership team on various SOPs and rules.		
Refresher Frequency	Biennial. Review of MB TA Rulebook awareness course, inspection and maintenance manuals, Control Center SOPs, Safety Rules, Rule Books, Maintenance of Way and Rail Equipment SOPs, and RWP. The staff who complete the review of these documents will participate in a one-on-one discussion with their manager on their knowledge of the subject matter. This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.		
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.		

#### Competency Area 12

Competency Area 12: Employee Hours of Service and Fatigue Management Program, including Drug & Alcohol Program

Working knowledge of MBTA hours of service rules and/or policies and fatigue management program, including the Drug & Alcohol Program. Ability to review worker schedules to determine compliance with rules or policies. Ability to analyze worker schedules during an incident or accident investigation. Ability to understand the Drug & Alcohol testing requirements.

Review Area   Actions Needed to Meet Competency Area	
--	--

Equivalency	Minimum 2 years of SSO program experience plus review of MBTA's policies for hours of service and fatigue management, including Drug & Alcohol program; Completion of Hours of Service and Fatigue Training Course offered or sponsored by FTA, National Transportation Safety Board ("NTSB"), FRA, University or other agency or association, as determined by DPU; FRA Certified Operating Practices Inspector, Practices review.	
Training	Review of hours of service and fatigue management policy, including Drug & Alcohol Program and discussion with rail management.	
Courses	See available course list in Appendix C	
Documents	<ol> <li>MBTA Drug and Alcohol Policy</li> <li>MBTA Rules for Operations Employees</li> <li>SO 14-013 Limitations of Work Hours Supervisory</li> <li>SO 14-014 Limitations of Work Hours</li> </ol>	
Demonstration	Follow-up discussion/review with Division leadership team or training instructor.	
Refresher Frequency	Biennial. Review of hours of service and fatigue management policy, including Drug & Alcohol Program, and discussion with Division leadership team. The staff who complete the review of these documents will participate in a one-on-one discussion with their manager on their knowledge of the subject matter. This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.	
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.	

## Competency Area 13: Employee Observation and Testing Program (Efficiency Testing)

Working knowledge of MBTA employee observation and training program. Ability to observe review and testing practices to determine if procedures are adequate to ensure safe and efficient operations. Ability to review employee efficiency testing records to determine compliance with procedures.

	Actions Needed to Meet Competency Area
Equivalency	Minimum of 2 years of SSO program experience plus observance of completed rules checks on train operators by MBTA's supervisor or instructor; Completion of FTA, FRA, University, or Association sponsored training course approved by SSO program; FRA Certified Operating Practices Inspector Program Review.
Training	Review of current MBTA ASP document, specifically Efficiency Testing/Rules Compliance, and RTA/SSO program awareness training.

Courses	See available course list in Appendix C	
Documents	<ol> <li>MBTA ASP</li> <li>MBTA Safety Rules Compliance Program (SRCP) Manual</li> </ol>	
Demonstration	Discussion with Division leadership team	
Refresher Frequency	Biennial. Review of MBTA ASP, (specifically Efficiency Testing/Rules Compliance), and MBTA/SSO program awareness training. All DPU staff will be involved in review of the updated ASP every year by completing a portion of the checklist and reviewing the results with DPU leadership. Participation in these reviews will be tracked on the Training Record Form This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.	
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.	

## Competency Area 14: Employee Training and Certification Requirements

Working knowledge of the MBTA employee training and certification/competency requirements. Ability to review and assess employee training and certification/competency program to ensure it meets the requirements of the MBTA (and DPU). Ability to assess employee training records to ensure training and certification program is being properly administered and documented.

Review Area	Actions Needed to Meet Competency Area		
Equivalency	Minimum of 2 years of experience reviewing MBTA's training program and records or participation in 1 three-year audit of MBTA's ASP and Safety Program implementation; FRA Certified Operating Practices Inspector, Requirements review.  Review of current MBTA ASP document, specifically Employee Training and Certification/Competency Requirements, including Contractors.  N/A		
Training			
Courses			
Documents	MBTA ASP		
Demonstration	Discussion with Program Manager		

Competency Area 14: Employee Training and Certification Requirements			
Refresher Frequency	Biennial. Review of MBTA ASP (specifically Employee Training and Certification/Competency Requirements, including Contractors). All DPU staff will be involved in review of the updated ASP every year by completing a portion of the checklist and reviewing the results with DPU leadership. Participation in these reviews will be tracked on the Training Record Form This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.		
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.		

