



**U.S. Department  
of Transportation**

**Federal Transit  
Administration**

**State Safety Oversight Audit of  
Massachusetts Department of Public Utilities (MDPU)  
Boston, MA**

Conducted by

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL TRANSIT ADMINISTRATION**

Office of Safety Oversight and Compliance

**On-Site/Virtual Interview Dates: July 16–23, 2024**

**Final Report Date: October 29, 2024**



October 29, 2024

**SENT VIA EMAIL**

Mr. James M. Van Nostrand  
Chair, Department of Public Utilities  
Commonwealth of Massachusetts  
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**Subject:** FINAL State Safety Oversight Program Audit Report of the Massachusetts Department of Public Utilities – July 16–23, 2024

Dear Mr. Van Nostrand,

Enclosed is the Federal Transit Administration’s (FTA) Final State Safety Oversight (SSO) Program audit report of the Massachusetts Department of Public Utilities (MDPU). This audit assessed MDPU’s implementation of FTA’s SSO program regulation 49 CFR part 674 (Part 674) and conformance to its own Program Standard and governing directives. The audit was conducted on-site in Boston, Massachusetts.

**Audit Process**

Prior to arriving on-site, the FTA Audit Team requested and reviewed documentation used by MDPU and Massachusetts Bay Transportation Authority (MBTA) to direct, manage, implement, and monitor the SSO program as specified in Part 674.

At the conclusion of the on-site audit on July 23, 2024, the FTA held an exit briefing and delivered key observations to MDPU representatives.

This audit is separate from the safety management inspection (SMI) conducted at MBTA and MDPU in 2022. Findings of noncompliance, or the lack thereof, do not reflect MDPU’s or MBTA’s progress towards compliance with the requirements of the SMI and the subsequent special directives.

**Comments on Draft Report**

FTA provided MDPU an opportunity to review the draft SSO audit report for errors of fact and to submit factual corrections to FTA.

On October 21, 2024 MDPU responded with no comments to the draft SSO audit report.

**Resolution of Findings**

There are no findings of noncompliance. FTA does not require further response for this audit.



We appreciate your cooperation and assistance in working with FTA to support this audit.

If you have any questions about the audit, please contact Joseph W. Powell, FTA SSO Program Manager, at 202-570-9354 or [joseph.powell@dot.gov](mailto:joseph.powell@dot.gov).

Sincerely,

Melonie Barrington, EdD.  
Director  
Office of Safety Oversight and Compliance

Enclosure: Final MDPU SSO 2024 Audit Report

cc: Ms. Staci Rubin, Commissioner, MDPU  
Mr. Robert Hanson, Director, Rail Transit Safety Division, MDPU  
Mr. Peter Butler, Regional Administrator, FTA Region 1  
Ms. Michelle Muhlanger, Deputy Regional Administrator, FTA Region 1  
Mr. Matthew Keamy, Director Program Management, FTA Region 1  
Ms. Francis Alomia, Regional Safety Officer, FTA



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## **Executive Summary**

### **Background**

The Massachusetts Department of Public Utilities (MDPU) is the designated agency for the Commonwealth of Massachusetts to carry out the State Safety Oversight (SSO) program responsibilities for the Massachusetts Bay Transportation Authority (MBTA) rail transit system.

The MBTA, locally referred to as “the T,” is responsible for three heavy rail routes and two light rail routes in Boston. Boston’s rail service began in the late 1890s with its Green Line. In August of 1964, the MBTA was created, expanding the district. The MBTA operates over 129 revenue miles of passenger rail services for heavy rail and light rail services across 121 stations. In fiscal year 2022, the five lines provided 342,162,399 unlinked passenger trips.

The MDPU SSO Program is an adjudicatory agency overseen by a three-member commission. Within the MDPU, the Transportation Oversight Division has direct responsibility as the State Safety Oversight Agency (SSOA) to carry out Federal safety requirements in its oversight of MBTA. This is the Federal Transit Administration’s (FTA) second audit of MDPU since FTA certified MDPU’s SSO program on March 19, 2018.

### **Scope of the Audit**

Federal regulation, 49 CFR Part 674.11, requires FTA to audit each State’s compliance of their SSO program at least triennially. The FTA Audit Team conducted its on-site audit of MDPU from July 16–23, 2024.

### **Summary of Findings**

The FTA audit did not identify findings of noncompliance for the MDPU SSO program. A finding of noncompliance is determined when FTA finds that a required element of an SSOA’s program does not meet the SSO Rule (49 CFR part 674) requirements.

Between Federal Fiscal Years 2013 and 2023, FTA apportioned \$14.9 million to MDPU to conduct safety oversight of its rail transit system. At the time of the on-site audit, MDPU had disbursed \$7 million. MDPU has \$7.9 million in unused apportioned funding.

### **Required Actions**

There are no findings of noncompliance and no require actions.

### **Conclusion**

MDPU has been certified under 49 CFR Part 674 and has an approved Program Standard to exercise safety of the MBTA.



## 1. Introduction

This report documents the FTA SSO Audit required under Part 674 of MDPU. Title 49 CFR part 674.11 requires FTA to monitor and evaluate SSOA compliance with FTA's SSO Rule on a triennial basis.

The FTA's SSO audit program is designed to:

- Review the implementation of Part 674 requirements by the SSOA;
- Assess the adequacy of resources and authority provided to the SSOA to carry out Part 674 requirements;
- Assess the technical capacity of the SSOA to implement Part 674 requirements; and
- Assess the agency's compliance with all other regulatory requirements.

### 1.1 Audit Scope

From July 16–23, 2024, the FTA conducted the on-site audit portion of MDPU's SSO program. The audit assessed MDPU's processes and implementation of FTA's SSO Rule, Part 674 for the rail transit agency (RTA) in its jurisdiction, the MBTA. This is the second audit of MDPU under FTA's SSO Final Rule, 49 CFR Part 674. FTA conducted the previous MDPU audit in October 2019. FTA's SSO audit focused on the following areas:

- The adequacy of MDPU resources and authority to carry out Part 674 requirements;
- MDPU's use of available financial assistance to develop and carry out SSO programs;
- The level of communication and coordination between MDPU and MBTA regarding safety issues;
- The effectiveness of the processes in place for MDPU and MBTA to identify, assess, communicate, and resolve hazards and vulnerabilities in both operations and in safety certification for current projects;
- The effectiveness of the processes used by MDPU to manage, review, approve, track, and close out corrective action plans (CAPs);
- The adequacy of the RTA's internal reviews and MDPU triennial audits in assessing PTASPs; and
- MDPU's technical capacity to implement Part 674 requirements.

### 1.2 Audit Methodology

The SSO audit process follows four major steps:

#### 1. Prior to On-Site Review

- FTA requested that MDPU submit specific documents and materials related to its SSO program and the safety plans of MBTA as applicable to SSO program rules.
- FTA reviewed the documents prior to conducting on-site interviews on July 16, 2024.



## 2. While On-Site

- FTA conducted interviews with MDPU staff and MBTA safety and operations personnel responsible for key safety programs and functions.
- FTA also conducted field reviews and/or verification activities.

## 3. Drafting and Reviewing Audit Report

- FTA provided MDPU an opportunity to review the draft SSO audit report for errors of fact and to submit factual corrections to FTA.
- On October 21, 2024 MDPU responded with no comments to the draft SSO audit report. This letter is included in Appendix B.

## 4. Findings Management

- If there are any findings, this report will include a tracking matrix that identifies each audit finding of noncompliance and the required actions.
- Open findings require a corrective action plan, including target action dates based on necessary implementation. Corrective action plans must be submitted to the FTA within 45 business days of the issuance of the final report.

### 1.3 Findings of Noncompliance

If FTA determines that a required element of an SSOA’s program does not meet the SSO rule requirements, FTA will issue a finding of noncompliance to be addressed through CAPs.

This audit did not identify any findings of noncompliance.

### 1.4 FTA Audit Team

The FTA Audit Team is led by an FTA Program Manager with a team of technical consultants. The work of the Program Manager In-Charge is managed by the FTA Office of Oversight and Compliance, Safety Oversight Division.

#### Audit Team

|               |                 |                           |
|---------------|-----------------|---------------------------|
| Joseph Powell | Program Manager | Safety Oversight Division |
| Angela Cutone | Program Analyst | U.S. DOT Volpe Center     |
| Dain Pankratz | Consultant      | Boyd Caton Group          |
| Laynie Weaver | Consultant      | Boyd Caton Group          |
| Jon Monceaux  | Consultant      | Boyd Caton Group          |
| Robert Moreno | Consultant      | Boyd Caton Group          |
| Kyle Fritz    | Consultant      | Boyd Caton Group          |

#### Audit Management

|                        |          |   |
|------------------------|----------|---|
| Dr. Melonie Barrington | Director | Office of Safety Oversight and Compliance |
| Loretta Bomgardner     | Chief    | Safety Oversight Division                 |





## 2. Program Management

For this portion of the audit, the FTA evaluated MDPU’s program management process as specified in Part 674:

- Part 674.3 – Applicability
- Part 674.5 – Policy
- Part 674.11 – State Safety Oversight Program
- Part 674.13 – Designation of Oversight Agency
- Part 674.15 – Designation of Oversight Agency for Multi-State System
- Part 674.25 – Role of the State Safety Oversight Agency
- Part 674.27 – State Safety Oversight Program Standards
- Part 674.41 – Conflicts of Interest

### 2.1 Legal Entity

#### **Basic Requirement: 49 CFR Part 674.11(c) State Safety Oversight Program**

Establish a state safety oversight agency, by State law, in accordance with the requirements of 49 United States Code (U.S.C.) 5329(c) and this part.

