



U.S. Department  
of Transportation

**Federal Transit  
Administration**

Headquarters

1200 New Jersey Avenue, SE  
Washington, DC 20590

May 30, 2017

Mr. Paul Wiedefeld  
General Manager and Chief Executive Officer  
Washington Metropolitan Area Transit Authority  
600 Fifth Street, NW  
Washington, DC 20001

**Subject: Approval of Safety Directive 16-5 Corrective Action Plans**

On August 15, 2016, the Federal Transit Administration (FTA) issued Safety Directive 16-5 to require the Washington Metropolitan Area Transit Authority (WMATA) to address findings resulting from FTA's investigation into stop signal overruns occurring on the Metrorail system between January 1, 2012 and July 31, 2016. WMATA submitted its proposed Corrective Action Plans (CAPs) to implement the FTA's required actions on October 14, 2016.

Over the last few months, the FTA reviewed these proposed CAPs, and in subsequent meetings with WMATA, requested revisions to the proposed implementation dates, or when not feasible demonstrate necessity for long-term completion dates, to show WMATA's commitment to addressing safety critical findings sooner. With WMATA's most recent submittal, provided on February 13, 2017, the FTA accepts eight of these CAPs; however, WMATA did not provide a detailed explanation for how they arrived at the completion dates for three CAPs, as noted in the enclosed tracking matrix, and are not accepted.

The FTA considers stop signal overruns significant safety events with the potential to result in derailment, collision of passenger trains, and the striking of workers or equipment on the rail transit right-of-way. We are concerned that WMATA has not explained the implementation timelines it proposed for the three CAP proposals we are rejecting.

Further, we note WMATA's safety performance in this area is deteriorating. WMATA experienced more stop signal overruns in calendar year (CY) 2016 than in CY 2015, and during the first 40 days of CY 2017, WMATA has seen a nearly two-fold increase in the number of stop signal overruns when compared to both CY 2015 and CY 2016. We require your leadership to expedite actions to address Safety Directive 16-5, and reduce stop signal overruns at WMATA.

We look forward to working with your team as they address these required actions. For additional information or assistance, please contact me at (202) 366-5303 or via email at [Angela.Dluger@dot.gov](mailto:Angela.Dluger@dot.gov).

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Sincerely,

Angela Dluger  
Director, FTA WMATA Safety Oversight

Enclosure: Safety Directive 16-5 Corrective Action Plan Tracking Mix

cc: Joseph Leader, Chief Operating Officer, WMATA  
Andrew Off, Assistant General Manager, Rail Services, WMATA  
Patrick Lavin, Chief Safety Officer, WMATA  
Angel Peña, Managing Director, Quality Assurance, Internal Compliance &  
Oversight, WMATA  
Sharmila Samarasinghe, Chair, Tri-State Oversight Committee



**Rejected Corrective Action Plan (CAP) responses**

Category	Finding	WMATA Required Action	ID	Due Date
Mainline and Yard Familiarity	WMATA does not ensure train and equipment operator familiarity with mainline and yard characteristics, including signal placement, interlocking locations, and track numbers.	To support train and equipment operator identification of signals, WMATA must improve the visibility of signal markers. (Example actions include replacing existing black and white markers with retro-reflective markers, and taking steps to ensure that the color of the marker cannot be mistaken for signal aspect.)	FTA-RED-16-001-a	07/31/2019
Mainline and Yard Familiarity	WMATA does not ensure train and equipment operator familiarity with mainline and yard characteristics, including signal placement, interlocking locations, and track numbers.	To support train and equipment operator orientation on the Metrorail system, WMATA must increase the availability of location information. (Example actions include the provision of additional detail on wayside signage at the end of station platforms, including the direction of travel, line, and location of any interlockings prior to the next station.)	FTA-RED-16-001-b	04/30/2018



