



U.S. Department
of Transportation

**Federal Transit
Administration**

Headquarters

1200 New Jersey Avenue, SE
Washington, DC 20590

SENT VIA EMAIL

August 3, 2022

Mr. Steve Poftak
General Manager
Massachusetts Bay Transportation Authority
10 Park Plaza
Boston, MA 02116

Subject: Resubmission Required for Special Directive 22-5 Corrective Action Plans

Dear Mr. Poftak,

Thank you and your team for submitting corrective action plans (CAPs) to address the following required actions from Federal Transit Administration's (FTA) Special Directive 22-5 related to Vehicle Securement for Disabled Trains:

- FTA-VSC-22-001: The Massachusetts Bay Transportation Authority (MBTA) must develop and implement specific written procedures for yard movements of rail vehicles with known or suspected defective brakes or propulsion equipment.
- FTA-VSC-22-002: The 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.
- FTA-VSC-22-003: The MBTA must create and implement a compliance program to ensure personnel consistently and accurately use policies and procedures for yard movements of 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.

FTA received the MBTA's three CAP submittals on June 30, 2022. In addition, on Friday, July 15, 2022, as requested, the MBTA uploaded newly developed procedures referenced in these CAPs, including the following:

- Transportation memo on uncoupling cars,

- Special order on uncoupling cars,
- Pin hitch procedure for Red Line trains, and
- Reminder on working with cars with brake cut outs.

The MBTA also uploaded sign-off sheets documenting frontline engagement regarding these new procedures, including meetings that Vehicle Maintenance senior staff conducted with car house forepersons and that Rail Transportation senior staff conducted with yard transportation personnel. Finally, MBTA provided FTA with a draft of its new *Operations Special Order # 22-138: Rule Change: Rule HR95 - Procedure for all Heavy Rail Vehicle Yard Moves and Moving Heavy Rail Vehicles into/out of Car Houses*.

On Wednesday, July 20, 2022, FTA observed the MBTA's training on the new pin hitching procedure for Red Line vehicles. The FTA also observed an unsuccessful demonstration of this procedure for securing disabled trains at Cabot Yard. On Monday, July 25, the MBTA experienced another unintended train movement on the mainline at Braintree Station. On Thursday, July 28, the FTA ordered additional action, including a safety standdown to review recent incidents and MBTA's policies and procedures to prevent unintended train movement. The FTA also required the development and implementation of checklists for coupling and uncoupling rail transit vehicles and for completing safety inspections and circle checks of rail transit vehicles prior to movement.

Given that the MBTA's CAPs for Special Directive 22-5 were developed and submitted prior to the failed pin hitch procedure demonstration and FTA's immediate action letter, **FTA is requesting re-submittal of select CAP items. Specifically, and as noted in the attached CAP Evaluation Table, the CAP items must be revised to address the following:**

- Revision to pin hitch procedure and related training and compliance program to provide direction to MBTA personnel regarding what should be done if the pins cannot be inserted into the coupler, or the procedure cannot be implemented for some other reason.
- MBTA's plan for designing and procuring new pins to support the pin hitch procedure.
- Incremental schedule showing completion dates for pin hitching procedures and pin procurement for the Red, Orange, Blue, and Green Line fleets through December 1, 2022.
- Incorporation of checklists developed and implemented by Vehicle Maintenance and Rail Transportation for coupling/uncoupling, vehicle safety inspections, and circle checks as required in FTA's immediate action letter into procedures, training and compliance requirements associated with actions for these CAPs.
- Any fact findings or lessons learned from the unintended train movement on July 25, 2022 and the safety standdowns directed by FTA that may be applicable to the procedures, training or compliance program addressed in these CAPs.

Please re-submit these updated CAPs by no later than Friday, August 12, 2022.

Once FTA approves these CAPs, please note that each CAP will remain open until the FTA receives required documentation and verifies the effectiveness of each CAP in addressing the deficiency of each finding prior to closure of each MBTA proposed action item.

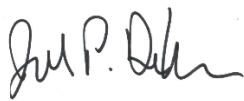
The FTA will coordinate with the MBTA on the dates and times for any necessary field verifications

of the required actions. All findings and action items must be validated by FTA prior to this Special Directive's closure.

Conclusion

We appreciate your efforts to enhance MBTA's safety performance, and we look forward to working with you and your team as the MBTA addresses these findings and required actions. Please contact our SMI CAP Manager, Mr. Cyrell McLemore, by phone at (312) 886-1625 or by email at Cyrell.McLemore@dot.gov with any questions.

