### The Washington Metrorail Safety Commission

# Safety Audit

of the Washington Metropolitan Area Transit Authority

Audit of Track Maintenance and Training

> Final Report: February 13, 2020

ATON METRORY

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*Correction (Jun. 24, 2020): Finding #3 reflects dates starting in May 2018 not May 2019.* 

Due to this correction, the official finding in WMSC records now reads:

"WMATA conducted heat-ride inspections on thirteen percent, or 11 of 85, days when the outside air temperature reached the point at which WMATA's protocols require such inspections be conducted".



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### **Executive** Summary

The Washington Metrorail Safety Commission (WMSC) is the independent agency certified pursuant to 49 Code of Federal Regulations (CFR) Part 674 as the SSO agency that conducts safety audits of the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system. The Federal Transit Administration (FTA) requires a designated State Safety Oversight Agency (SSOA) to oversee safety programs for rail transit agencies within the jurisdiction of the SSOA, including conducting an on-site safety audit of each element of the rail transit agency's safety plan and referenced procedures at least once every three years. The Washington Metrorail Safety Commission (WMSC) is the independent agency certified pursuant to 49 Code of Federal Regulations (CFR) Part 674 as the SSOA that conducts safety audits of the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system.

The WMSC produces this audit of WMATA's track maintenance and training based on interviews of personnel from WMATA's Track and Structures (TRST) department, reviews of WMATA safety policies and procedures documents, reviews of TRST records, and observations of field inspection activities conducted by TRST personnel.

**Key documents referenced in this report.** The TRST-1000 Vol. 1 is Metrorail's guiding document for the methods and specifications for conducting track inspections. Although WMATA retired it in 2015, the WMATA-2000 TRST Maintenance Control Policy describes the maintenance standards and activities that are to be used for maintaining the track infrastructure.

**American Public Transportation (APTA) Standards.** This report refers to APTA standards. These standards address various aspects of the industry including operations, training, and inspections. APTA standards are designed to be a resource for all rail transit programs, large and small. They reflect industry consensus on practices for rail transit systems. These standards provide procedures for inspecting and maintaining rail transit tracks:

- to ensure special life/safety equipment is operational and reliable;
- to help rail transit systems incorporate safety considerations during the inspection and maintenance process; and,
- to identify inspection criteria and maintenance standards that provide a high level of passenger and personnel safety.

Finally, APTA standards provide minimum requirements for inspecting and maintaining tracks and are typically the basis for transit systems such as Metrorail to create inspections and maintenance programs.

**Maximo.** This is an electronic asset maintenance system that TRST and all other maintenance departments use. This system provides asset management, work management, materials management, and purchasing capabilities to help streamline processes, maximize productivity, and extend the life of Metrorail assets.

### Executive Summary (continued)

**Conclusions.** The WMSC concludes that there has been progress within TRST in addressing staffing shortages, a problem noted by the FTA based on the FTA's evaluations of TRST in 2015 and 2016 during its direct safety oversight of the Metrorail system. This progress is described in greater detail in the General Assessment portion of this report.

The WMSC also concludes that there are issues that TRST must address. The WMSC identified 16 findings related primarily to inconsistencies in procedures and forms distributed to personnel, shortfalls in conducting certain types of inspections, and the need for improvements in job-specific training. These findings must be addressed to ensure that TRST's procedures and training preserve consistency and reliability of work performed. The following are the findings that require WMATA to propose corrective actions to bring the system into compliance. WMATA's proposed corrective actions must receive approval from the WMSC:

- **Finding 1:** WMATA does not have a complete written set of current protocols governing maintenance practices for track and structures.
- Finding 2: WMATA personnel responsible for conducting track maintenance activities follow no formal protocols to govern their repair and installation work.
- Finding 3: In 2019, WMATA conducted heat-ride inspections on thirteen percent, or 11 of 85, days when the outside air temperature reached the point at which WMATA's protocols require such inspections be conducted.
- Finding 4: 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.
- Finding 5: WMATA had no records to indicate that TRST personnel are refilling rail lubricators consistent with the TRST-1000.
- Finding 6: WMATA does not conduct annual culvert inspections as specified in Section 105.1 of the TRST-1000.
- Finding 7: WMATA does not have a weed spraying program consistent with industry standards.