Category	Finding	WMATA Required Action	ID	Due Date
Departure from Stations and Terminals and Movement with Zero Speed Commands	WMATA has not fully implemented sufficient protections against the unauthorized movement of trains with zero speed commands.	WMATA must complete and perform a hazard analysis regarding the positive stop option, and any other options, currently under review to prevent trains from operating with zero speed commands without authorization from the ROCC system wide.	FTA-RED-16-003-b	03/05/2019



**Accepted CAP responses**

Category	Finding	WMATA Required Action	ID	Due Date
Mainline and Yard Familiarity	WMATA does not ensure train and equipment operator familiarity with mainline and yard characteristics, including signal placement, interlocking locations, and track numbers.	To enhance train and equipment operator familiarity with the Metrorail system, WMATA must increase opportunities for visual observation of the system as part of its program to address FTA-RED-15-004. (Examples include, as part of the new physical characteristics training program, incorporating the use of video or simulation technologies for each line and yard.)	FTA-RED-16-001-c	03/27/2017
Departure from Stations and Terminals and Movement with Zero Speed Commands	WMATA train operators do not consistently verify lunar signal aspect and speed commands prior to taking a point of power.	WMATA must increase rules checks, including random testing for conformance with stop signals, to ensure WMATA operators are complying with Rule 3.67 and 3.79, and must incorporate these additional checks and random testing program into the agency's response to FTA-RED-15-001.	FTA-RED-16-002-a	05/30/2017



Category	Finding	WMATA Required Action	ID	Due Date
Departure from Stations and Terminals and Movement with Zero Speed Commands	WMATA train operators do not consistently verify lunar signal aspect and speed commands prior to taking a point of power.	WMATA must formalize its program for conducting a dedicated review of signal system downloads to monitor train operator performance and must incorporate this program into the agency's response to FTA-RED-15-001.	FTA-RED-16-002-b	05/25/2017
Departure from Stations and Terminals and Movement with Zero Speed Commands	WMATA has not fully implemented sufficient protections against the unauthorized movement of trains with zero speed commands.	WMATA must review its Fatigue Risk Management System (FRMS), available to all WMATA employees via the Metroweb, to ensure that this program provides train operators with sufficient information and training to assist them in the managing of their mental state and attention as required when engaged in train operations, including topics such as personal readiness and the use of the point-of-power stickers installed on the consoles of the operating cabs.	FTA-RED-16-003-a	06/29/2017



Category	Finding	WMATA Required Action	ID	Due Date
Departure from Stations and Terminals and Movement with Zero Speed Commands	WMATA has not fully implemented sufficient protections against the unauthorized movement of trains with zero speed commands.	Once the modification at the Grosvenor-Strathmore Station Center Pocket Track is fully implemented, WMATA must establish a program to monitor its performance.	FTA-RED-16-003-c	06/07/2017
Communication with ROCC and Interlocking Operators	WMATA does not ensure consistent understanding among train and equipment operators and the ROCC or Interlocking Controllers.	WMATA must develop and implement a procedure for auditing radio protocol, radio communications, and for ensuring conformance with Permanent Order T-16- 10 Radio Protocols, Modification to General Rule 1.79.	FTA-RED-16-004-a	08/08/2017
Communication with ROCC and Interlocking Operators	WMATA must continue to improve radio quality, as identified previously in the FTA's SMI report.	WMATA must provide FTA with a quarterly report documenting its assessments and findings regarding radio quality, and planned corrective actions.	FTA-RED-16-005-a	11/1/2017



Category	Finding	WMATA Required Action	ID	Due Date
Stop Signal Overrun Investigation	WMATA does not conduct sufficient investigations into stop signal overruns to identify trends and implement effective mitigations.	WMATA's Department of Safety and Environmental Management must create, either as a standalone document or as part of its own accident investigation procedure, an enhanced stop signal overrun investigation process with standardized data fields for trending and analysis.	FTA-RED-16-006-a	02/08/17