#### Competency Area 15, 16, 17, 18 & 19

Competency Area 15: Vehicle Inspection and Maintenance Programs, Schedules, and Records

Competency Area 16: Track Inspection and Maintenance Programs, Schedules, and Records

Competency Area 17: Tunnels, Bridges, and Other Structures Inspection and Maintenance Programs, Schedules, and Records

Competency Area 18: Traction Power (substations, overhead catenary system, and third rail system), Load Dispatching, Inspection and Maintenance Programs, Schedules and Records

Competency Area 19: Signal and Train Control Inspection and Maintenance Programs, Schedules and Records

Working knowledge of MBTA vehicle; track; tunnel, bridge, and other structures; traction power and load dispatching; signal and train control inspection and maintenance programs, schedules, and records; and command and control roles and responsibilities. Ability to observe practices and determine if procedures are being adequately followed (from a personnel and rail system safety perspective). Ability to review inspection and maintenance records and assess if procedures are adequate to support intended activities. Ability to participate in supervised inspections to identify potential safety concerns.

Review Area	Actions Needed to Meet Competency Area	
Equivalency	Related engineering degree or minimum 2 years of rail system expertise in each discipline and SSO program experience (specifically in independent review of investigations and internal audits of ASP topics of Efficiency Testing/Rules Compliance; Inspection and Maintenance Requirements/Practices at MBTA), participation in at least 1 three-year audit or other opportunity for at least 1 hands on observation of inspection and/or maintenance of each subsystem/discipline at MBTA; FRA Certified Inspector.	

Competency Area 15: Vehicle Inspection and Maintenance Programs, Schedules, and Records

Competency Area 16: Track Inspection and Maintenance Programs, Schedules, and Records

Competency Area 17: Tunnels, Bridges, and Other Structures Inspection and Maintenance Programs, Schedules, and Records

Competency Area 18: Traction Power (substations, overhead catenary system, and third rail system), Load Dispatching, Inspection and Maintenance Programs, Schedules and Records

Competency Area 19: Signal and Train Control Inspection and Maintenance Programs, Schedules and Records

Schedules and	Records			
Training	Review of current MBTA ASP and Safety Program Related documents, specifically Rail ASP topics of Efficiency Testing/Rules Compliance; Inspection and Maintenance Requirements/Practices; MBTA/SSO program awareness training for each of these subsystems/disciplines.			
Courses	See available course list in Appendix C			
Documents	<ol> <li>MBTA ASP</li> <li>Vehicle Maintenance Rule         Book</li> <li>MBTA Signal Maintenance         Rule Book</li> <li>MBTA Power Systems         Maintenance Rule Book</li> <li>MBTA Power Systems         Maintenance Rule Book</li> </ol>			
Demonstration	Discussion with Rail Transit Safety leadership team on understanding and or a problem-based learning exercises to demonstrate competency.			
Refresher Frequency	Biennial. Review of RTA ASP and Safety Program Related documents (specifically Rail ASP topics of Efficiency Testing/Rules Compliance; Inspection and Maintenance Requirements/Practices), and RTA/SSO program awareness training for each of these subsystems/disciplines. The staff who complete the review of these documents will participate in a one-on-one discussion with their manager on their knowledge of the subject matter. This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.			
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training  Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.			

Competency Area 21: Transit Asset Management and Management of Change, including the processes for System Modifications, Safety Certification, Procurement controls, Configuration Management, Transit Asset Management, and related documents

Working knowledge of MBTA's transit asset management plan and requirements and Management of Change (includes system modifications, safety certification, procurement controls, and configuration management) requirements. Ability to review and assess transit asset management and management of change to ensure it meets the requirements of the MBTA and DPU. Ability to assess that these activities are being properly administered and documented.