- Finding 8: WMATA has disseminated conflicting directions to TRST personnel about what procedures are appropriate for purposes of verifying speed restrictions.
- Finding 9: 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.
- **Finding 10:** TRST inspectors use outdated versions of the Secondary Yard Inspection Form guiding storage track inspections.
- **Finding 11**: Quality control checks by TRST supervisors occur infrequently and inconsistently with TRST's protocols.
- Finding 12: WMATA cannot confirm whether new work orders are opened as a result of defects identified during TRST inspections.
- **Finding 13:** WMATA cannot verify that defects identified during track geometry vehicle inspections are repaired.
- **Finding 14:** TRST lacks job-specific training for newly hired or promoted supervisors.
- **Finding 15:** WMATA does not have written training requirements for the various TRST positions, as required by the SSPP.
- **Finding 16:** WMATA uses equipment operators to perform track repairer duties without first providing such personnel with formal training.

The WMSC requires WMATA to propose Corrective Action Plans (CAPs) to address each of these findings.



## Background and Scope

The FTA requires a designated SSOA to conduct safety oversight programs for rail transit agencies within its jurisdiction pursuant to 49 CFR Part 674. The WMSC is the independent agency certified under 49 CFR Part 674 as the SSOA for the WMATA Metrorail system and is required to conduct an audit of each element of the rail transit agency's safety plans and referenced procedures within a three-year period. The WMSC audits each element of WMATA's safety plan by conducting separate topic-area audits over the course of a three-year period. These elements consist of, among others, rail transportation, traction power and roadway worker protection.

This audit covers track maintenance and associated training including components of WMATA's System Safety Program Plan (SSPP). The SSPP is a document created by WMATA and signed by its chief executive. The SSPP outlines activities that WMATA Metrorail undertakes to ensure the safety of its customers, employees and emergency responders. The SSPP describes the management structure, roles and responsibilities, policies, procedures, and rules governing all activities necessary to conduct safe operations on Metrorail, including inspection and maintenance practices. The SSPP is especially instructive in guiding this audit and allowing the WMSC to measure WMATA's performance against WMATA's commitments to uphold and improve safety. The following sections of the SSPP help inform this audit:

Element 2 (Purpose, Goals, and Objectives)

Element 3 (Management Structure)

**Element 5** (SSPP Implementation Tasks and Activities)

#### • Element 6

(Hazard Management Process)

#### Element 9

(Safety Data Collection and Analysis)

Element 15

 (Maintenance Audits and Inspections)

#### Element 16

(Training and Certification)

This audit covers track maintenance and associated training including components of WMATA's System Safety Program Plan (SSPP). The SSPP is a document created by WMATA and signed by its chief executive.



#### Background and Scope (continued)

The WMSC began its audit activities in July 2019, and through the fall of 2019 the WMSC conducted its analysis and evaluation of the information WMATA presented. The WMSC conducted the following activities in preparation of this audit report:

- Conducting an opening conference with WMATA personnel to explain the audit process, schedule, and timeframes;
- Obtaining and reviewing up-to-date plans, policies, and procedures governing the inspection and maintenance of track infrastructure and related training;
- Interviewing TRST and other management personnel responsible for inspection and maintenance of track infrastructure;
- Observing TRST personnel inspecting a section of Green Line track from Southern Avenue to Branch Avenue stations;
- Observing TRST personnel inspecting switches and track at Glenmont Yard;
- Observing TRST personnel attempting a track repair and fastener replacement near Eastern Market station;
- Reviewing a selection of preventive maintenance records related to the inspection of track infrastructure that are representative of the entire Metrorail territory and associated track inspection and maintenance needs;
- Reviewing a selection of records of initial and refresher training for track inspection and equipment operations that are representative of the entire Metrorail territory and associated track inspection and maintenance needs;
- Evaluating Metrorail's compliance with established plans and procedures based upon the above sources of information; and,
- Conducting an exit conference to explain initial findings and outstanding items for follow-up.

The following sections present a general assessment and discussion of the WMSC's findings. These are new findings that do not have an associated CAP currently being implemented to remedy the noted finding.



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Photo Courtesy WMATA

### General Assessment

The WMSC found several instances in which WMATA has made progress in recent years.

