



WMSC Inspection Report 20250211

ISSUED 02/14/2025

Inspection Details

Title: ATO Operation, Train Operations, and Station Berthing

Location: Red Line (B03-A15)

Date of Inspection: 2/11/2025

Time of Inspection: 7:00am to 12:00pm

Unannounced

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

Functional Area: Automatic Train Control & Signals, Operations

Hazard Rating: 2E

Overview

On Tuesday February 11, 2025, Washington Metrorail Safety Commission (WMSC) inspectors conducted an unannounced, risk-based inspection on Red Line tracks 1 and 2 between Union Station (B03) and Shady Grove Station (A15) to verify the implementation of Automatic Train Operation (ATO) mitigations regarding platform berthing, station servicing, and overruns.

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 mode 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 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 Inspection Report No. 2025-01-13B](#)).



WASHINGTON METRO RAIL 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 press the Station Step 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 verified the instruction of the mitigations being taught to rail vehicle operators during an inspection of on January 17, 2025 (see [Inspection Report No. 2025-02-05](#)).

This inspection aimed to verify rail vehicle operator adherence to Procedure or Instruction Number: SOP 40 (Procedure for Platform Berthing, Station Servicing and Overruns) dated August 15, 2023. And specifically, the mitigation that is Personnel Directive RTRA-703-28-00 (this being an updated version of the aforementioned Personnel Directive RTRA-703-27-00) reinforcing certain aspects of SOP 40.

After conclusion of the inspection, the WMSC conducted a debrief with a Rail Transportation superintendent 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.

This inspection did not identify any defects based on information known to the inspectors at the time of the inspection and, therefore, it is only required that WMATA acknowledge receipt by **Tuesday, February 18, 2025.**



Defect Observations and Determinations

Inspectors observed rail vehicle operators between Union Station and Shady Grove Station on both track 1 and track 2. Inspectors were positioned just outside the operator cab door during this part of the inspection. The inspection team observed 10 different trains operating for a minimum of five stops on each train. Train identification numbers for those observed:

- ID 104 – 8 cars consist lead car 3233 on track 2
- ID 106 – 6 cars consist lead car 3152 on track 2
- ID 108 – 8 cars consist lead car 3233 on track 2
- ID 129 – 6 cars consist lead car 7074 on track 1
- ID 133 – 8 cars consist lead car 7542 on track 1
- ID 135 – 8 cars consist lead car 7064 on track 1
- ID 142 – 6 cars consist lead car 3113 on track 2
- ID 144 – 8 cars consist lead car 7234 on track 2
- ID 146 – 6 cars consist lead car 3276 on track 2
- ID 148 – 8 cars consist lead car 7030 on track 2
- ID 129 – 8 cars consist lead car 3273 on track 1

Additionally, inspectors disembarked at Rockville Station to observe berthing while the train was operating in ATO at Rockville Station. Inspectors were observing from the platform during this part of the inspection. Train identification numbers for those observed at Rockville:

- ID 127 – 6 cars consist lead car 3158 on track 1
- ID 129 – 8 cars consist lead car 3273 on track 1
- ID 110 – 8 cars consist lead car 7*** on track 2 (lead car number was not captured)
- ID 114 – 8 cars consist lead car 7044 on track 2

During the time of this inspection, the WMSC observed no station overruns, no station short stops, and no rail vehicles entering stations at speeds in excess of 42mph.

Also, two advanced flaggers with proper personal protective equipment (PPE), orange flag, flashing amber e-flare, and briefing placard were positioned on the platform at the eight-car marker Track 1 at both Rockville and Grosvenor-Strathmore Stations (properly positioned for those two work zones that were occurring at the time of the inspection). After receiving the briefing from the advanced flagger, the rail vehicle operator was observed following Metrorail Operating Rulebook 8.10 (Advanced Mobile Flagging Operations), that is rail vehicle operator was observed properly changing train mode to Mode 2 – Level 1 and not exceeding 35mph.

Next Steps

Please respond by **Tuesday, February 18, 2025**, to acknowledge receipt.