	Actions Needed to Meet Competency Area			
Equivalency	Minimum of 2 years of experience reviewing the MBTA's transit asset management and management of change activities and records, or participation in 1 three-year audit of the MBTA's ASP and Safety Program implementation including system modification, safety certification, procurement controls, configuration management, and/or transit asset management.			
Training	Review of current MBTA ASP and safety program documents, specifically focused on system modifications, safety certification, procurement controls, configuration management, transit asset management, and other related material such as the configuration management plan and transit asset management plan.			
Courses	See available course list in Appendix C			
Documents	<ol> <li>MBTA Transit Asset Management Plan</li> <li>MBTA Procurement Manual</li> <li>Heavy Rail and Light Rail Operations Fleet Management Plan</li> <li>MBTA ASP</li> <li>MBTA System Modification Safety Program</li> </ol>			
Demonstration	Discussion with Program Manager and review of training records.			
Refresher Frequency	Biennial. Review of MBTA ASP and safety program documents, including system modifications, safety certification, procurement controls, configuration management, transit asset management, and other related materials. The staff who complete the review of these documents will participate in a one-on-one discussion with their manager on their knowledge of the subject matter. This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.			
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.			

# Competency Area 22: Capital Projects status tracking and SSO program approach to providing safety oversight

Working knowledge of MBTA's capital projects along with status tracking of those projects. Working knowledge of the DPU requirements for significant capital projects and processes used to monitor and participate in capital projects of interest to the DPU. This scope includes review of or participation in capital project related meetings and when additional participation or monitoring of the capital project by the DPU is needed/required.

Review Area	Actions Needed to Meet Competency Area			
Equivalency	Minimum of 2 years of experience reviewing the MBTA's capital projects, processes, and monitoring meetings. Experience of monitoring at least one significant capital project up to and including concurrence by the DPU that the project was ready for use/revenue service.			
Training	Review of current MBTA ASP and safety program documents, specifically focused on system modifications, safety certification, procurement controls, configuration management, transit asset management, and other related material such as the safety certification plan, rail activation plan, configuration management plan and transit asset management plan.			
Courses	See available course list in Appendix C			
Documents	<ol> <li>MBTA ASP</li> <li>MBTA Procurement Manual</li> <li>MBTA System Modification Safety Program</li> </ol>	<ul><li>4. 01569 Safety Certification</li><li>5. 01568 Construction Safety</li><li>6. 00700 General Conditions</li></ul>		
Demonstration	Discussion with Division leadership team and review of training records.			
Refresher Frequency	Biennial. Review of current MBTA ASP and safety program documents, including system modifications, safety certification, procurement controls, configuration management, transit asset management, and other related material such as the safety certification plan, rail activation plan, configuration management plan and transit asset management plan. The staff who complete the review of these documents will participate in a one-on-one discussion with their manager on their knowledge of the subject matter. This competency area may also be accomplished by receiving an overall general program refresher training. Participation in these reviews or general program refresher training will be tracked on the Training Record Form.			
Documentation	Courses completed will be recorded in the MPDU RT FTA_TSI Training Tracker and progress towards meeting this core competency will be tracked in the MDPU RT TTP Tracker.			

#### D: Recordkeeping and Administration Requirements

Regulations require the DPU to retain training records and certificates for five years from their creation. All training records must be made available to those who might need to review or audit those records.

In general, DPU must ensure that its personnel are enrolled in the PTSCTP and that each employee's training record is updated in order to comply with 49 C.F.R. Part 672.21. The disclosure of an individual's training records is addressed in 49 C.F.R. 672.23. The DPU may not disclose an individual's training records without written permission from the individual unless a regulation requires it, or if the FTA or the National Transportation Safety Board ("NTSB") requests the record as part of a safety event investigation or audit activity. DPU will consult 49 C.F.R. Part 672.23 and applicable laws prior to releasing training records to any external body.

#### 2. Maintenance of Competency Requirements

The Department strives to recruit experienced safety and rail transit personnel and pursues completion of the FTA's technical training requirements for staff members. The Department also utilizes MBTA training programs to enhance staff knowledge in various areas of the FTA and its Technical Training Plan. The Department coordinates with various MBTA groups to identify available training courses suitable for the enhancement of Department staff competency in various rail transit technical areas. The Department has access to MBTA's LMS, which includes computer-based training courses to support a strong foundation of knowledge for specific competency areas. Additionally, the Department utilizes consultants as subject matter experts whenever necessary or warranted.

Department personnel take internal training programs related to Department operating guidelines, policies, procedures, the Department Program Standard, MBTA's Safety Plan and various other areas. The Department conducts in house training designed to enhance staff knowledge obtained in certification training by making content specific to the MBTA. The Department has also utilized training offered by others for example, the NTSB and the University of Tennessee, Track Inspection Program.