**Staffing.** In 2015 and 2016, the FTA conducted various audits and safety inspections. These efforts uncovered numerous safety gaps. In response to the FTA's efforts, it appears TRST has instituted new, proactive processes to prevent staffing shortages among its inspectors and maintainers. TRST engages in regular meetings and dialogue with the WMATA Human Resources Talent Acquisition department (HRTA), uses contractors to fill in for temporary and one-time work, and has reorganized its structure to reflect efficiencies. WMSC encourages TRST to build on this progress.

**Data collection.** TRST conducts important collection, analysis, and reporting of safety-related data. These data include incidents by failure type and location and other information that personnel report and analyze through WMATA programs like RailStat and MaxStat. These data can help identify areas in need of enhanced inspection or replacement work. As WMATA uses the Safety Management System (SMS) approach to guide its management of hazards, TRST should use the data and analyses available to it to ensure that its inspection and maintenance efforts are properly scaled and employed to match the track infrastructure needs.

**Training.** The WMSC observed that TRST complies with its written protocols for the initial training of new TRST employees.

**QICO.** The WMSC verified that WMATA's Quality Assurance, Internal Compliance and Oversight department (QICO) conducts in-depth internal audits of WMATA's track inspection and maintenance activities. QICO follows up with TRST on outstanding findings and action items until the items are resolved. QICO regularly evaluates TRST's efforts and provides routine reports that convey status based upon metrics that QICO has developed.

The WMSC found several instances where progress is lacking and where WMATA must take corrective action. These findings are discussed below. A common theme among many of the findings is that key documents governing maintenance policies and procedures have either been retired or been rendered obsolete. Yet TRST continues to rely on these outdated documents to guide its activities. WMATA's rationale for this practice is not convincing. These documents are the cornerstone for the reliable and consistent conducting of track maintenance activities. In turn, if track is not maintained to a consistent, reliable specification, track conditions can continue to degrade, resulting in single tracking activities for emergency repairs and safety events such as derailments.

TRST has instituted new, proactive processes to prevent staffing shortages among its inspectors and maintainers.



Photo Courtesy WMATA

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### Findings and Required Corrective Actions

**Finding 1: WMATA does not have a complete written set of current protocols governing maintenance practices for track and structures.** TRST-1000 Vol. 1 – Track Inspection Safety Standards and the WMATA-2000 TRST Maintenance Control Policy pertain to maintenance activities. The TRST-1000 Vol. 1 governs track inspection activities. The WMATA-2000 Maintenance Control Policy governs track maintenance activities. However, the WMATA-2000 document was retired in 2015, and a new official successor document has not yet been issued. The WMSC observed that WMATA is using a mixture of protocols it made obsolete in 2015 and some documents that do not reflect changes to organizational responsibilities and practices that have been made over the last two years. The WMATA-2000 document notes that its purpose is to ensure mission-critical track and structures functions are maintained according to established track standards and procedures, and that changes to these functions and standards are properly documented, reviewed, and approved. However, in practice, WMATA does not comport with these stated objectives.

**Corrective action:** WMATA must make the necessary document updates and revisions to create a complete set of protocols for track inspections and maintenance.

### Finding 2: WMATA personnel responsible for conducting track maintenance activities follow no formal protocols to govern their repair

and installation work. The APTA Standard for Rail Transit Track Inspection and Maintenance (APTA RT-FSS-002-02) includes instructions for maintenance tasks. The predecessor document to the TRST-1000 included work instructions, but this section was not included in the TRST-1000 Volume 1, which was issued in October 2018. Volume 2 is expected to include work instructions, according to TRST management, but it remains in draft form. WMATA was not able to provide a clear answer as to whether the initial inspector and maintainer training covers old protocols. It appears that WMATA is instructing personnel to refer to outdated or superseded documents. It is important for maintenance personnel to receive and be trained on work instructions to ensure that they complete maintenance uniformly and in accordance with safety-related requirements.



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**Corrective action:** 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. WMATA must ensure that this includes complete instructions 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.

