



The Massachusetts Bay Transportation Authority

FTA-VSC-22-002

Corrective Action Plan (CAP)

BACKGROUND

Overview: The FTA issued Special Directive 22-5 that required the Massachusetts Bay Transportation Authority (MBTA) to address ongoing safety concerns at MBTA and interim findings uncovered during FTA's Safety Management Inspection (SMI) that was initiated in April 2022.

This Special Directive mandated that MBTA take three (3) required actions in three distinct categories related to movement of equipment within yard limits with known or suspected defective brakes or propulsion equipment.

PURPOSE

This Corrective Action Plan has been developed to address **Special Directive 22-5 Category 1: Vehicle Securement Policies, Procedures and Compliance** and its Required Action **FTA-Special Directive FTA-VSC-22-002**

FTA Finding

- MBTA does not adequately train personnel on the policies and procedures to safely move and secure rail cars with known or suspected defective brakes or propulsion equipment.

FTA Required Action

- **FTA-VSC-22-002:** MBTA must develop training and train personnel on the policies and procedures to safely move rail vehicles with known or suspected defective brakes or propulsion equipment. Personnel is inclusive of all employees, contractors, oversight, or other individuals who access the rail system and facilities.

ANALYSIS AND RECOMMENDATIONS

Analysis

- The MBTA created a Safety Management Working Group (SMWG) which includes Vehicle Maintenance, Transportation, Operations Control Center, Training and Safety departments. The SMWG conducted a deep dive analysis on the root cause of why personnel failed to properly prepare trains with defective brakes or propulsion systems to move in yards and maintenance facilities.

Recommendations

- Training school must review new rules, special orders, procedures to develop curriculum for each classification
- The MBTA will analyze training processes, procedures, and training school's capacity and based on that analysis, develop a robust training plan.
- Once training curriculum is developed, training school will create a training timeline that ensures that all relevant staff receive proper training
- MBTA will align hiring plans with additional training as necessary



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ACTION PLAN

Description: The MBTA will develop and implement a special order for yard movements of rail vehicles with known or suspected defective brakes or propulsion. The MBTA will develop special orders for Heavy Rail and Light Rail. We will train all affected personnel which includes Training Staff, Operations Control Center staff, Yard Masters, Yard Motor Persons, Vehicle Maintenance Forepersons and Supervisors.

PLAN STRUCTURE

| # | Actionable Items | Description | Responsible Party ¹ | Est Start ² | Est End ³ |
|----|---|--|---|------------------------|--|
| 1 | Update Procedures: Develop Heavy Rail Special Order which provides clear direction on procedure to move equipment within yard limits and into/out of the car houses and provides clear direction for moving equipment with brake or propulsion issues | Will provide clear direction on procedure to move equipment within yard limits, into/out of the car houses and provides clear direction for moving equipment with brake or propulsion issues | Transportation Dept (Andrea Gordon) | 6/22/22 | 8/1/22 |
| 1a | Update Procedures: Develop and implement into procedures, training, and compliance the checklists for coupling/uncoupling and vehicle safety inspection | Incorporate a checklist for coupling/uncoupling and vehicle safety inspection, as required in FTA's immediate action letter into procedures, training and compliance requirements associated with actions for these CAP's. | Transportation Dept (Andrea Gordon) Vehicle Maintenance (Stephens Hicks) Transportation Training & OCC (Aisheea Isidor) | | Issued on 8/8/22 Training & compliance 10/15/22 |
| 1b | Update Procedures: Develop and implement into procedures, training, and compliance the checklists for car house circle checks | Include circle checks as required in FTA's immediate action letter into procedures, training and compliance requirements associated with actions for these CAP's. | Transportation Dept (Andrea Gordon) Vehicle Maintenance (Stephens Hicks) Transportation Training & OCC (Aisheea Isidor) | | Issue on 9/2/22 Training & compliance 11/15/22 |
| 1c | Update Procedures: Develop and implement into procedures, training, and compliance the checklists for pre-trip inspections | Incorporate a checklist for pre-trip inspections, as required in FTA's immediate action letter into procedures, training and compliance requirements associated with actions for these CAP's. | Transportation Dept (Andrea Gordon) Vehicle Maintenance (Stephens Hicks) Transportation Training & OCC (Aisheea Isidor) | | Issued on 8/8/22 Training & compliance 10/15/22 |
| 2 | Update Procedures: Develop Light Rail Special Order which provides clear direction on procedure to move equipment within yard limits and into/out of the car and provides clear direction for moving | Provide clear direction on procedure to move equipment within yard limits, into/out of the car houses and provides clear direction for moving equipment with brake or propulsion issues | Transportation Dept (Andrea Gordon) | 7/22/22 | 9/1/22 |