#### 3. Internal Tracking of Training

The Division Leadership Team designates one member of the Division staff who will maintain copies of the training records and certificates (known as the designated SSOA employee). However, Division staff are individually responsible for collecting their own training completion certificates and providing them to the designated SSOA employee who maintains training records. Division staff must email copies of their certificates or other proof<sup>4</sup> of completion to the designated SSOA employee.

The designated SSOA employee will take the follow steps to document completed training:

- 1. Place a copy of certificate or record on the Shared Drive
- 2. Update the training tracker

TSI/FTA required training will be tracked separately from the Technical Training Plan training required by the DPU.

<sup>&</sup>lt;sup>4</sup> Proof can be training certificates from FTA/TSI courses and/or Training Record Forms.

Planned and completed training is tracked in the FTA matrix/spreadsheet for the Department, as a supplemental document to the Training Plan. This matrix will be updated monthly with training data stemming from the monthly status report.

#### 4. Employee Performance Review System

Each supervisor is required to conduct Employee Performance Review Systems ("EPRS") with their assigned employees following a fiscal year schedule. The purpose of the program is to improve productivity by increasing communication between employees and supervisors.

Throughout the EPRS review process, each supervisor will have an opportunity to establish and track the progress of job performance and training requirements. At a minimum, each supervisor and employee will meet three times throughout the year.

- Stage A: Performance Planning (Before July 15) The supervisor and employee will
  meet to define successful job performance for the employee and use Training Record
  Forms (see Appendix E: Training Record Forms) to establish a specific plan and schedule
  for completing training requirements.
- Stage B: Progress Review (Before February 1) Halfway through the year, each supervisor will meet with their assigned employees for a formal progress review. At this meeting, they will together look for ways to improve performance, if needed, and if the employee is on track with training schedule establish in Stage A. Additionally, a progress review can happen several times during the year in an informal review session to discuss performance and training.
- o **Stage C: Annual Review (Before June 15)** The annual review is the final stage and happens just before the end of the evaluation year. At this point, the supervisor will review, evaluate, and rate the employees performance over the entire year. Additionally, the employee and supervisor can review training plan and schedule established in Stage A.
- Stage A through Stage C is repeated for each year. Each year, the supervisor and employee will review training forms and tracking matrix to ensure training is completed, tracked, and refreshed as outlined in the Training Plan and TTP Curriculum. EPRS Forms, Training Record Forms and Training Matrix will be saved in the Department Shared Drive.