Finding 3: In 2019 WMATA conducted heat-ride inspections on thirteen percent, or 11 of 85, days when the outside air temperature reached the point at which WMATA's protocols require such inspections be conducted. The WMSC observed that WMATA did not conduct heat-ride inspections during the majority of days reaching its high-temperature thresholds, although TRST-1000 Vol. 1 and a TRST memo circulated on heat rides require such inspections. These two documents state that "[h]eat rides will commence whenever the temperature reaches 90 degrees." Heat rides are necessary because rails slowly expand and contract as ambient temperatures rise and fall. A best practice requires that careful engineering measures be taken when rail is installed to guard against unreasonable rail expansion and contraction. The ties, rock ballast, and rail anchors (which hold the rail longitudinally), must collectively be strong enough to keep the rail solidly in place, instead of allowing the rail to expand or contract. Similarly, under extreme heat, the rail, can experience a "sun kink," which causes the track to shift laterally causing a curve in the track. When a kink or high tension is found in the track, rail agencies commonly take the track out of service, repair any defect, and then return the track to service. To address these issues, rail agencies engage in what are known as "heat rides" to detect buckling or kinks in the rail that can lead to derailments.

The WMSC obtained data reflecting daily high temperatures recorded at area airports for the period beginning May 2019, and ending July 22, 2019. During that time period, the temperature at Reagan National Airport (where the official temperature for the Washington, D.C. region is measured) reached 90 degrees on 85 separate days. Yet WMATA could only identify 11 days on which it carried out heat-ride inspections.

**Corrective action:** 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 conducts and documents heat-ride inspections.

Finding 4: 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. In one part of these instructions it notes that heat inspections should be performed when the ambient temperature reaches 90 degrees, in another section of the same document it refers to such heat inspections when the ambient temperature exceeds 90 degrees. The inconsistent language appears in Volume 3 of TRST-1000 Section 5.10 and was disseminated to personnel as the only existing instruction on heat monitoring. Lack of clarity in the specific threshold for conducting heat inspections can contribute to personnel not activating the inspections on applicable days.

**Corrective action:** WMATA must clarify its written temperature thresholds for heat-ride inspections and monitoring.

**1** 90°

Heat rides will commence whenever the temperature reaches 90 degrees. Heat rides are necessary because rails slowly expand and contract as ambient temperatures rise and fall.

"Heat rides" detect buckling or kinks in the rail that can lead to derailments. (continued)

Finding 5: WMATA had no records to indicate that TRST personnel are refilling rail lubricators consistent with the TRST-1000. The TRST-1000 states that maintainers should "[r]efill lubricant reservoir[s] on a fixed schedule, not when lubricant has been used up." These lubricators are installed on restraining rail. A restraining rail is used to reduce the lateral forces transmitted to the higher rail in a curve by taking some of the wheel load off the higher rail. This reduces the possibility of some types of derailment, reduces squealing noise, and reduces wear on both the high rail as well as the wheel flanges. However, the restraining rail itself is subject to wear from abrasion with the back-of-flange of passing wheels. Restraining rail lubrication systems have been installed to reduce wear on the restraining rail. Because noise is produced by the wheel back-of-flange rubbing on a dry restraining rail, lubrication also reduces this type of noise. Inspection of lubricators and lubricant is part of the regular track inspection by WMATA track inspectors pursuant to the TRST-1000 Vol. 1. WMATA reported that lubricators have a separate work order entry in Maximo. The WMSC requested a sample of work orders, but WMATA produced none, suggesting that TRST fails to properly monitor the installation and refilling lubricators.

**Corrective action:** 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.

**Finding 6: WMATA does not conduct annual culvert inspections as specified in Section 105.1 of the TRST-1000.** Culverts can be defined as an opening in or a conduit passing through an embankment, usually for the passage of water. These structures are prone to serious problems if not inspected and maintained on a regular basis. Quite often culvert deficiencies are only detected when track surface irregularities are encountered; yet these potential problems can be detected and corrected long before deterioration of the track surface occurs. The TRST-1000 assigns the task of culvert inspections to track inspection personnel, specifies steps for the inspection, and requires an inspection report to be issued. As stated in the TRST-1000, "Culverts must be maintained to provide adequate opening through the roadway for passage of water under the track structure. Culverts must be kept free of obstructions as a guard against washouts and other damage to the roadbed."



Photo Courtesy WMATA

**Corrective action:** WMATA must add culverts as an asset in Maximo and begin scheduling annual inspections as specified in Section 105.1 of the TRST-1000.

