Corrective Action Plan (CAP) ID	Findings/Required Action	Approved WMATA Planned Completion Date
NTSB R-8-004-A	Promptly implement appropriate technology that will automatically alert wayside workers of approaching trains and that will automatically alert train operators when approaching areas with workers on or near the tracks.	December 2022
FTA-Rail-1-1-A	WMATA must fully staff the Rail Operations Control Center.	July 2021
FTA-Rail-1-3-A	WMATA must establish a program to provide each Rail Traffic Controller with mandatory road days for territory familiarization and to keep up with changing system elements.	January 2020
FTA-Rail-1-5-A	WMATA must ensure Rail Traffic Controller workload and distraction do not interfere with the safe and efficient movement of trains.	January 2020
FTA-Rail-4-27-A	Documented maintenance procedures and standard operating procedures are not implemented as required. For all major departments with inspection and maintenance responsibilities for critical infrastructure, WMATA must establish and/or update a preventive maintenance and inspection testing quality audit process to ensure compliance with established maintenance and testing practices, and to monitor missed or incomplete preventive maintenance activities and/or inspections.	January 2021
FTA-RAIL-4-32A	WMATA must ensure that each department within Transit Infrastructure and Engineering Services creates a formal program of Supervisory inspections to observe maintenance, look at quality of work in the field, and formally intervene to evaluate, re-train (if necessary), and enhance the professional development of employees.	March 2020
FTA-Rail-5-35-A	WMATA must do more to prevent and manage conditions that cause smoke in tunnels. WMATA must establish clear definitions for infrastructure conditions requiring immediate or emergency action, such as "arcing insulator."	July 2020
FTA-Rail-7-41-A	WMATA's IT Department lacks necessary authority to ensure that all WMATA departments use IT applications in the same manner to ensure data sharing, coordination of training, and conduct of audits in a consistent manner. WMATA must assess data accessibility and coordination needed to support safety functions throughout the agency including the operations and maintenance departments.	WMSC to reissue findings on this CAP
FTA-Rail-8-44-A	Continuous welded rail installation and maintenance program changes have not been sufficiently evaluated. WMATA must complete required submittals to close-out 2012 Safety and Maintenance Audit Recommendation #2 relating to WMATA's rail de-stressing program.	February 2020
TOC-ATC-15-002-A	The ATC Branch or SAMS must provide a revised Maximo inventory list with obsolete tools removed and regained calibration compliance. Also, the ATC Branch and SAMS must develop a documented tool distribution control method so that new equipment/tools are not issued until old ones are returned, and the person receiving the old equipment removes it from the inventory and maintenance cycle in Maximo.	June 2020
TOC-ATC-15-011-A	WMATA’s ATC Branch must establish requirements in its Maintenance Control Policy (MCP) for quality control spot checks and resulting documentation to be completed by each Supervisor. (Note: This is different than TOC-ATC-15-006 that prescribes spot checks of Supervisor work; this finding relates to Supervisor spot checks of technician work.)	November 2020

TOC-COL-15-003-A	Design and install a new railing system that reduces the number of openings and eliminates the ability of the hand rails to swing into the direction of the dynamic envelope of a rail car in all shop locations and rail facilities to replace the sectional type of railing system currently installed.	February 2022
TOC-OSP-15-001-A	WMATA must develop and implement a hearing conservation program in compliance with Occupational Safety and Health Administration (OSHA) requirements.	July 2021
TOC-OSP-15-006-A	WMATA must separate incompatible hazardous materials into their respective compatible flammable storage cabinets, and take steps to ensure continued compliance such as reinstruction of personnel, and emphasis on the topic during each Car Maintenance 12-point shop inspection.	January 2020
TOC-RWP-15-008-A	The development and issuance of technical documentation does not appear to be governed by an engineering standard or procedure. WMATA must develop or update its engineering process for developing, reviewing, approving, issuing and updating technical documentation.	January 2021
TOC-SRT-15-003-A	WMATA must update its existing quality control check procedure to make it more specific, including a checklist and specific instructions for Structures Maintenance Managers to conduct spot checks through field verification and to document results or corrective actions that are completed.	April 2020
TOC-SRT-15-004-A	WMATA requires the Maintenance Control Policy (MCP) be reviewed annually, but the last update was in February 2013. WMATA must complete the required MCP revision with full updates to references and procedures as necessary.	January 2021
FTA-RED-16-003-B	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.	July 2020
FTA-RED-16-004-A	WMATA does not ensure consistent understanding among train and equipment operators and ROCC or Interlocking Controllers. WMATA must develop and implement a procedure for auditing radio protocol, radio communications, and for ensuring conformance	January 2021
FTA-16-4-T-6-A	WMATA must establish a clear process for imposing and removing speed restrictions.	January 2020