# MA DPU | Standard Operating Guideline Manual

# Appendix C: Conflict of Interest Identification and

**Review Form** 



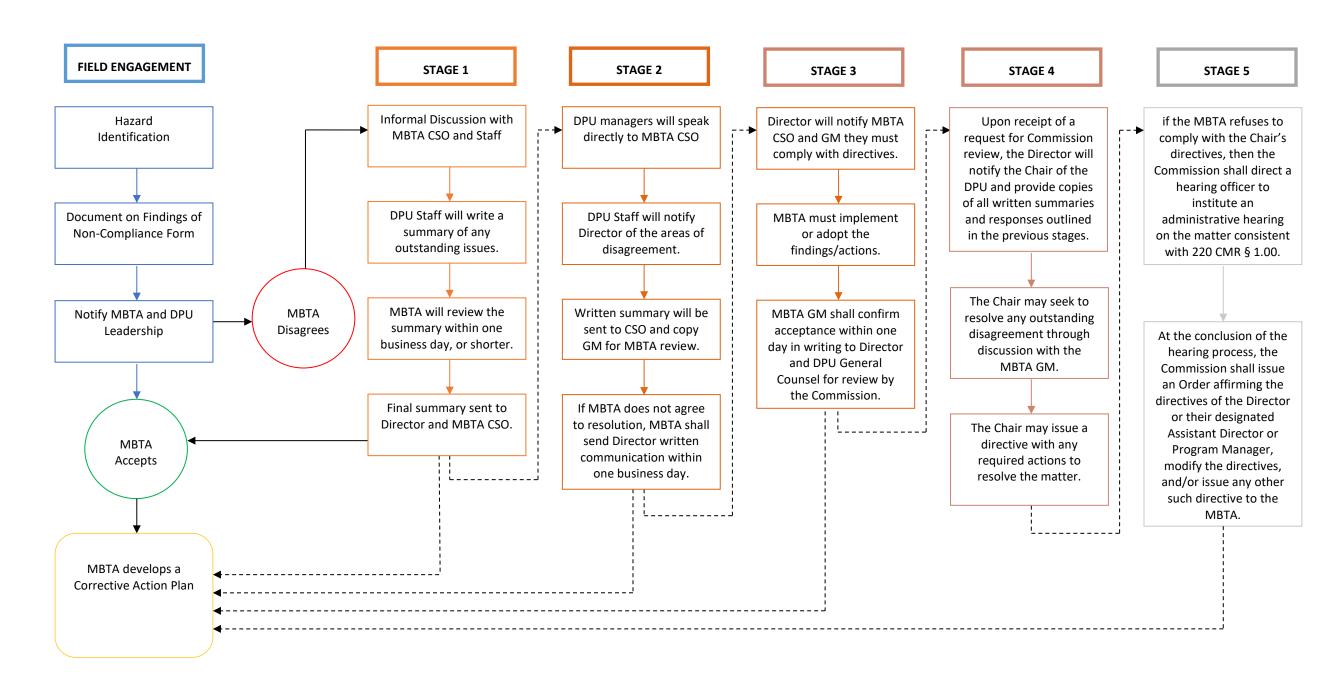
Conflict of Interest (COI) Identification and Review			
Date			
Name and Title of Staff Completing this Form			
Name of person or entity with a potential COI			
Describe the potential conflict			
Recommendation of Staff			
Assessment			



Resolution:				



# Appendix D: Dispute Resolution Process





# MA DPU | Standard Operating Guideline Manual

# Appendix E: FTA's Public Transportation Agency Safety Plan Review Checklist

### Available at:

https://www.transit.dot.gov/regulations-and-programs/safety/public-transportationagency-safety-program/asp-checklist-rail



# Appendix F: RTSD Risk Levels for Incident Types

# MA DPU RBI Risk Levels for MBTA Incident Types

DPU assigns for the purposes of Risk-Based Inspections, the following Risk Levels (High, Serious, Medium, and Low) to the Incident Types adopted by MBTA. (Note: Risk levels are subject to revision and update.)

#### MBTA Incident Types Rated "High" Risk Level

- Collision Train on Train
- Collision with Bicyclist
- Collision with Object
- Collision with Person
- Collision with MBTA Vehicle
- Collision with Vehicle
- Derailment Main Line
- Derailment Maintenance Vehicle
- Derailment Shop/Yard
- Near Miss
- Person Assault on Employee
- Person Assault on Transit Worker
- Person Door
- Person Pit
- Person ROW Trespasser
- Runaway Train

#### MBTA Incident Types Rated "Serious" Risk Level

- Construction Near Miss
- Fire/Smoke
- Hard Train Coupling
- Infrastructure/Equipment Mechanical
- Infrastructure/Equipment Other
- Infrastructure/Equipment Pantograph
- Infrastructure/Equipment Power/Electrical
- Infrastructure/Equipment Switch
- Infrastructure/Equipment Third Rail
- Infrastructure/Equipment Track
- Infrastructure/Equipment Wire/Overhead Catenary System
- Person Alighting
- Person Boarding
- Person Employee Injury

- Person Gap
- Person Personal Security Event
- Person Platform
- Security Suspicious Package
- Security System Security Event
- Split Switch Main Line
- Split Switch Yard
- Unsafe Condition
- Violation Clearance Violation
- Violation Door Violation
- Violation Improper Station Berthing
- Violation Rules Violation (Other)
- Violation Signal Violation
- Violation Speed Violation
- Violation Worksite Safety Violation
- Violation Wrong Route

## MBTA Incident Types Rated "Medium" Risk Level

• Person – Station (Other)

# MBTA Incident Types Rated "Low" Risk Level

- Person Elevator
- Person Escalator
- Person On Board
- Person Stairs



# MA DPU | Standard Operating Guideline Manual

# Appendix G: Disadvantages Business Enterprise Program Policy Statement

### Available at:

https://www.mass.gov/doc/dpu-dbe-program-plan-final-with-goal-setting-8-23-21/download