Sincerely,



Joe DeLorenzo
Associate Administrator and
Chief Safety Officer
Office of Transit Safety and Oversight

Enclosure: Special Directive 22-5 Corrective Action Plan Evaluation Table

cc: Peter Butler, Regional Administrator, FTA Region 1
Jeffrey Gonneville, Deputy General Manager, MBTA
Ron Ester, Chief Safety Officer, MBTA
Steve Hicks, Chief Mechanical Officer
Dave Carney, Chief of Transit Services, MBTA
Andrea Gordon, Assistant General Manager, Rail Operations, MBTA
Elizabeth Cellucci, Director, Transportation Oversight Division, Massachusetts Department of Public Utilities



Corrective Action Plan (CAP) Evaluation Matrix
Special Directive 22-5: Vehicle Securement of Disabled Trains

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Dates	FTA Comments	MBTA Response (if needed)
FTA-VSC-22-001	<p><u>Finding:</u> MBTA does not have or use specific procedures for yard movements of rail vehicles with known or suspected defective brakes or propulsion equipment</p> <p><u>Required Action:</u> MBTA must develop and implement specific written procedures for yard movements of rail vehicles with known or suspected defective brakes or propulsion equipment</p>	1. Investigations: Transportation held fact finding on yard incidents from 5/28, 5/30, 5/31, 6/1 and 6/8	Completed on 6/10/22	<p>Action Required</p> <ol style="list-style-type: none"> 1. Update with any fact finding and lessons learned from the July 25, 2022 unintended train movement and the safety standdown. 2. Provide FTA with investigation reports and results of fact finding and lessons learned from July 25, 2022 event and from safety standdown. 3. Revise dates and deliverables as necessary. 	
		2. Frontline engagement: Vehicle Maintenance senior staff spoke with all forepersons	Completed on 6/2-6/5/22	Action Item Approved	
		3. Frontline engagement: Transportation senior staff spoke with all yard personnel	Completed on 6/9-6/21/22	Action Item Approved	
		4. Updated procedures: Transportation memo issued regarding uncoupling vehicles	Completed on 6/5/22	<p>Action Required</p> <ol style="list-style-type: none"> 1. Determine and submit documentation to FTA if memo needs to be updated or re-issued based on revisions to procedure in Action Item #5 below and results of safety standdown. 2. Revise dates and deliverables as necessary. 	
		5. Updated procedures: Issued uncoupling special order	Completed on 6/22/22	<p>Action Required</p> <ol style="list-style-type: none"> 1. Revise procedure to include checklist required in FTA's July 28, 2022 immediate action letter. 2. Revise procedure to include requirement that any MBTA 	



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				<p>employee coupling or uncoupling a rail transit vehicle must complete the checklist.</p> <ol style="list-style-type: none"> 3. Revise procedure to include directions for how employees should maintain and submit completed checklists and how supervisors should review them. 4. Provide verification that updated procedures went through MBTA's change management process. 5. Revise dates and deliverables as necessary. 	
		<ol style="list-style-type: none"> 6. Updated procedure: Developed procedure for pin hitching for all service rail vehicle types 	12/1/22	<p>Action Required</p> <ol style="list-style-type: none"> 1. Provide an incremental schedule showing completion dates for the pin hitching procedures for the Red, Orange, Blue, and Green Line fleets through December 1, 2022. 2. Amend the procedure for each rail transit line fleet to direct the actions to take if the pin is unable to be inserted into the coupler or the procedure is unable to be implemented. 3. Provide FTA with its plan for designing and procuring new pins for the Red Line and perhaps other rail transit fleets to support this procedure. 4. Provide FTA with documentation on the number of successful pin hitch procedure tests conducted with new pins and schedule another demonstration for FTA. 	



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				<p>5. Ensure training is updated to reflect changes in procedure for pin hitch.</p> <p>6. Revise dates and deliverables as necessary.</p>	
		<p>7. Updated Procedures: Issued rerail list of required action items for Vehicle Maintenance</p>	<p>Completed 6/15/22</p>	<p>Action Required</p> <p>1. Provide verification that updated procedures went through MBTA's change management process.</p>	
		<p>8. Updated procedure: Carhouse moves</p>	<p>Completed 6/22/22</p>	<p>Action Required</p> <p>1. Provide verification that updated procedures went through MBTA's change management process.</p>	
		<p>9. 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 utilizing a version of blue flag/blue signal procedures and provides clear direction for moving equipment with brake or propulsion issues</p>	<p>8/1/22</p>	<p>Action Required</p> <p>1. Revise draft procedure to include checklists for coupling / uncoupling, safety inspection, and circle check required in FTA's July 28, 2022 immediate action letter.</p> <p>2. Revise draft procedure to include requirement that MBTA employees must complete the checklist.</p> <p>3. Revise draft procedure to include directions for how employees should maintain and submit completed checklists and how supervisors should review them.</p> <p>4. Provide verification that updated procedures went through MBTA's change management process.</p> <p>5. Revise dates and deliverables as necessary.</p> <p>Note that this is the same as FTA-VSC-22-002 #1 and FTA-VSC-22-003 #1.</p>	