FTA-17-1-7	FTA-TPE-17-007-a: WMATA must establish new insulator design specifications for composite (fiberglass) and porcelain insulators, including the two-piece insulator discussed to facilitate more efficient and economical insulator replacement activities. FTA-TPE-17-007-b: WMATA must revise the current insulator replacement work instruction to include proper storage, transportation, and handling of insulators to reduce damage to new insulators before and during installation. FTA-TPE-17-007-c: WMATA must establish insulator mortality rates and implement cyclical replacement program for each type of insulator used. FTA-TPE-17-007-d: , WMATA must develop and implement a formal program for cleaning insulators, including work instructions to ensure the safety of WMATA employees. FTA-TPE-17-007-e: WMATA must establish a formal quality testing and inspection program to ensure conformance of the delivered insulators with WMATA's specifications. FTA-TPE-17-007-f: WMATA must ensure new insulator anchors are installed to WMATA standards, including providing epoxy insulating dielectric material to ensure that the anchor bolts do not provide an electrical path to structural ground. FTA-TPE-17-007-g: WMATA must develop a plan to identify and correct the installation of insulator anchors without appropriate epoxy insulating dielectric material.	October 2019
FTA-17-1-10	FTA-TPE-17-004-a: WMATA must implement its program to secure traction power cables off the ground. FTA-TPE-17-009-a: WMATA must conduct an assessment and implement additional methods to provide improved dielectric insulation in the area of cable terminations, such as non- tracking heat shrink, utilizing alternative products for cable transitions at duct lines, and providing additional physical barriers where there is close clearance to metallic structures. FTA-TPE-17-017-a: WMATA must reinstate its program for cable replacement to support 100 percent 8-car train operations, including the replacement of all primary and secondary TPE system cables, and must provide a timeline and project plan. FTA-TPE-17-018-a: WMATA must revisit its cable upgrade program for 50 percent and 100 percent 8-car operational plan and develop a capital cable replacement program for substation negative return and wayside cross bonding. FTA-TPE-17-019a: WMATA must provide a written explanation regarding the suspension of the contact rail expansion joint elimination program	June 2021

FTA-17-1-13	FTA-TPE-17-010-a: WMATA must evaluate the traction power direct current feeder breaker settings at substations and tie breakers to determine the optimal settings for various track side conditions, including instantaneous short circuit ratings, time over current settings, and rate of rise settings. FTA-TPE-17-010-b: WMATA must provide criteria and test results for circuit breaker relay settings. FTA-TPE-17-010-c: WMATA must develop and submit its program plan for installing, testing, and evaluating the effectiveness of the use of multi-protection relays for detecting low level faults. FTA-TPE-17-010-d: WMATA must evaluate the addition of transfer trip circuitry for de- energizing feeds from adjacent power stations during troubled conditions and implement results. FTA-TPE-17-015-a: WMATA must re-evaluate previous current draw and load calculations to include field surveys to ensure that the actual condition of the cables and bonds are considered in the requirements analysis for 100 percent 8-car train operation. FTA-TPE-17-016-a: WMATA must develop and implement a program for assessing the condition of relays at traction power substations to prioritize upgrades, replacements, and/or repairs. FTA-TPE-17-020-b: WMATA must review fault detection relay settings and determine if adjustments are required due to the new electrical properties for composite third rail.	July 2020
FTA-17-1-16	WMATA does not implement a consistent program regarding the testing, inspection, and maintenance of its negative return system. WMATA must document negative return system defects in the maintenance and repair trouble ticket system (Maximo) and assign responsibility for timely repairs.	January 2021
FTA-TSR-18-001	WMATA does not consistently implement post-accident drug and alcohol programs. WMATA must ensure that employees are sent for post-accident testing in compliance with FTA Drug and Alcohol Testing Program requirements.	May 2020
FTA-TSR-18-003	WMATA does not consistently implement its Hazard Management Procedure. WMATA must evaluate the efficacy of its current Hazard Management Procedure, and revise, as appropriate, to ensure that hazards are identified and resolved.	January 2022
WMSC 19-C0001	Metrorail lacks sufficient capability to collect safety-related data from assets via telemetry sources and analyze that data for use to improve the safety of those assets, which is a critical element of SMS. Metrorail must design and test a strategy to improve the collection of safety-related telemetry data from its assets.	January 2021
WMSC 19-C0002	Metrorail lacks sufficient capability to collect safety-related data from assets via telemetry sources and analyze that data for use to improve the safety of those assets, which is a critical element of SMS. Metrorail must design and test a strategy that will correlate the improved safety data to each asset.	January 2021
WMSC 19-C0003	Metrorail lacks sufficient capability to collect safety-related data from assets via telemetry sources and analyze that data for use to improve the safety of those assets, which is a critical element of SMS. Metrorail must design and test a strategy to use existing software packages to analyze data for review and assessment by rail operations and maintenance personnel	January 2021
WMSC 19-C0004	Metrorail lacks sufficient capability to collect safety-related data from assets via telemetry sources and analyze that data for use to improve the safety of those assets, which is a critical element of SMS. Metrorail must design and test a strategy to use the analyses to implement corrective action plans, work orders, and engineering test plans/engineering modification instructions.	January 2021