#### **Audit Evidence**

The legal authority for MDPU is derived from M.G.L [Massachusetts General Laws] Chapter 159 and from M.G.L. Chapter 161A Section 3(i), which state: “(1) 220 CMR [Code of Massachusetts Regulations] 151.00 establishes the standard of the Commonwealth of Massachusetts oversight required to implement the provisions of 49 U.S.C. 5329(e), 49 U.S.C. 5330, and 49 CFR Part 674, Rail Fixed Guideway Systems, State Safety Oversight.... (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 CFR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.”

MDPU 220 CMR Section 151.01 (1) states, “220 CMR 151.00 establishes the standard of the Commonwealth of Massachusetts oversight required to implement the provisions of 49 U.S.C. 5329(3), 49 U.S.C. 5330, and 49 CFR Part 674, Rail Fixed Guideway Systems, State Safety Oversight.”

Further, the MDPU Standard Operations Guideline Manual (SOG), Section 2.1.I states, “Within the DPU, the Transportation Oversight Division (Division), is the designated SSOA for the state of Massachusetts. As the SSOA, the Division is charged with overseeing rail transit equipment and operations at the Massachusetts Bay Transit Authority (MBTA) using the criteria and requirements set forth in 49 CFR Part 674.”

The FTA Audit Team reviewed legislation and Program Standard references to verify that MDPU is the designated SSOA.



There are no findings of noncompliance for this portion of the audit.

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## 2.2 Legal Independence from RTA

### **Basic Requirement: 49 CFR Part 674.41(a) Conflicts of Interest**

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 Part 674.13(b).

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (10) states, “The Department and the Transportation Authority operate as legally and financially independent agencies.”

The FTA Audit Team reviewed legislation and verified that MDPU is legally independent from MBTA. The FTA Audit Team also reviewed MDPU’s legal memo to FTA, dated January 5, 2024, which reaffirmed MDPU’s legal independence from MBTA. This memo was submitted as evidence required by Special Directive (SD) 22-13 from the FTA’s Safety Management Inspection (SMI) of MBTA.

There are no findings of noncompliance for this portion of the audit.

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## 2.3 Financial Independence from RTA

### **Basic Requirement: 49 CFR Part 674.11(f) State Safety Oversight Program**

Demonstrate that by law, the State prohibits any public transportation agency in the State from providing funds to the SSOA.

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (10) states, “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.”

There are no findings of noncompliance for this portion of the audit.

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## 2.4 Overlap of Transportation Services

### **Basic Requirement: 49 CFR Part 674.13(a) Designation of Oversight Agency**

The SSOA does not directly provide public transportation services in an area with a rail fixed guideway public transportation system the SSOA is obliged to oversee.

### **Audit Evidence**

During interviews, the FTA Audit Team verified that MDPU does not provide any type of public transportation services.



There are no findings of noncompliance for this portion of the audit.

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## 2.5 Employment Conflict of Interest

### **Basic Requirement: 49 CFR Part 674.41(b) Conflicts of Interest**

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 Part 674.13(b).

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (11) states, “The Department does not employ any individual who is also responsible for administering, or providing services to, the Transportation Authority.”

The FTA Audit Team reviewed the resource allocations and determined that MDPU staff did not present a conflict of interest with MBTA.

There are no findings of noncompliance for this portion of the audit.

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## 2.6 Contractor Conflict of Interest

### **Basic Requirement: 49 CFR Part 674.41(c) Conflicts of Interest**

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.

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (11) states, “The Department does not employ any individual who is also responsible for administering, or providing services to, the Transportation Authority.”

Additionally, MDPU SOG Section 2.6.III states, “Furthermore, a consultant cannot provide services to both the DPU and MBTA unless the FTA approves a waiver. Each contractor hired by the DPU must make a full disclosure on 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.”

During interviews, the FTA Audit Team confirmed that contractors working for MDPU’s SSO program do not present a conflict of interest with MDPU’s oversight of MBTA.

There are no findings of noncompliance for this portion of the audit.

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## 2.7 Acknowledgement of Responsibility

### **Basic Requirement: 49 CFR Part 674.11(a) State Safety Oversight Program**



At minimum, an SSO program must: (a) Explicitly acknowledge the State’s responsibility for overseeing the safety of the rail fixed guideway within the State.

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (3) states, “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 CFR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.”

MDPU SOG Section 2.1.II states, “As the SSOA, the Division has direct responsibility to carry out the safety requirements established in 49 CFR Part 674, the System Safety Program Standard (“Program Standard”), 220 CMR 151.00, and the procedures outlined in the Division’s Standard Operating Guidelines (“SOG”).”

The FTA Audit Team verified that 220 CMR 151.00 includes, and the SOG expands upon, MDPU’s SSO responsibilities. During on-site interviews, MDPU staff discussed their oversight duties and responsibilities consistent with requirements.

There are no findings of noncompliance for this portion of the audit.

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## **2.8 Establishment of Minimum Standards for Safety**

### **Basic Requirement: 49 CFR Part 674.25(a) Role of the State Safety Oversight Agency**

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 and the Public Transportation Safety Certification Training Program, the rules for Public Transportation Agency Safety Plans and all applicable Federal and State law.

### **Audit Evidence**

MDPU’s Program Standard is comprised of two documents: MDPU 220 CMR 151.00 dated December 15, 2017, and the SOG dated January 2024. MDPU 220 CMR Section 151.01 (1) it states, “220 CMR 151.00 establishes the standard of the Commonwealth of Massachusetts oversight required to implement the provisions of 49 U.S.C. 5329(e), 49 U.S.C. 5330, and 49 CFR Part 674, *Rail Fixed Guideway Systems, State Safety Oversight.*” 220 CMR Section 151.02 defines the SOG as, “The policies and procedures established by the State Safety Oversight Agency to implement the Program Standard,” giving the SOG the same weight of law as the CMR. MDPU is in the process of revising 220 CMR 151.00. The stated purpose of the revision is to remove provisional language regarding FTA regulations (i.e. Parts 659, 673, and 674), and to remove some specific program requirements. MDPU intends to transfer more of the specific requirements and procedures into the SOG to simplify Program Standard updates. Modifying the CMR requires an act of the state legislature and is expected to be completed sometime in 2026.



MDPU 220 CMR Section 151.01 (4) states, “Pursuant to 49 CFR 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 CFR Part 674.”

The FTA Audit Team verified that MDPU’s Program Standard outlines minimum Part 674 requirements. MDPU staff also discussed their oversight activities and responsibilities, including standards above the minimum requirements of Part 674.

MDPU provided an example of establishing increased requirements in response to a Green Line incident involving a train operator using an electronic device. MDPU, in coordination with MBTA’s General Manager, established a policy restricting train operators’ use of electronic devices while in the train cab. MDPU included the electronic device restriction in the Program Standard.

During interviews, the FTA Audit Team verified that The Program Standard includes references to minimum standards for safety and is the current governing standard for the SSO program.

There were no findings of noncompliance for this portion of the audit.

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## 2.9 Multi-State System Oversight Agency Designation

### **Basic Requirement: 49 CFR Part 674.15(a) Designation of Oversight Agency for Multi-State System**

In an instance of a rail fixed guideway public transportation system that operates in more than one State, all States in which that rail fixed guideway public transportation system operates must either:

- a) Ensure that uniform safety standards and procedures in compliance with 49 U.S.C. 5329 are applied to that rail fixed guideway public transportation system, through an SSO program that has been approved by the Administrator; or
- b) Designate a single entity that meets the requirements for an SSOA to serve as the SSOA for that rail fixed guideway public transportation system, through an SSO program that has been approved by the Administrator.

### **Audit Evidence**

MBTA does not have a multi-state rail system. This requirement is not applicable to MDPU.

There are no findings of noncompliance for this portion of the audit.

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## 2.10 Enforcement Authority

### **Basic Requirement: 49 CFR Part 674.13(a)(5) Designation of Oversight Agency**



The SSOA has investigative and enforcement authority with respect to the safety of all rail fixed guideway public transportation systems within the State.

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (3) states, “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 CFR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.”

The FTA Audit Team verified MDPU’s Program Standard includes enforcement authority. MDPU has the authority to issue stop orders and other restrictions through its commissioners. MBTA must appeal these stop orders and restrictions through the State Supreme Court and the Attorney General.