¹ In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

² Est Start – Estimated Start Date

³ Est End Estimated Completion Date



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| | equipment with brake or propulsion issues | | | | |
| 2a | Update Procedures: Develop and implement into procedures, training, and compliance the checklists for coupling/uncoupling and vehicle safety inspection | Incorporate a checklist for coupling/uncoupling and vehicle safety inspection, as required in FTA's immediate action letter into procedures, training and compliance requirements associated with actions for these CAP's. | Transportation Dept (Andrea Gordon) Vehicle Maintenance (Stephens Hicks) Transportation Training & OCC (Aisheea Isidor) | | Issued 8/8/22 Training & compliance 10/15/22 |
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| 3 | Develop Heavy Rail syllabus & hands-on training | Special order for vehicle movement within yard limits and equipment movements into and out of the carhouse | Transportation Training & OCC (Aisheea Isidor) | 8/1/22 | 9/15/22 |
| 4 | Develop Light Rail syllabus & hands-on training | Special order for vehicle movement within yard limits and equipment movements into and out of the carhouse | Transportation Training & OCC (Aisheea Isidor) | 9/1/22 | 10/14/22 |
| 5 | Develop Heavy Rail vehicle maintenance syllabus & hands-on training | Special order for vehicle movement within yard limits and equipment movements into and out of the carhouse | Vehicle Maintenance (Stephens Hicks) | 8/1/22 | 9/15/22 |
| 6 | Develop Light Rail vehicle maintenance syllabus & hands-on training | Special order for vehicle movement within yard limits and equipment movements into and out of the carhouse | Vehicle Maintenance (Stephens Hicks) | 9/1/22 | 10/14/22 |
| 7 | Develop training schedule for Transportation and OCC | Coordinate with Light / Heavy Rail Transportation & OCC to develop a training timeline / schedule that ensures adequate staffing for day-to-day operations while completing this necessary training | Transportation Training & OCC (Aisheea Isidor) Transportation Dept (Andrea Gordon) | 9/1/22 | 10/14/22 |
| 8 | Develop training schedule for Vehicle Maintenance | Develop a training timeline / schedule that ensures adequate staffing for day-to-day operations while completing this necessary training | Vehicle Maintenance (Stephens Hicks) | 9/1/22 | 10/14/22 |
| 9 | Train Heavy Rail, Vehicle Maintenance, & OCC personnel | Train ~243 staff of multiple classifications | Transportation Training & OCC (Aisheea Isidor) Vehicle Maintenance (Stephens Hicks) | 9/19/22 | EST 1/27/2023 |
| 10 | Train Light Rail, Vehicle Maintenance, & OCC personnel | Train ~470 staff of multiple classifications | Transportation Training & OCC (Aisheea Isidor) | 10/17/22 | EST 2/24/2023 |



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| | | | Vehicle Maintenance (Stephens Hicks) | | |
| 11 | Training completion tracking | Develop process to track training status of all relevant staff. | Transportation Training & OCC (Aisheea Isidor) Vehicle Maintenance (Stephens Hicks) | 9/1/22 | 10/14/22 |
| 12 | Define recertification process and cadence | Create process to ensure all relevant staff are recertified in a timely manner | Transportation Training & OCC (Aisheea Isidor) Vehicle Maintenance (Stephens Hicks) | 9/1/22 | 10/14/22 |
| 13 | Embed process into new hire training | Update new hire training steps for each classification to ensure they are trained on these new procedures as part of their onboarding | Transportation Training & OCC (Aisheea Isidor) Vehicle Maintenance (Stephens Hicks) | 9/1/22 | 10/14/22 |