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		10. 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 houses utilizing a version of blue flag/blue signal procedures and provides clear direction for moving equipment with brake or propulsion issues	9/1/22	<ol style="list-style-type: none"> 1. Ensure procedure includes checklists for coupling / uncoupling, safety inspection, and circle check required in FTA’s July 28, 2022 immediate action letter. 2. Ensure procedure includes requirement that MBTA employees must complete the checklist. 3. Ensure procedure includes directions for how employees should maintain and submit completed checklists and how supervisors should review them. 4. Provide verification that updated procedures went through MBTA's change management process. 5. Revise dates and deliverables as necessary. <p>Note that this is the same as FTA-VSC-22-002 #2 and FTA-VSC-22-003 #2.</p>	
		11. Updated Procedures: Vehicle Maintenance will include a coupler wiring modification	10/24/22	Action Item Approved	
		12. Staffing/Personnel: Build plan for increasing capacity for forepersons and yard staff to support additional workload	9/1/22	Action Item Approved	
		13. Staffing/Personnel: Hire all relevant positions	12/30/23	Action Item Approved	



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		14. Communication: Transportation memo issued regarding brake cutout	Completed 6/8/22	Action Item Approved	
		15. Communication: All forepersons received and signed for receipt of two safety directives from CSO	Completed 6/21-6/23/22	Action Item Approved	
		16. Communication: All yard staff received and signed for receipt of two safety directives from CSO	Completed 6/21-6/23/22	Action Item Approved	
		17. Communications: Heavy Rail Transportation will update rule book	4/1/23	Action Item Approved	
		18. Communications: Light Rail Transportation will update rule book	4/1/23	Action Item Approved	
FTA-VSC-22-002	<p><u>Finding:</u> 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.</p> <p><u>Required Action:</u> MBTA must develop training and train personnel on the policies and procedures to safely move rail vehicles with known or suspected defective brakes or</p>	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 utilizing a version of blue flag/blue signal procedures and provides clear direction for moving equipment with brake or propulsion issues	8/1/22	<p>Action Required</p> <p>See comments on FTA-VCS-22-001, Action Item #9 above.</p> <p>Note that this is the same as FTA-VSC-22-001 #9 and FTA-VSC-22-003 #1.</p>	



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<p>propulsion equipment. Personnel is inclusive of all employees, contractors, oversight, or other individuals who access the rail system and facilities.</p>	<p>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 houses utilizing a version of blue flag/blue signal procedures and provides clear direction for moving equipment with brake or propulsion issues</p>	<p>9/1/22</p>	<p>Action Required</p> <p>See comments on FTA-VCS-22-001, Action Item #10 above.</p> <p>Note that this is the same as FTA-VSC-22-001 #10 and FTA-VSC-22-003 #2.</p>	
	<p>3. Develop Heavy Rail syllabus & hands-on training</p>	<p>9/15/22</p>	<p>Action Item Approved</p>	
	<p>4. Develop Light Rail syllabus & hands-on training</p>	<p>10/14/22</p>	<p>Action Item Approved</p>	
	<p>5. Develop Heavy Rail vehicle maintenance syllabus & hands-on training</p>	<p>9/15/22</p>	<p>Action Item Approved</p>	
	<p>6. Develop Light Rail vehicle maintenance syllabus & hands-on training</p>	<p>10/14/22</p>	<p>Action Item Approved</p>	
	<p>7. Develop training schedule for</p>	<p>10/14/22</p>	<p>Action Item Approved</p>	



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		Transportation and OCC			
		8. Develop training schedule for Vehicle Maintenance	10/14/22	Action Item Approved	
		9. Train Heavy Rail, Vehicle Maintenance, & OCC personnel	1/27/23	Action Item Approved	
		10. Train Light Rail, Vehicle Maintenance, & OCC personnel	2/24/23	Action Item Approved	
		11. Training completion tracking	10/14/22	Action Item Approved	
		12. Define recertification process and cadence	10/14/22	Action Item Approved	
		13. Embed process into new hire training	10/14/22	Action Item Approved	
FTA-VSC-22-003	<p><u>Finding:</u> MBTA does not verify that personnel consistently use policies and procedures for movement of trains that do not have working brakes and working propulsion equipment.</p> <p><u>Required Action:</u> MBTA must create and implement a compliance program to</p>	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 utilizing a version of blue flag/blue signal procedures and provides clear direction for moving equipment	8/1/22	<p>Action Required</p> <p>See comments on FTA-VCS-22-001, Action Item #9 above.</p> <p>Note that this is the same as FTA-VSC-22-001 #9 and FTA-VSC-22-002 #1.</p>	



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<p>ensure personnel consistently and accurately use policies and procedures for yard movements of 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.</p>	<p>with brake or propulsion issues</p>			
	<p>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 houses utilizing a version of blue flag/blue signal procedures and provides clear direction for moving equipment with brake or propulsion issues</p>	<p>9/1/22</p>	<p>Action Required</p> <p>See comments on FTA-VCS-22-001, Action Item #10 above.</p> <p>Note that this is the same as FTA-VSC-22-001 #10 and FTA-VSC-22-002 #1.</p>	
	<p>3. Rewrite existing SRCP audit</p>	<p>10/14/22</p>	<p>Action Item Approved</p>	
	<p>4. Write new SRCP audit for movement of equipment within yard limits</p>	<p>10/14/22</p>	<p>Action Item Approved</p>	
	<p>5. Vehicle Maintenance will develop an SRCP to audit equipment movement</p>	<p>10/14/22</p>	<p>Action Item Approved</p>	