There are no findings of noncompliance for this portion of the audit.

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## **2.11 Investigative Authority**

### **Basic Requirements:**

#### **49 CFR Part 674.13(a)(5) Designation of Oversight Agency**

The SSOA has investigative and enforcement authority with respect to the safety of all rail fixed guideway public transportation systems within the State.

#### **49 CFR Part 674.25(c) Role of the State Safety Oversight Agency**

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 his or her authority under 49 U.S.C. 5329(f) or 49 U.S.C. 5330.

### **Audit Evidence**

MDPU 220 CMR Section 151.09 (2) states, “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.”

The FTA Audit Team verified MDPU’s Program Standard includes investigative authority. MDPU primarily delegates this responsibility to MBTA to conduct investigations on its behalf using investigation procedures required and approved by MDPU. MDPU then reviews and approves the MBTA’s final report. MDPU retains the option to conduct independent investigations with SSO investigation procedures outlined in MDPU’s Accident/Incident Investigation Manual for Rail Transit Safety Personnel.

The FTA Audit Team reviewed adopted accident reports and verified that MDPU does not formally conduct independent investigations but adopts MBTA’s investigation reports. Section 8 of this audit report provides additional details on accident investigations.



There are no findings of noncompliance for this portion of the audit.

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## 2.12 Adoption of Federal and State Laws

### **Basic Requirement: 49 CFR Part 674.11(b) State Safety Oversight Program**

At minimum, an SSO program must: (b) Demonstrate the State’s ability to adopt and enforce Federal and relevant State law for safety in rail fixed guideway public transportation systems.

#### **Audit Evidence**

MDPU 220 CMR Section 151.00 (3) states, “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 CFR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.”

MDPU SOG Section 2.7.III states, “The SOG explains the ways in which the DPU exercises its jurisdiction over the MBTA. See SOG Section 5.1 (explains how the DPU analyzes the sufficiency and thoroughness of a Final Investigation Report), SOG Section 5.5 (describes required contents of an acceptable CAP), and SOG Section 5.4 (explains how DPU monitors and tracks hazards at the MBTA). The SOG provides direction for Rail Transit staff, but it does not bind the DPU Commission to take any particular action or limit the action of the Commission.”

There are no findings of noncompliance for this portion of the audit.

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## 2.13 Allegations of Noncompliance

### **Basic Requirement: 49 CFR Part 674.25(c) Role of the State Safety Oversight Agency**

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 his or her authority under 49 U.S.C. 5329(f) or 49 U.S.C. 5330.

#### **Audit Evidence**

MDPU 220 CMR Section 151.00 (3) states, “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 CFR Part 674, the Department has authority to investigate any allegation of noncompliance with the Public Transportation Agency Safety Plan.”

MDPU SOG Section 2.7.III (b) further specifies, “The following are potential sources of allegations of rail property PTASP non-compliance.

- General Public, including complaints received via the DPU’s website
- Patrons and Riders
- Rail Property Employees, including the Employee Safety Reporting System





- Rail Property Safety Department
- SSO Program Employees
- Federal Transit Administration (“FTA”)
- Others”

MDPU participates in MBTA safety committees to verify that allegations are resolved. The FTA Audit Team reviewed safety committee minutes for April 2024 and May 2024 and verified MDPU participation.

There are no findings of noncompliance for this portion of the audit.

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## 2.14 Ongoing Communication

### **Basic Requirement: 49 CFR Part 674.27(a)(1) State Safety Oversight Program Standards**

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.

### **Audit Evidence**

MDPU 220 CMR Section 151.01 states:

- “(5) The Department and the Transportation Authority shall meet quarterly, during the months of January, April, July, and October, to discuss safety concerns.”
- “(6) The Department and the Accountable Executive of the Transportation Authority shall meet at least annually.”
- “(7) The Department and the Board of Directors of the Transportation Authority shall meet at least annually.”
- “(8) The Department and the Chief Safety Officer of the Transportation Authority shall meet at least monthly.”

During interviews with MDPU and MBTA, the FTA Audit Team reviewed a sample of meeting agendas and minutes to confirm that there is consistent and ongoing communication between both agencies, including regular meetings between MDPU and MBTA personnel to discuss CAPs and investigations. These communications include regular meetings between MDPU leadership and the MBTA chief safety officer.

There are no findings of noncompliance for this portion of the audit.

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### 3. Grant Program

For this portion of the audit, the FTA evaluated MDPU grant program processes and activities as specified in: Part 674.17 – Eligibility of Federal financial assistance.

#### 3.1 20-percent Non-Federal Match

##### **Basic Requirement: 49 CFR Part 674.17(e) Non-Federal shares of the eligible expenses**

The non-Federal share of the expenses eligible for reimbursement under a grant for State Safety Oversight activities may not be comprised of Federal funds, any funds received from a public transportation agency, or any revenues earned by a public transportation agency.

##### **Audit Evidence**

Through document reviews and on-site interviews, the FTA Audit Team verified that MDPU's 20-percent match of Federal funds comes from the Commonwealth of Massachusetts.

MDPU did not receive funding from the RTA and the required 20-percent match for Federal funding was available.

There are no findings of noncompliance for this portion of the audit.

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#### 3.2 Obligation and Disbursing of Federal Funds

##### **Basic Requirements:**

##### **49 CFR Part 674.17(a)**

In accordance with 49 U.S.C. 5329(e)(6), FTA will make grants of Federal financial assistance to eligible States to help the States develop and carry out their SSO programs. This Federal financial assistance may be used for reimbursement of both the operational and administrative expenses of SSO programs, consistent with the uniform administrative requirements for grants to States under 2 CFR Parts 200 and 1201. The expenses eligible for reimbursement include, specifically, the expense of employee training and the expense of establishing and maintaining an SSOA in compliance with 49 U.S.C. 5329(e)(4).

##### **2 CFR Part 200.303 (a)**

Establish and maintain effective internal control over the Federal award that provides reasonable assurance that the non-Federal entity is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the Federal award. The internal controls should follow guidance in “Standards for Internal Control in the Federal Government” issued by the Comptroller General of the United States and the “Internal Control Integrated Framework”, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

##### **2 CFR Part 200.303 (d)**

Take prompt action when instances of noncompliance are identified including noncompliance identified in audit findings.



### **FTA Circular 5010.1E Chapter VI (2)(f)(3)(a)(2)**

Permit the tracing of federal assistance to a level of expenditures adequate to establish that such federal assistance has been used according to the federal statutes, regulations, and the terms and conditions of the Award.

#### **Audit Evidence**

Between Federal Fiscal Years 2013 and 2023, FTA apportioned \$14.9 million to MDPU to conduct safety oversight of its rail transit system. At the time of the on-site audit, MDPU had disbursed \$7 million. MDPU has \$7.9 million in unused apportioned funding.

During the FTA Audit, MDPU summarized the oversight activities, training, inspections, and audits that resulted in typical grant expenditures. MDPU explained that the budget for the SSO program is greater than the Federal funding and expects an increase in grant expenditure.

There are no findings of noncompliance for this portion of the audit.

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## **4. Program Standard**

For this portion of the audit, the FTA evaluated MDPU Program Standard as specified in: Part 674.27 – State Safety Oversight Program Standards.

### **4.1 SSOA Program Standard Adoption and Distribution**

#### **Basic Requirement: 49 CFR Part 674.27(a)(2) State Safety Oversight Program Standards**

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.

#### **Audit Evidence**

MDPU’s Program Standard is comprised of two documents: MDPU 220 CMR 151.00 dated December 15, 2017, and the SOG dated January 2024. MDPU 220 CMR Section 151.01 (1) states, “220 CMR 151.00 establishes the standard of the Commonwealth of Massachusetts oversight required to implement the provisions of 49 U.S.C. 5329(e), 49 U.S.C. 5330, and 49 CFR Part 674, *Rail Fixed Guideway Systems, State Safety Oversight.*” 220 CMR Section 151.02 defines the SOG as, “The policies and procedures established by the State Safety Oversight Agency to implement the Program Standard,” giving the SOG the same weight of law as the CMR.

The FTA Audit Team reviewed the MDPU Program Standard then conducted interviews and MBTA comments to verify that MDPU provided MBTA with the required review and comment period for updates to the SOG.

There are no findings of noncompliance for this portion of the audit.