COMPLETION DOCUMENTATION

Performance Metrics

Expected Completion:

- Heavy Rail EST completion 1/27/2023
- Light Rail EST completion 2/24/2023

Subway Accident Reduction Committee (SARC) will review effectiveness of training on reducing rate of incidents.

- Committee will set a baseline yard incident rate over the last 2 years and measure effectiveness of new training against it

On-time completion of initial certification training

On-time percentage for recertification

Verification

Overview:

- Rewrite existing SRCP audit for movement of equipment into/out of the car house; have committee accept changes and implement the new procedure when training is complete, and the Special Order is released for the location
- Write new SRCP audit for movement of equipment within the yard limits; have committee accept changes and implement the new procedure when training is complete, and the Special Order is released for the location
- Vehicle Maintenance will develop an SRCP to audit movement into/out of the car house and audit compliance following the Blue Flag/Blue Signal procedures when they are implemented

BUDGET/COST ESTIMATE

Overview:

- Vehicle Maintenance must train 167 staff across Rail Maintenance. This includes Cabot, Wellington, Orient Heights, Riverside, Reservoir, Mattapan, Lake Street and the Inner Beltway facility.
- Heavy Rail Transportation must train 160 staff consisting of Trainers, OCC Staff, All Yard Staff and Supervisors.
- Light Rail Transportation must train 386 staff consisting of Trainers, OCC Staff, All Yard Staff and Supervisors.

| Segment Code | Cost Estimate |
|--|---------------|
| Vehicle Maintenance costs for training 167 Vehicle Maintenance Staff | \$103,641 |
| Heavy Rail Transportation must train 160 staff consisting of Trainers, OCC Staff, All Yard Staff and Supervisors | \$85, 830 |
| Light Rail Transportation must train 386 staff consisting of Trainers, OCC Staff, All Yard Staff and Supervisors | \$209,368 |



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| OCC Instructor costs to train 142 classes | \$157,328 |
| Total | \$556,167 |



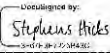
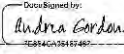
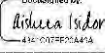
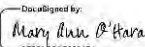
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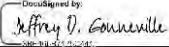
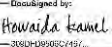
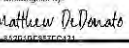
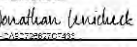
Corrective Action Plan (CAP)

CORRECTIVE ACTION PLAN COMMITMENT

Responsible Parties

| Department ⁴ | Name | Contact Email | Signature |
|-------------------------------|-----------------|---------------|--|
| Vehicle Maintenance | Stephens Hicks | [REDACTED] |  |
| Rail Transportation | Andrea Gordon | [REDACTED] |  |
| Transportation Training & OCC | Aisheea Isidor | [REDACTED] |  |
| Chief Financial Officer | Mary Ann O'Hara | [REDACTED] |  |

Executive Leadership of Responsibilities Parties

| | |
|--|-----------|
|  | 8/12/2022 |
| Jeffrey D. Gonville MBTA Deputy General Manager | Date |
|  | 8/12/2022 |
| Howaida Kamel MBTA Chief of Staff – CAO's Office On behalf of David Panagore MBTA Chief Administration Officer | Date |
|  | 8/12/2022 |
| Matthew DeDonato MBTA Deputy Director of Safety Oversight and Planning On behalf of Ronald Ester MBTA Chief Safety Officer | Date |
|  | 8/12/2022 |
| Jonathan Lenicheck MBTA Chief of Staff – GM's Office On behalf of Steve Poftak MBTA General Manager | Date |

⁴ Offices designated as supporting roles provide subject matter expertise to responsible parties during action development and are not directly responsible for delivery of actionable items listed above.