WMSC 19-C0005	Metrorail lacks sufficient capability to collect safety-related data from assets via telemetry sources and analyze that data for use to improve the safety of those assets, which is a critical element of SMS. At the conclusion of designing and testing a strategy to improve, analyze and act upon safety data, Metrorail must produce a lessons learned document, including a plan for a Metrorail enterprise rollout of the system.	September 2022
WMSC 19-C0006	The Rail Operations Control Center must be appropriately staffed to meet current operational needs. WMATA must determine the number of ROCC staff required given the current operational and maintenance activities and must provide details that support the staffing number.	TBD based on approved plan which remains in development
WMSC 19-C0007	The Rail Operations Control Center must be appropriately staffed to meet the current operational needs. WMATA must develop a plan to reach the required level of ROCC staffing under C0006 through innovation in recruitment, training, retention; and, achieve that staffing level.	TBD based on approved plan which remains in development
WMSC 19-C0008	Metrorail does not currently have an effective hours of service policy. Metrorail must develop and implement an effective hours of service policy as part of an overall fatigue management program	October 2020 (part), September 2022 (part)
WMSC 19-C0013	Operator cab camera was blocked due to the intentional placement of a movable visor to block the camera view. WMATA shall develop an engineering fix to the 7000 Series to prevent visor and operator cab camera interference.	TBD based on approved plan which remains in development
WMSC 19-C0014	Operator cab camera was blocked due to the intentional placement of a movable visor to block the camera view. WMATA shall incorporate any operator cab camera engineering fix as a lesson learned into the 8000-series specifications and Certifiable Items List.	TBD based on approved plan which remains in development
WMSC 19-C0015	Metrorail must institute improvements to reduce station overruns, including, but not limited to, creating an official definition of what constitutes a station overrun, establishing a rule that governs train speeds on approach to stations, and creating a non-punitive labor/management incident review board	October 2020
WMSC 19-C0016	Metrorail must institute operational improvements such as monitoring and measuring compliance of its rail controllers and train operators with Rule 3.79, raising awareness through training, stand-downs, and similar activities, and, conducting non-punitive incident review boards consisting of train operators and controllers involved in Rule 3.79 incidents to better understand opportunities for improvement.	October 2020
WMSC 19-C0017	Metrorail must create a map or similar inventory of mainline locations in which train operators routinely lose speed commands, identify the reason for the loss of speed commands, and propose a work plan and timetable for permanently correcting these and any future defects.	February 2021
WMSC 19-C0018	Metrorail must amend its Personal Electronic Devices (PEDs) policy to require employees to turn over (or cause to be turned over) devices and records upon request	July 2020
WMSC 19-C0019	Metrorail must develop a program to actively detect the unauthorized presence and use of electronic devices through video review, inspection, and efficiency testing; and raising awareness of the Personal Electronic Device (PED) policy and inspection activities though training, stand downs, and similar activities.	April 2020
WMSC 19-C0020	Metrorail must eliminate the dangerous dysfunction within the Rail Operations Control Center (ROCC) by taking actions that include, but are not limited to, requiring and allowing controllers to follow written protocols and checklists, improving communication and workflow, and avoiding oversaturating controllers and distracting them with conflicting instructions.	December 2020