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## 4.2 SSOA Program Standard Minimum Requirements

### **Basic Requirement: 49 CFR Part 674.27(a) State Safety Oversight Program Standards**

At minimum, the program standard must meet the following requirements:

- (1) Program management
- (2) Program standard development
- (3) Program policy and objectives
- (4) Oversight of Rail Public Transportation Agency Safety Plans and Transit Agencies' internal safety reviews
- (5) Triennial SSO audits of Rail Public Transportation Agency Safety Plans
- (6) Accident notification
- (7) Investigations
- (8) Corrective actions

### **Audit Evidence**

The MDPU Program Standard specifies compliance with 49 CFR Part 674 and includes sections for each of the requirements defined in 674.27(a):

- (151.01) Purpose and Scope
- (151.03) Program Standard and Minimum Standards for Safety
- (151.05) Internal Safety Audits
- (151.06) Hazard Management Process
- (151.07) Corrective Actions
- (151.08) Department Notifications
- (151.09) Accident Notification and Investigations
- (151.10) Management and Oversight Process
- (151.11) Track Inspection
- (151.12) Track Maintenance
- (151.13) Use or Possession of Electronic Device While on Duty
- (SOG Section 2.1) Description of the SSO Program
- (SOG Section 2.4) Program Standard Reviews and Updates
- (SOG Section 3.1) PTASP Review and Approval Process
- (SOG Section 5.1) Notifications and Investigations
- (SOG Section 5.3) Triennial Safety Program Audit
- (SOG Section 5.5) Corrective Action Plans



- (SOG Section 5.9) Inspection and Verification Plans

There are no findings of noncompliance for this portion of the audit.

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## 5. Staffing and Qualifications of SSO Personnel and Contractors

For this portion of the audit, the FTA evaluated MDPU staffing, and qualifications of personnel as specified in:

- Part 674.11 – (d) and (e) State Safety Oversight Program
- Part 674.25 – (f) Role of the State Safety Oversight Agency
- Part 674.35 – (c) Investigations

### 5.1 SSO Program Workload Assessment

#### Basic Requirement: 49 CFR Part 674.11(d) State Safety Oversight Program

Demonstrate that the State has determined an appropriate staffing level for the State safety oversight agency commensurate with the number, size, and complexity of the rail fixed guideway public transportation systems in the State, and that the State has consulted with the Administrator for that purpose.

#### Audit Evidence

The FTA Audit Team reviewed MDPU’s 2023 workload assessment. The MDPU 2023 Workload Assessment recommended 17 FTEs at 1,800 hours/FTE. Since 2021, MDPU has increased staffing from nine to 17 FTEs. Table 5.1 below shows how MDPU employee resources have increased since 2021, with limited contract support. Note that the MDPU’s FTE calculation and FTA’s standard FTE calculation is included for reference.

| <b>Calendar Year</b> | <b>MDPU Staff and Contractor Hours</b> | <b>FTEs Using MDPU Calculations (Hours / 1,800)</b> | <b>FTEs Using FTA Calculations (Hours/2,000)</b> |
|----------------------|--|---|--|
| 2021                 | 16,643                                 | 9.3   | 8.3  |
| 2022                 | 16,482                                 | 9.2   | 8.2  |
| 2023                 | 25,973                                 | 14.4  | 12.9   |
| 2024                 | 30,600 (expected)                      | 17.0  | 15.3   |

During interviews the MDPU confirmed that staff from the MDPU’s Transportation Oversight Division were transferred in 2023 to a new “Rail Transit Safety Division (RTSD)” to focus solely on SSO Program activities.

There are no findings of noncompliance for this portion of the audit.

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## 5.2 Staffing Qualifications

### **Basic Requirement: 49 CFR Part 674.25(f) Role of the State Safety Oversight Program**

All personnel and contractors employed by an SSOA must comply with the requirements of the Public Transportation Safety Certification Training Program [49 CFR Part 672] as applicable.

### **49 CFR Part 672.21 Records**

- (a) *General Requirement.* Each recipient shall ensure that its designated personnel are enrolled in the PTSCTP [Public Transportation Safety Certification Training Program]. Each recipient shall ensure that designated personnel update their individual training record as he or she completes the applicable training requirements of this part.
- (b) *SSOA Requirement.* Each SSOA shall retain a record of the technical training completed by its designated personnel in accordance with the technical training requirements of Appendix A to this part. Such records shall be retained by the SSOA for at least five (5) years from the date the record is created.

### **Audit Evidence**

MDPU 220 CMR 151.10 (3)(a), states, “Before March 15th of each year, the Department must submit the following material to the FTA ... 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.”

MDPU SOG, Section 2.2, B states, “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.”

The FTA Audit Team reviewed MDPU’s Technical Training Plan (TTP), updated on July 1, 2023, for compliance with Part 672 requirements. MDPU’s TTP included activities that support the required SSO program competencies provided by FTA guidelines. The TTP included 22 competency areas for the SSO program and summarized the MDPU staff supporting each competency area. The FTA Audit Team also reviewed PTSCTP Individual Training Plans (ITP) for MDPU employees and verified that MDPU met PTSCTP requirements.

There are no findings of noncompliance for this portion of the audit.

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## **6. Public Transportation Agency Safety Plan (PTASP)**

For this portion of the audit, the FTA evaluated MDPU review and approval documentation, and minimum requirements of their RTA’s PTASPs as specified in:

Part 674.13 – (a)(4) Designation of Oversight Agency

Part 674.25 – (b) Role of the State Safety Oversight Agency



Part 674.29 – (b)(c) Public Transportation Agency Safety Plans: General Requirements

Part 674.37 – (a) Corrective Action Plans

Part 673.13 – (a) Certification of Compliance

Part 672 – Appendix A Public Transportation Safety Certification Training Program

Part 673.11 – (a)(c) Safety Plans General Requirements

Part 673.21 – Safety Management Systems General Requirements

Part 673.31 – Safety Plan Documentation

## 6.1 PTASP Review and Approval

### **Basic Requirement: 49 CFR 673.13(a) Certification of Compliance**

Each transit agency, or State as authorized in § 673.11(d), must certify that it has established a Public Transportation Agency Safety Plan meeting the requirements of this part one year after July 19, 2019. A State Safety Oversight Agency must review and approve a Public Transportation Agency Safety Plan developed by rail fixed guideway system, as authorized in 49 U.S.C. 5329(e) and its implementing regulations at 49 CFR Part 674.

#### **NOTE:**

- *FTA published a Notice of Enforcement Discretion on April 22, 2020, effectively extending the PTASP compliance deadline from July 20, 2020, to December 31, 2020.*
- *FTA published a second Notice of Enforcement Discretion on December 11, 2020, effectively extending the PTASP compliance deadline to July 20, 2021.*

### **49 CFR Part 674.13(a)(4) Designation of Oversight Agency**

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 CFR Part 674.25(b) Role of the State Safety Oversight Agency**

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).

### **49 CFR Part 674.29(c) Public Transportation Agency Safety Plans: General Requirements**

In an instance in which an SSOA does not approve a Public Transportation Agency Safety Plan, the SSOA must provide a written explanation, and allow the RTA an opportunity to modify and resubmit its Public Transportation Agency Safety Plan for the SSOA's approval.



**49 CFR Part 674.37(a) Corrective Action Plans**

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. A CAP must describe, specifically, the actions the RTA will take to minimize, control, correct, or eliminate the risks and hazards 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.

**Audit Evidence**

MDPU 220 CMR 151.03 (4) states, “The Transportation Authority shall conduct an annual review of the [PTASP] on or before August 1<sup>st</sup> of each year and update it as necessary to ensure the [PTASP] remains current. The Transportation Authority shall submit an updated [PTASP], and any accompanying procedures, for Department review and approval on or before September 1<sup>st</sup> of each year. If no updates are required, the Transportation Authority shall notify the Department in writing before September 1<sup>st</sup> of each year.”

MDPU SOG Section 3.1.IV.A states, “Upon receipt of the MBTA’s final PTASP, the Program Manager will issue written approval to the MBTA within fifteen (15) business days.”

As shown in Table 6.1 below, MBTA’s 2023 PTASP was approved by the agency’s Safety Committee on August 21, 2023, followed by the Board of Directors’ approval on August 24, 2023. Documentation provided by the MDPU indicates the MBTA’s 2023 PTASP was submitted to the MDPU on September 1, 2023, and approved by the MDPU on September 25, 2023 (25 business days following the submission of the PTASP).

| <b>Table 6.1 – MDPU Approval of MBTA’s PTASP</b> |                                       |                            |                                |                           |
|--|---------------------------------------|----------------------------|--------------------------------|---------------------------|
| <b>PTASP</b>                                     | <b>Safety Committee Approval Date</b> | <b>Board Approval Date</b> | <b>Submission Date to MDPU</b> | <b>MDPU Approval Date</b> |
| MBTA (2023)                                      | August 21, 2023                       | August 24, 2023            | September 1, 2023              | September 25, 2023        |

There are no findings of noncompliance for this portion of the audit.

**6.2 PTASP Minimum Requirements**

**Basic Requirement:**

**49 CFR Appendix A to Part 672 Public Transportation Safety Certification Training Program**

(1) FTA/SSOA personnel and contractor support, and public transportation agency personnel with direct responsibility for safety oversight of rail fixed guideway public transportation systems:





- (a) One (1) hour course on SMS Awareness - e-learning delivery (all required participants)
- (b) Two (2) hour courses on Safety Assurance - e-learning delivery (all required participants)
- (c) Twenty (20) hours on SMS Principles for Transit (all required participants)
- (d) Sixteen (16) hours on SMS Principles for SSO Programs (FTA/SSOA/contractor support personnel only)
- (e) TSSP curriculum (minus Transit System Security (TSS) course) (all required participants - credit will be provided if participant has a Course Completion Certificate of previously taken TSSP courses)
  - (i) Rail System Safety (36 hours)
  - (ii) Effectively Managing Transit Emergencies (32 hours)
  - (iii) Rail Incident Investigation (36 hours)

#### **49 CFR Part 673.11 Safety Plans General Requirements**

(a)(1) The Public Transportation Agency Safety Plan, and subsequent updates, must be signed by the Accountable Executive and approved by the agency's Board of Directors, or an Equivalent Authority.

