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WMSC Inspection Report 20250205

ISSUED 2/6/2025

Inspection Details

Title: Automatic Train Operation (ATO) Training Verification Inspection

Location: Carmen Turner Training Facility (CTF) room 146

Date of Inspection: 2/5/2025

Time of Inspection: 10:00am to 12:00pm

Unannounced

Risk-Based (Safety Certification Oversight, Station Overruns in Automatic Train Operation)

Automatic Train Control & Signals

Overview

On Wednesday February 5, 2025, the Washington Metrorail Safety Commission (WMSC) conducted an unannounced risk-based inspection at the Carmen E. Turner Maintenance and Training Facility (CTF) during an Automatic Train Operation class for rail vehicle operators. The goal of the inspection was to verify that mitigations Metrorail implemented on December 31, 2024, were in place. The mitigations are aimed at addressing an increase in station overruns while in automatic train operation (ATO).

On December 9, 2024, the WMSC issued a letter of concurrence for Automatic Train Operation (ATO) & Return to Design Speed on the Red Line. This permitted Metrorail to operate passenger trains in automatic train operation at higher speeds on the Red Line only. Metrorail has in fact been doing so for at least some periods of most days since receiving WMSC concurrence.

Since December 9, 2024, Metrorail has reported several conditions that pose safety risks:

- Station overruns (rail vehicle stops that occur beyond the station platform's 8-car marker required stopping point);
- Station short stops (rail vehicle stops that are short of the 8-car marker required stopping point); and
- Rail vehicles entering stations at speeds higher than 42 mph (the maximum permitted entry speed for a rail vehicle servicing a station).

The WMSC observed the station short stops firsthand during an inspection on January 13, 2025, while at Union Station (see WMSC Inspection Report 2025-01-13B).

WASHINGTON METRORAIL SAFETY COMMISSION



The above safety risks were discussed at the January 28, 2025, Public Meeting of the Commissioners (time stamp starting at 22:30.) During that meeting, the WMSC presented that 133 station overruns occurred on the Red Line since the December activation of ATO, 119 of those station overruns occurred while trains were in automatic mode. Metrorail and the WMSC continue to monitor the data related to each of these safety risks.

Upon investigation of the issue, Metrorail determined two potential causal factors for the station overruns: the first is the use of the ATO Stop button and the second is the Cancel Station Stop button. Based on these two causal factors, Metrorail formalized mitigations in Rail Operations Personnel Directive RTRA-703-27-00 and updated related instructional slides for the Automatic Train Operation class. Those mitigations include: advising personnel not to depress the Station Stop Cancel button and to only press the ATO Stop button if PSS (programmed station stop) is lost or if train speed exceeds 20mph at the 150ft or "20" marker.

The WMSC conducted this inspection at CTF in Rail Vehicle Simulator classroom 146 during an Automatic Train Operation class for rail vehicle operators. The class included eight students and two instructors. The inspection included speaking with instructors and students as well as visual verification of ATO class documents to verify incorporation of Personnel Directive RTRA-703-27-00 mitigations.

After the conclusion of the inspection, the inspector conducted a debrief with Assistant Director Rail Operations Quality Training, Charlie Richardson, in accordance with Program Standard Section 6.F.1.

Defects and Corrective Actions

WMSC Inspections identify safety issues that may be classified as defects, findings, or recommendations. Findings and recommendations are defined by Program Standard Section 5.E.2 and 5.E.3 respectively. Ordinarily, issues identified in a WMSC inspection report are classified as defects. Defects are specific safety issues of non-conformance/non-compliance that are identified and that require remedial action.

This inspection did not identify any findings or recommendations and therefore does not require a WMSC Corrective Action Plan in accordance with Program Standard Section 5.E.4.

The inspection identified that the mitigations that Metrorail implemented on December 31, 2024, are in effect and the inspection did not identify any defects. Therefore, it is only required that WMATA acknowledge receipt by **Monday, February 10, 2025**.

Non-Defect Observations

WMSC inspectors observed that the instructional slides were up-to-date with the Personnel Directive RTRA-703-27-00 mitigations that are aimed at addressing the present station overrun increase. Through a check of the instructional slides and observation of the instruction itself, the inspectors determined that the students in this class were being properly instructed with regard to Personnel Directive RTRA-703-27-00. Additionally, instructors and class participants indicated they had received, understood, and signed Rail Operations Personnel Directive RTRA-703-27-00.



Next Steps

Please respond by **Monday, February 10, 2025,** to acknowledge receipt.