WMSC 19-C0021	WMATA does not have a complete written set of current protocols governing maintenance practices for track and structures. WMATA must make the necessary document updates and revisions to create a complete set of protocols for track inspections and maintenance.	January 2021
WMSC 19-C0022	WMATA personnel responsible for conducting track maintenance activities follow no formal protocols to govern their repair and installation work. WMATA must finalize and issue all relevant procedure manuals, along with any supplementary instructions and/or refresher training to ensure that personnel have and follow proper procedures including complete procedures for tasks such as thermite welding, rail destressing, and continuous welded rail installation, in accordance with Section 10.4 of the APTA Standard RT-FS-S-002-02.	April 2021
WMSC 19-C0023	WMATA must assign a specific person (and an alternate) to record actual ambient temperatures every day of the late spring, summer, and early fall to ensure that the agency actually conducts and documents all required heat-ride inspections.	TBD based on approved plan which remains in development
WMSC 19-C0024	WMATA has disseminated inconsistent instructions to TRST and other personnel on whether heat-ride inspections and monitoring begin at 90 degrees Fahrenheit or above 90 degrees Fahrenheit. WMATA must clarify its written temperature thresholds for heat-ride inspections and monitoring.	TBD based on approved plan which remains in development
WMSC 19-C0025	WMATA had no records to indicate that TRST personnel are refilling rail lubricators consistent with the TRST-1000. WMATA must create a new recurring work order in Maximo for lubricators to be refilled on a fixed schedule and begin implementing the new schedule.	December 2021
WMSC 19-C0026	WMATA does not conduct annual culvert inspections as specified in Section 105.1 of the TRST-1000. WMATA must add culverts as an asset in Maximo and begin scheduling annual inspections as specified in Section 105.1 of the TRST-1000.	March 2022
WMSC 19-C0027	WMATA does not have a weed spraying program consistent with industry standards. TRST must conduct vegetation cutting and weed spraying using an acceptable chemical product.	TBD based on approved plan which remains in development
WMSC 19-C0028	WMATA has disseminated conflicting directions to TRST personnel about what procedures are appropriate for purposes of verifying speed restrictions. TRA and TRST must work together to ensure SOP #30, MSRPH Chapter 5, and the TRST-1000 and any other governing documents are consistent regarding who verifies a speed restriction and by what method(s).	December 2020
WMSC 19-C0029	WMATA has not provided to all TRST personnel the documents that govern quality control activities. The documents that guide quality control activities are absent from the current version of the TRST-1000. WMATA must update the list of forms in Section 102.11 of the TRST-1000 and add examples (of blank and completed forms) to the manual.	TBD based on approved plan which remains in development
WMSC 19-C0030	TRST inspectors use outdated versions of the Secondary Yard Inspection Form guiding storage track inspections. TRST must institute version control on these and other forms in accordance with its TRST-2000. TRST should also ensure that the field for preventive maintenance (PM) work order number and any other missing fields is used on all these forms.	November 2020
WMSC 19-C0031	Quality control checks by TRST supervisors occur infrequently and inconsistently with TRST's protocols. TRST must institute a step for regular management review of the Supervisor quality control checks to ensure they are being completed as required.	April 2021

WMSC 19-C0032	WMATA uses equipment operators to perform track repairer duties without first providing such personnel with formal training. TRST must either prohibit equipment operators from conducting track repairer duties or require that equipment operators complete the track repairer courses before being assigned such work. TRST must also issue training cards or "licenses" indicating their qualification to operate specific types of track equipment.	February 2021
WMSC 19-C0033	WMATA cannot verify that defects identified during track geometry vehicle inspections are repaired. WMATA must adjust TGV data spreadsheets and/or Maximo to log the repair of any detected defects and open work orders for any outstanding defects that need to be repaired or monitored.	TBD based on approved plan which remains in development
WMSC 19-C0034	TRST lacks job-specific training for newly hired or promoted supervisors. WMATA must institute training for duties specific to TRST supervisors, including how to conduct and document quality control checks, ensuring assignment of work to qualified inspectors/equipment operators, and use of Maximo to prioritize and plan work.	TBD based on approved plan which remains in development

** Note: This table includes all outstanding CAPs as of May 15, 2020. It does not include CAPs that Metrorail was not yet required to propose by that date. CAPs still in development beyond the required date frequently are undergoing revisions directed by the Commission to ensure that the final plans, when fully implemented, will address the finding or risk