(a)(2) The Public Transportation Agency Safety Plan must document the processes and activities related to Safety Management System (SMS) implementation, as required under subpart C of this part.

(a)(3) The Public Transportation Agency Safety Plan must include performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.

(a)(4) The Public Transportation Agency Safety Plan must address all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan. Compliance with the minimum safety performance standards authorized under 49 U.S.C. 5329(b)(2)(C) is not required until standards have been established through the public notice and comment process.

(a)(5) Each transit agency must establish a process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

(a)(6) A rail transit agency must include or incorporate by reference in its Public Transportation Agency Safety Plan an emergency preparedness and response plan or procedures that addresses, at a minimum, the assignment of employee responsibilities during an emergency; and coordination with Federal, State, regional, and local officials with roles and responsibilities for emergency preparedness and response in the transit agency's service area.

(c) A transit agency must maintain its Public Transportation Agency Safety Plan in accordance with the recordkeeping requirements in subpart D of this part.





#### **49 CFR Part 673.21 Safety Management Systems General Requirements**

Each transit agency must establish and implement a Safety Management System under this part. A transit agency Safety Management System must be appropriately scaled to the size, scope and complexity of the transit agency and include the following elements: (a) Safety Management Policy as described in 673.23; (b) Safety Risk Management as described in 673.25; (c) Safety Assurance as described in 673.27; and (d) Safety Promotion as described in 673.29.

#### **49 CFR Part 673.31 Safety Plan Documentation**

At all times, a transit agency must maintain documents that set forth its Public Transportation Agency Safety Plan, including those related to the implementation of its Safety Management System (SMS), and results from SMS processes and activities. A transit agency must maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that the agency uses to carry out its Public Transportation Agency Safety Plan. These documents must be made available upon request by the Federal Transit Administration or other Federal entity, or a State Safety Oversight Agency having jurisdiction. A transit agency must maintain these documents for a minimum of three years after they are created.

#### **49 CFR Part 674.25 Role of the State Safety Oversight Agency**

(b) 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.

#### **49 CFR Part 674.29 Public Transportation Agency Safety Plan General Requirements**

(b) In determining whether a Public Transportation Agency Safety Plan is compliant with 49 CFR Part 673, an SSOA must determine, specifically, whether the Public Transportation Agency Safety Plan is approved by the RTA's board of directors or equivalent entity; sets forth a sufficiently explicit process for safety risk management, with adequate means of risk mitigation for the rail fixed guideway public transportation system; includes a process and timeline for annually reviewing and updating the safety plan; includes a comprehensive staff training program for the operations personnel directly responsible for the safety of the RTA; identifies an adequately trained safety officer who reports directly to the general manager, president, or equivalent officer of the RTA; includes adequate methods to support the execution of the Public Transportation Agency Safety Plan by all employees, agents, and contractors for the rail fixed guideway public transportation system; and sufficiently addresses other requirements under the regulations at 49 CFR Part 673.

#### **Audit Evidence**

MDPU 220 151.03 (1) states, “The Transportation Authority shall develop and implement a written Public Transportation Agency Safety Plan (PTASP) within one calendar year after publication of 49 CFR Part 673, Public Transportation Agency Safety Plans.”

MDPU SOG Section 3.1 establishes the requirements for PTASP content and procedures for review and approval. “The MBTA’s Public Transportation Agency Safety Plan (“PTASP”) is the comprehensive agency safety plan (“Agency Safety Plan”), required by 49 U.S.C. 5329... This procedure explains the SSOA’s PTASP review and approval process.”



MDPU SOG Section 3.1. IV includes a checklist that MDPU uses when reviewing and approving revisions to the MBTA's PTASP. This checklist includes all elements required in Parts 673 and 674.

The FTA Audit Team reviewed MBTA's 2023 PTASP and verified compliance with 49 CFR Part 673 and the MDPU Program Standard.

There are no findings of noncompliance for this portion of the audit.

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## 7. RTA Safety Reviews

For this portion of the audit, the FTA evaluated MDPU oversight activities for its RTA's internal safety reviews as specified in: Part 674.27(a)(4) State Safety Oversight Program Standards.

### 7.1 RTA Safety Review Requirements

#### **Basic Requirement: 49 CFR Part 674.27(a)(4) State Safety Oversight Program Standards**

The SSO program standard must explain the role of the SSOA in overseeing an RTA's execution of its Public Transportation Agency Safety Plan and any related safety reviews of the RTA's fixed guideway public transportation system. The program standard must describe the process whereby the SSOA will receive and evaluate all material submitted under the signature of an RTA's accountable executive. Also, the program standard must establish a procedure whereby an RTA will notify the SSOA before the RTA conducts an internal review of any aspect of the safety of its rail fixed guideway public transportation system.

#### **Audit Evidence**

MDPU 220 CMR Section 151.05 (1) states, "The Transportation Authority shall develop and document in its [PTASP] a process requiring ongoing internal safety audits over a three-year cycle to evaluate compliance with, and measure the effectiveness of, the [PTASP]."

Additionally, Section 151.05(2)(f) requires MBTA to "Notify the Department in writing of the time and location of an internal audit at least 30 days in advance."

MBTA PTASP Section 6.5.1 states, "The comprehensive internal safety audit process verifies the Safety Plan is effectively implemented; performing its intended functions; achieving its performance objectives; and ultimately safeguarding MBTA personnel and the public from safety risks." The PTASP references a separate MBTA Internal Safety Audit Program, Revision 1, dated September 13, 2021.

MBTA Internal Safety Audit Program Section 1.2 specifies, "All MBTA departments that conduct safety-related activities or implement safety-related programs are subject to regulated Internal Safety Audits on a regular basis, in addition to unscheduled audits and inspections. Specifically, MBTA Internals Safety Audits cover MBTA bus, paratransit, light and heavy rail activities including but not limited to operations, engineering, maintenance, administration, Capital Delivery; and including all equipment, vehicles, systems, sub-systems, and infrastructure."



The FTA Audit Team reviewed MBTA’s internal safety review notifications for the recent three-year cycle and verified that MDPU received the 30-day notification as required as shown in Table 7.1.

| <b>Table 7.1 – MBTA Internal Safety Review 30-day Notifications to MDPU</b> |                          |                             |
|---|--------------------------|-----------------------------|
| <b>Topic</b>  | <b>Notification Date</b> | <b>Internal Review Date</b> |
| Maintenance of Way  | May 5, 2024              | August 1, 2024              |
| Light Rail Transportation & Training  | May 6, 2024              | August 5, 2024              |
| Occupational Health Services  | May 7, 2024              | July 8, 2024                |
| Rail Vehicle Maintenance  | May 10, 2024             | June 26, 2024               |

The FTA Audit Team also verified that MBTA internal safety review reports included different MBTA departments subject to PTASP requirements for the three-year period. MBTA conducts reviews with each department for each applicable PTASP element and summarizes the observations in the review checklists. MDPU informed the FTA Audit team that MDPU assigns representatives to observe the MBTA internal safety reviews.

There are no findings of noncompliance for this portion of the audit.

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## **8. Investigations and Reviews**

For this portion of the audit, the FTA evaluated MDPU investigation, review activities and documentation as specified in:

- Part 674.27 – (a)(7) State Safety Oversight Program Standards
- Part 674.33 – Notification of Accidents
- Part 674.35 – Investigations

### **8.1 Notifications**

#### **Basic Requirement: 49 CFR Part 674.33(a) Notification of Accidents**

Two-Hour Notification. In addition to the requirements for accident notification set forth in an SSO program standard, an RTA must notify both the SSOA and the FTA within two hours of any accident occurring on a rail fixed guideway public transportation system. The criteria and thresholds for accident notification and reporting are defined in a reporting manual developed for the electronic reporting system specified by FTA as required in Part 674.39(b), and in appendix A.

#### **Audit Evidence**

MDPU SOG Section 5.1.III.A.1 requires the MBTA to report all accidents as defined by 49 CFR Part 674 within two hours to the MDPU and to the FTA. It describes the process MBTA uses to



make those reports. “If there is an Accident, the MBTA has established a procedure 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 (“OCC”).”

The FTA Audit team evaluated MDPU’s Accident Tracking Log from January 2023 through June 2024. MBTA reported 98% of all accidents meeting the definition in Part 674 to the MDPU and FTA within two hours. (Table 8.1).

| <b>Date Range</b> | <b># Missed / # Accidents</b> | <b>% missed</b> |
|-------------------|-------------------------------|-----------------|
| 2023              | 1 / 24                        | 4%              |
| Jan-Jun 2024      | 0 / 23                        | 0%              |
| <b>Total</b>      | <b>1 / 47</b>                 | <b>2%</b>       |

There are no findings of noncompliance for this portion of the audit.

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## **8.2 Accident Investigation Requirements**

### **Basic Requirement: 49 CFR Part 674.35(a) Investigations**

An SSOA must investigate or require an investigation of any accident and 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 an accident, 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 accident or incident, the SSOA and the RTA must coordinate their investigations in accordance with the SSO program standard and any agreements in effect.

### **Audit Evidence**

MDPU 220 CMR Section 151.09 (2) states, “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.”

MDPU 220 CMR Section 151.09 (4) further states, “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.”

MDPU SOG Section 5.1.III.C states, “The DPU requires the MBTA to conduct investigations on its behalf. DPU staff will lead an investigation under unusual circumstances only. MBTA has developed standard investigation procedures, and those procedures are adopted and approved by



the DPU to allow MBTA to complete these investigations and report their findings to the DPU ... DPU staff may observe MBTA staff during portions of investigations, such as an on-scene response or records reviews. DPU may also observe MBTA by attending and observing all meetings of the investigation team and reviewing all versions of reports and briefs resulting from investigations.”

The FTA Audit Team verified that MDPU reviews MBTA investigations as part of monthly coordination meetings and other activities. MDPU participates in the investigations and conducts independent reviews of MBTA findings of causation. All investigations were conducted pursuant to the accident investigation procedures.

There are no findings of noncompliance for this portion of the audit.

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### 8.3 Accident Investigation Reports

#### **Basic Requirement: Part 674.35(b) Investigations**

Within a reasonable time, an SSOA must issue a written report on its investigation of an accident or review of an RTA’s accident 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 accident; and set forth a corrective action plan, as necessary or appropriate. The SSOA must formally adopt the report of an accident 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.

#### **Audit Evidence**

MDPU 220 CMR Section 151.09 (5) states, “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.”

MDPU 220 CMR Section 151.09 (7) further states, “Upon receipt of the Transportation Authority’s final report, the Department has 15 days in which to review and approve 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.”

MDPU SOG Section 5.1.III.I states, “After 60 days, the MBTA is required to submit a final investigation report to the DPU. DPU requires that an MBTA investigation report be standardized ... A probable cause should be selected from the list below ... Additional information from the MBTA may be required by the DPU based on the severity of the safety event or complexity of the investigation.”

The FTA Audit Team focused on investigation reports produced since 2023 to review the updated MDPU and MBTA accident procedures resulting from the FTA SMI and SD 22-13. As shown in Table 8.2 below, the FTA Audit Team reviewed nine MBTA investigation reports,



including the two National Transportation Safety Board (NTSB) investigation reports on July 30, 2021, and April 10, 2022. MBTA submitted all reports to MDPU on-time. All exchanges between MDPU and MBTA regarding required revisions to reports were conducted in a timely manner. MDPU ensured that all investigations were conducted thoroughly, causal and contributing factors were identified, and subsequent CAPs were developed as necessary.

| <b>Table 8.2 – MBTA Investigation Reports Reviewed for FTA Audit</b> |                 |  |                                  |
|--|-----------------|--|----------------------------------|
| <b>Event Date</b>  | <b>Type</b>     | <b>Event Description</b>   | <b>Status of Accident Report</b> |
| 07/30/2021   | Train vs. Train | Trolley Collision with Derailment (Green Line)                                 | Adopted/Closed                   |
| 04/10/2022   | Fatality        | Door Issue Resulting Passenger Fatality (Red Line)                             | Adopted/Closed                   |
| 09/26/2022   | Fatality        | Third rail electrocution resulting in two fatalities (Red Line)                | Adopted/Closed                   |
| 01/26/2023   | Split Switch    | Split switch at Copley Junction (Green Line)                                   | Adopted/Closed                   |
| 08/02/2023   | Serious Injury  | Track worker electrocution (Red Line)  | Adopted/Closed                   |
| 08/10/2023   | Near Miss       | Near Miss at North Quincy Crossover (Red Line)                                 | Adopted/Closed                   |
| 11/29/2023   | Near Miss       | Near miss between Community College and Sullivan Square Stations (Orange Line) | Adopted/Closed                   |
| 04/01/2024   | Other           | Signal Violation between Union Square and Lechmere (Green Line)                | Open                             |
| 04/17/2024   | Derailment      | Hi-Rail Vehicle Derailment in Diversion Zone (Blue Line)                       | Open                             |

There are no findings of noncompliance for this portion of the audit.

## 8.4 RTA Investigations

### **Basic Requirement: 49 CFR Part 674.27(a)(7) State Safety Oversight Program Standards, Investigations.**

The SSO program standard must identify thresholds for accidents that require the RTA to conduct an investigation. Also, the program standard must address how the SSOA will oversee an RTA’s 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.

### **Audit Evidence**

MDPU 220 CMR Section 151.09 (2) states, “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.”





MDPU SOG Section 5.1.III.C states, “The DPU requires the MBTA to conduct investigations on its behalf. DPU staff will lead an investigation under unusual circumstances only. MBTA has developed standard investigation procedures, and those procedures are adopted and approved by the DPU to allow MBTA to complete these investigations and report their findings to the DPU. DPU staff may observe MBTA staff during portions of investigations, such as an on-scene response or records reviews. DPU may also observe MBTA by attending and observing all meetings of the investigation team and reviewing all versions of reports and briefs resulting from investigations. At a minimum, DPU staff will 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)
- Evacuation for life safety reasons
- Substantial or significant damage
- Multiple injuries, one or more serious injuries, or one or more fatalities
- Split switch
- Any significant interruption of train service operations due to a reportable event
- A recurring issue on any line or other event as indicated by the Rail Transit Safety Division (“RTSD”) Director
- Any incident that warrants the DPU SSO program presence at the scene.”

“MDPU staff may provide advance notice to the MBTA when DPU will attend any meeting or site visit related to an MBTA investigation for coordination purposes. DPU staff may attend without notice.”

MDPU 220 CMR Section 151.07 (8) states, “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.”

The FTA Audit Team verified that MDPU personnel coordinate with MBTA staff for accident investigations from event notification to CAP development. Further, MDPU coordinated with NTSB and MBTA for the July 30, 2021, and the April 10, 2022, investigations listed in Table 8.2. MDPU has approved CAPs for the investigation report findings and recommendations.

There are no findings of noncompliance for this portion of the audit.

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## **9. SSOA Triennial Audits Verification of PTASP Implementation**

For this portion of the audit, MDPU three-year period covered oversight of PTASP. The FTA evaluated MDPU triennial review documentation of the PTASP as specified in:



- Part 674.31 – Triennial Audits, General Requirements
- Part 674.13 – (a) Designation of Oversight Agency
- Part 674.27 – (a)(5) Triennial SSOA Audits of PTASPs
- Part 672 – Appendix A Public Transportation Safety Certification Training Program
- Part 673.11 – (a)(c) Safety Plans General Requirements
- Part 673.21 - Safety Management Systems General Requirements
- Part 673.31 – Safety Plan Documentation
- Part 674.9 – (c) Transition from Previous Requirements for State Safety Oversight
- Part 674.25 – (b) Role of the State Safety Oversight Agency
- Part 674.29 – (b) Public Transportation Agency Safety Plan General Requirements

## 9.1 PTASP Audit Requirements

### **Basic Requirement: 49 CFR 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 System Safety Program Plan/Public Transportation Agency Safety Plan. Alternatively, an SSOA may conduct the audit on an on-going 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.

### **Basic Requirement: 49 CFR 673.13(a) Certification of Compliance**

Each transit agency, or State as authorized in § 673.11(d), must certify that it has established a Public Transportation Agency Safety Plan meeting the requirements of this part one year after July 19, 2019. A State Safety Oversight Agency must review and approve a Public Transportation Agency Safety Plan developed by rail fixed guideway system, as authorized in 49 U.S.C. 5329(e) and its implementing regulations at 49 CFR Part 674.

### **49 CFR Part 674.13(a)(4) Designation of Oversight Agency**

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 CFR Part 674.13(a)(6) Designation of Oversight Agency**

At least once every three years, the SSOA audits every rail fixed guideway public transportation system's compliance with the public transportation agency safety plan required by 49 U.S.C. 5329(d).

### **49 CFR Part 674.27(a)(5) Triennial SSOA Audits of PTASPs**

Triennial SSOA audits of Rail Public Transportation Agency Safety Plans. The SSO program standard must explain the process the SSOA will follow and the criteria the SSOA will apply in





conducting a complete audit of the RTA's compliance with its Public Transportation Agency Safety Plan at least once every three years, in accordance with 49 U.S.C. 5329. Alternatively, the SSOA and RTA may agree that the SSOA will conduct its audit on an on-going basis over the three-year timeframe. The program standard must establish a procedure the SSOA and RTA will follow to manage findings and recommendations arising from the triennial audit.

### **Audit Evidence**

MDPU 220 CMR Section 151.10(2) states, “The Department shall create an ongoing audit program specific to the Transportation Authority’s implementation of its [PTASP]. All sections of the [PTASP] shall be reviewed at least once every three years.... (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.”

MDPU SOG Section 5.3 Triennial Safety Program Audit, dated January 2024, details the SSOA process for conducting triennial audits including verification methods, sampling rates, audit methodology, preparation, reporting, and corrective actions. The MDPU triennial audits follow 12 topic groupings to synchronize with SMS elements:

- Grouping 1 – PTASP Updates and SMS Implementation
- Grouping 2 – Safety Management Policy
- Grouping 3 – Safety Risk Management
- Grouping 4 – Safety Assurance – Safety Performance Measures and Targets for Improvement
- Grouping 5 – Safety Assurance – Notifications and Investigations of Safety Events
- Grouping 6 – Safety Assurance – Compliance with Operations Rules/Procedures
- Grouping 7 – Safety Assurance – Compliance with Inspection and Maintenance Requirements
- Grouping 8 – Safety Assurance – Compliance with Local, State, and Federal Safety Requirements
- Grouping 9 – Safety Assurance – Management of Change
- Grouping 10 – Safety Assurance – Continuous Improvement
- Grouping 11 – Safety Promotion – Training
- Grouping 12 – Safety Promotion – Communications

The FTA Audit Team reviewed the MDPU 2023 triennial audit dated April 10, 2024, and verified that the audit process established in the SOG addressed the Part 674 requirements.

There are no findings of noncompliance for this portion of the audit.

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## 9.2 SSOA Triennial Audit Verification of PTASP Implementation

### **Basic Requirement: 49 CFR Appendix A to Part 672 Public Transportation Safety Certification Training Program**

(1) FTA/SSOA personnel and contractor support, and public transportation agency personnel with direct responsibility for safety oversight of rail fixed guideway public transportation systems:

- (a) One (1) hour course on SMS Awareness - e-learning delivery (all required participants)
- (b) Two (2) hour courses on Safety Assurance - e-learning delivery (all required participants)
- (c) Twenty (20) hours on SMS Principles for Transit (all required participants)
- (d) Sixteen (16) hours on SMS Principles for SSO Programs (FTA/SSOA/contractor support personnel only)
- (e) TSSP curriculum (minus Transit System Security (TSS) course) (all required participants - credit will be provided if participant has a Course Completion Certificate of previously taken TSSP courses)
  - (i) Rail System Safety (36 hours)
  - (ii) Effectively Managing Transit Emergencies (32 hours)
  - (iii) Rail Incident Investigation (36 hours)

### **49 CFR Part 673.11 Safety Plans General Requirements**

(a)(1) The Public Transportation Agency Safety Plan, and subsequent updates, must be signed by the Accountable Executive and approved by the agency's Board of Directors, or an Equivalent Authority.

(a)(2) The Public Transportation Agency Safety Plan must document the processes and activities related to Safety Management System (SMS) implementation, as required under subpart C of this part.

(a)(3) The Public Transportation Agency Safety Plan must include performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.

(a)(4) The Public Transportation Agency Safety Plan must address all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan. Compliance with the minimum safety performance standards authorized under 49 U.S.C. 5329(b)(2)(C) is not required until standards have been established through the public notice and comment process.

(a)(5) Each transit agency must establish a process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

(a)(6) A rail transit agency must include or incorporate by reference in its Public Transportation Agency Safety Plan an emergency preparedness and response plan or procedures that addresses, at a minimum, the assignment of employee responsibilities during an emergency; and



coordination with Federal, State, regional, and local officials with roles and responsibilities for emergency preparedness and response in the transit agency's service area.

(c) A transit agency must maintain its Public Transportation Agency Safety Plan in accordance with the recordkeeping requirements in subpart D of this part.

#### **49 CFR Part 673.21 Safety Management Systems General Requirements**

Each transit agency must establish and implement a Safety Management System under this part. A transit agency Safety Management System must be appropriately scaled to the size, scope and complexity of the transit agency and include the following elements: (a) Safety Management Policy as described in 673.23; (b) Safety Risk Management as described in 673.25; (c) Safety Assurance as described in 673.27; and (d) Safety Promotion as described in 673.29.

#### **49 CFR Part 673.31 Safety Plan Documentation**

At all times, a transit agency must maintain documents that set forth its Public Transportation Agency Safety Plan, including those related to the implementation of its Safety Management System (SMS), and results from SMS processes and activities. A transit agency must maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that the agency uses to carry out its Public Transportation Agency Safety Plan. These documents must be made available upon request by the Federal Transit Administration or other Federal entity, or a State Safety Oversight Agency having jurisdiction. A transit agency must maintain these documents for a minimum of three years after they are created.

#### **49 CFR Part 674.9(c) Transition from Previous Requirements for State Safety Oversight**

A System Safety Program Plan (SSPP) developed pursuant to 49 CFR Part 659 shall serve as the rail transit agency's safety plan until one year one year after the effective date of the Public Transportation Agency Safety Plan final rule, which will be codified in CFR Part 673 of this chapter.

#### **49 CFR Part 674.25 Role of the State Safety Oversight Agency**

(b) 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.

#### **49 CFR Part 674.29 Public Transportation Agency Safety Plan General Requirements**

(b) In determining whether a Public Transportation Agency Safety Plan is compliant with 49 CFR Part 673, an SSOA must determine, specifically, whether the Public Transportation Agency Safety Plan is approved by the RTA's board of directors or equivalent entity; sets forth a sufficiently explicit process for safety risk management, with adequate means of risk mitigation for the rail fixed guideway public transportation system; includes a process and timeline for annually reviewing and updating the safety plan; includes a comprehensive staff training program for the operations personnel directly responsible for the safety of the RTA; identifies an adequately trained safety officer who reports directly to the general manager, president, or equivalent officer of the RTA; includes adequate methods to support the execution of the Public Transportation Agency Safety Plan by all employees, agents, and contractors for the rail fixed



guideway public transportation system; and sufficiently addresses other requirements under the regulations at 49 CFR Part 673.

**Audit Evidence**

MDPU 220 CMR Section 151.10(2)(b) states, “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 [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.”

The MDPU’s recent triennial audit report dated April 10, 2024, was conducted during October 2023 in compliance with the process outlined in SOG Section 5.3. The previous MDPU triennial audit was conducted in 2020, within the three-year period as required by Part 674. The MDPU triennial audit included 12 audit groupings that addressed the MBTA PTASP elements.

As shown in Table 9.1 below, the MDPU 2023 triennial audit report resulted in a total of 22 findings, 62 recommendations, and 43 positive observations.

| <b>Table 9.1 MDPU Triennial Audit Findings and Recommendations</b>          |                 |                        |
|---|-----------------|------------------------|
| <b>Grouping</b>   | <b>Findings</b> | <b>Recommendations</b> |
| 1. PTASP Updates and SMS Implementation                                     | 2               | 5                      |
| 2. Safety Management Policy   | 0               | 1                      |
| 3. Safety Risk Management   | 1               | 4                      |
| 4. Safety Assurance—Safety Performance Measures and Targets for Improvement | 0               | 6                      |
| 5. Safety Assurance—Notifications and Investigations of Safety Events       | 5               | 9                      |
| 6. Safety Assurance—Compliance with Rules/Procedures                        | 4               | 5                      |
| 7. Safety Assurance—Compliance with Inspection and Maintenance Requirements | 3               | 6                      |
| 8. Safety Assurance—Compliance Federal, State, and Local                    | 1               | 5                      |
| 9. Safety Assurance—Management of Change                                    | 3               | 3                      |
| 10. Safety Assurance—Continuous Improvement                                 | 0               | 4                      |
| 11. Safety Promotion—Training   | 3               | 8                      |
| 12. Safety Promotion—Communication  | 0               | 6                      |

There are no findings of noncompliance for this portion of the audit.



## 10. Corrective Actions

For this portion of the audit, the FTA evaluated MDPU CAP documents as specified in:

- Part 674.27 – (a)(8) State Safety Oversight Program Standards
- Part 674.37 – (a) Corrective Action Plans

### 10.1 Procedure to Review, Approve, and Verify Corrective Action Plans

#### Basic Requirements:

##### **49 CFR Part 674.27(a)(8) State Safety Oversight Program Standards – CAPS**

The program standard must explain the process and criteria by which the SSOA may order an RTA to develop and carry out a Corrective Action Plan (CAP) and a procedure for the SSOA to review and approve a CAP. Also, the program standard must explain the SSOA’s policy and practice for tracking and verifying an RTA’s compliance with the CAP and managing any conflicts between the SSOA and RTA relating either to the development or execution of the CAP or the findings of an investigation.

**49 CFR Part 674.37(a)** 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. A CAP must describe, specifically, the actions the RTA will take to minimize, control, correct, or eliminate the risks and hazards 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.

#### **Audit Evidence**

MDPU 220 CMR Section 151.07 (1) states, “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.”

MDPU 220 CMR Section 151.07 (7) states, “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.”

MDPU 220 CMR Section 151.07 (9) further states, “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).”

The FTA Audit Team reviewed a sample of open CAPs as shown in Table 10.1 below.

| <b>Table 10.1 – Incident CAPs reviewed as Part of Audit</b> |                |                       |   |
|---|----------------|-----------------------|---|
| <b>CAP Date</b>   | <b>CAP No.</b> | <b>Event</b>          | <b>CAP Description</b>  |
| 09/24/2019  | C20-003        | Hazard                | MBTA must remove new Orange Line vehicles from revenue service until locking mechanism has been corrected or updated.   |
| 01/02/2020  | C20-001        | Hazard                | MBTA must complete repair and retesting of dry fire standpipe systems to achieve 100% compliance and bring all systems into a state of good repair.   |
| 09/14/2020  | C20-010        | Event                 | MBTA must perform a feasibility/cost analysis of encapsulation versus removal of wooden troughs in the Green Line central tunnel.   |
| 09/16/2022  | C22-022        | Internal Safety Audit | MBTA must update the internal procedures to address hazards identified during the 2022 Internal Safety Audit.   |
| 01/30/2023  | C22-019        | Event                 | MBTA maintenance of way department must develop a documented SOP for performing maintenance on rail parallel to the contact rail which will require power off prior to any work.  |
| 09/28/2023  | C23-030        | Event                 | MBTA must issue a safety flash, perform system-wide radio tests, and conduct a reenactment of the near miss on the Red Line near the North Quincy Crossover, occurring on August 10, 2023.  |
| 02/02/2024  | C23-029        | Event                 | MBTA must conduct a hydrostatic and flow test for all dry standpipe systems across the transit system, provide the MDPU with a schedule for testing, and provide a monthly status update.   |
| 04/16/2024  | C23-033        | Event                 | MBTA must suspend Hi-Rail vehicles from entering the Right of Way except; in the event of response to an emergency, in a diversion area.  |
| 04/18/2024  | C24-005        | Event                 | MBTA must analyze safety-related events that have involved hand-thrown switches. Safety will review these events to determine if there are any commonalities. If commonalities are discovered additional corrective action plans will be developed. |



| Table 10.1 – Incident CAPs reviewed as Part of Audit |         |       |   |
|--|---------|-------|---|
| 07/02/2024   | C23-023 | Event | In order to mitigate the hazard of a train-on-train collision, MBTA must procure, qualify and install a non-vital radio frequency based red signal violation protection system that will be overlaid onto the existing Green Line system. |

During on-site audit interviews, the FTA Audit Team discussed the MDPU CAP approval and closeout processes, including timeframes and CAPs identified from risk management.

There are no findings of noncompliance for this portion of the audit.

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## 10.2 Establish Content Requirements for Corrective Action Plans

### Basic Requirement: 49 CFR Part 674.37(a) Corrective Action Plans

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. A CAP must describe, specifically, the actions the RTA will take to minimize, control, correct, or eliminate the risks and hazards 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.

### Audit Evidence

MDPU 220 CMR Section 151.07 (2) states, “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.”

MDPU SOG Section 5.5.III.A also states, “Any other critical information, such as interim steps taken before longer-term mitigations are implemented.”

The FTA Audit Team reviewed the current CAP matrix dated June 3, 2024, which included 45 open CAPs and 28 closed CAPs. The CAP matrix included the Part 674 and Program Standard requirements.

There are no findings of noncompliance for this portion of the audit.

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### 10.3 Process for Evaluating NTSB Findings

#### **Basic Requirement: 49 CFR Part 674.37(b) Corrective Action Plans**

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, the SSOA must evaluate whether the findings or recommendations by the NTSB require a CAP by the RTA, and if so, the SSOA must order the RTA to develop and carry out a CAP.

#### **Audit Evidence**

MDPU 220 CMR Section 151.07 (8) states, "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."

During the last three years, MDPU coordinated with NTSB for investigation of two MBTA events:

- July 30, 2021, MBTA Green Line collision near the intersection of Commonwealth Avenue and Harry Agganis Street in Brookline, Massachusetts, and
- April 10, 2022, MBTA Red Line passenger fatality event.

For the 2021 MBTA Green Line collision, NTSB released its final investigation report, RIR-22-15, on December 16, 2022, which noted that "MBTA is deploying a train protection system designed to prevent trolley-to-trolley collisions by enforcing speed policies and detecting collision threats. MBTA plans to have the system completed by June 2025."

For the 2022 MBTA Red Line fatality event, NTSB released its final investigation report, RIR-23-07, on June 12, 2023, which noted that "the Federal Transit Administration (FTA) notified MBTA that it would immediately assume an increased safety oversight role of the MBTA system. The FTA further notified MBTA that FTA Transit Safety Oversight would conduct an SMI of transit operations and maintenance programs and would assess the effectiveness and role of the Massachusetts Department of Public Utilities (DPU)." This SMI is ongoing at the time of the audit.

The FTA Audit Team conducted document reviews of both investigations, discussed the NTSB recommendations and implemented CAPs and verified that MDPU was following Part 674 and Program Standard requirements.

There are no findings of noncompliance for this portion of the audit.

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## 11. Annual Reports

For this portion of the audit, the FTA evaluated MDPU annual reports submissions as specified in:





Part 674.13 – (a)(7) Designation of Oversight Agency

Part 674.27 – (b) State Safety Oversight Program Standards

Part 674.39 – State Safety Oversight Agency Annual Reporting to FTA

## 11.1 Annual Safety Status Report Requirements

### **Basic Requirement: 49 CFR Part 674.13(a)(7) Designation of Oversight Agency**

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.

### **Audit Evidence**

MDPU 220 CMR Section 151.01 (12) states, “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.”

The FTA Audit Team verified that annual report submissions were provided in State Safety Oversight Reporting (SSOR) and identified that MDPU issued annual safety status reports, as required, for the past three years.

There are no findings of noncompliance for this portion of the audit.

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## 11.2 FTA Annual Report Requirements

### **Basic Requirement: 49 CFR Part 674.39(a) State Safety Oversight Agency Annual Reporting to FTA**

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 CFR part 674.27, with an indication of any changes to the SSO program standard during the preceding twelve 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 twelve months, describes the causal factors of accidents 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) A summary of the three-year audits completed during the preceding twelve months, and the RTA’s progress in carrying out CAPs arising from three-year audits conducted in accordance with CFR Part 674.31;



- (5) Evidence that the SSOA has reviewed and approved any changes to the Public Transportation Agency Safety Plans during the preceding twelve months; and
- (6) A certification that the SSOA is in compliance with the requirements of this part.

### **Audit Evidence**

MDPU 220 CMR Section 151.10 (3) states, “(a) 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;
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 CFR 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 CFR 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.”

The FTA Audit Team verified through the SSOR tool that MDPU submitted its last three annual reports to FTA within the required time frames.

There are no findings of noncompliance for this portion of the audit.

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## **12. Follow Up Actions**

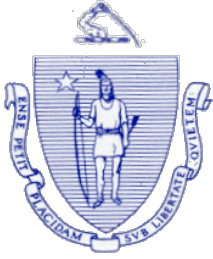
Follow up actions are not required.

## **13. Summary of Findings**

The FTA did not identify findings of noncompliance for the MDPU SSO Audit.



## **14. Appendix A – MDPU Comments to the Draft Audit Report**



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**STACI RUBIN**  
COMMISSIONER

October 21, 2024

VIA ELECTRONIC MAIL

Melonie Barrington, EdD.  
Director  
Office of Safety Oversight and Compliance  
Federal Transit Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: State Safety Oversight Program Audit Report of the Massachusetts Department of  
Public Utilities – July 16-23, 2024

Dear Dr. Barrington:

Thank you for sending the Federal Transit Administration's ("FTA") draft State Safety Oversight Program Audit Report ("Report") for the Massachusetts Department of Public Utilities ("DPU"). The results of this audit reflect the culmination of a tremendous amount of work on the part of the DPU's Rail Transit Safety Division to increase its oversight in areas outlined in FTA's 2022 Safety Management Inspection and bring the Division's oversight program into compliance.

DPU does not have any comments on the draft Report. We appreciate the strong working partnership DPU has with FTA and look forward to continuing that partnership going forward.

Sincerely,



James M. Van Nostrand  
Chair, Massachusetts Department of Public  
Utilities

cc: S. Rubin, Commissioner, DPU  
R. Hanson, Director, Rail Transit Safety Division, DPU  
J. Powell, SSO Program Manager, FTA  
P. Butler, Regional Administrator, FTA Region 1  
M. Muhlanger, Deputy Regional Administrator, FTA Region 1  
M. Keamy, Director Program Management, FTA Region 1  
F. Alomia, Regional Safety Officer, FTA