**Finding 7: WMATA does not have a weed spraying program consistent with industry standards.** WMATA did not implement a weed spraying program from 2015 to 2019. The APTA Standard for Rail Transit Track Inspection and Maintenance (APTA RT-FS-S-002-02) calls for scheduled weed spraying and vegetation cutting to prevent track structure damage. TRST reported that it formerly applied a chemical agent to the areas of vegetation; however, TRST further reported that in 2015 WMATA

### Findings and Required Corrective Actions

(continued)

prohibited the use of that chemical, and that TRST has not identified an acceptable alternative. Excessive vegetation growth, especially along narrow safety walks designed for employees, passengers, and first responders, can force individuals onto actively used tracks exposing them to an energized third rail and unnecessary hazard. Additionally, excessive vegetation can lead to debris in the system that results in poor track drainage and compromises track integrity.

**Corrective action:** TRST must conduct vegetation cutting and weed spraying using an acceptable chemical product.

Finding 8: WMATA has disseminated conflicting directions to TRST personnel about what procedures are appropriate for purposes of verifying speed restrictions. Metrorail imposes speed restrictions for a variety of reasons. For example, if a track defect is discovered requiring train movement at slower speeds, speed restrictions are instituted until repairs are made. TRST-1000 Section 100.5 states that "the person imposing the speed restriction must verify compliance." According to WMSC interviews of WMATA personnel, verifications are usually done by a track walker. WMATA Standard Operating Procedure (SOP) #30 states that a Roadway Worker in Charge (RWIC) or RTRA Supervisor shall verify that train speeds are correctly reduced 600 feet before the restricted area and 600 feet beyond the restricted area by boarding the first train to pass through the restricted area to verify the correct reduced speed. The limiting speed on the train console will then be verified for train speed accuracy. The RWIC or the RTRA Supervisor will notify the Rail Operations Control Center (ROCC) that the speed restriction is correct or that it needs modification. The safety concern is if one individual is not assigned this task, both individuals (the RWIC and the RTRA Supervisor) may assume the other has done it. Interviews determined that verification is sometimes done by radioing a Train Operator. SOP #30 Metrorail Safety Rules and Procedures Handbook (MSRPH) Section 30.5.1.11 states that it shall be done by riding a train. However, Section 5 of the MSRPH provides multiple potential methods for the RWIC to verify compliance, including checking with the ROCC or riding the train. A related open CAP, FTA-16-4-T6, requires WMATA to establish a clear process for imposing and removing speed restrictions. This existing CAP related primarily to the establishment of one document; the WMSC now opens this new finding to ensure that inconsistencies among all three documents are resolved.

**Corrective action:** RTRA 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).



Excessive vegetation can lead to debris in the system that results in poor track drainage and compromises track integrity. (continued)

Finding 9: 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. The TRST-1000 Vol. 1, section 102.11 contains forms that do not match current inspection and maintenance practices. In some cases, the needed forms are missing, and in other cases there are forms that are obsolete. Also, WMATA reported that the Track Defect Report form listed in Section 102.11 is no longer used. Updating the list of forms in Section 102.11 and including blank or example forms will help personnel to locate and use the appropriate form for each task.

**Corrective action:** 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.

Finding 10: TRST inspectors use outdated versions of the Secondary Yard Inspection Form guiding storage track inspections. The WMSC reviewed WMATA's yard inspection reports from 2018 and 2019. The WMSC discovered that WMATA employs at least three different versions of the same form for the same task. There were differences among the content of the forms. For example, one version of the form lists items that should be inspected, like track tie conditions; yet another version of the form makes no mention of track tie conditions. Using multiple versions of forms can result in newer requirements not being completed during inspections.

**Corrective action:** 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.

Finding 11: Quality control checks by TRST supervisors occur infrequently and inconsistently with TRST's protocols. TRST documents state that a minimum of four quality checks per month are required to be performed by TRST supervisors on work orders they are managing. These quality checks are designed to verify that the work has been completed in accordance with TRST track standards. WMATA provided records of mainline track inspection quality control spreadsheets, but 17 out of 20 were either completely blank or did not have four checks per month.

**Corrective action:** TRST must institute a step for regular management review of the Supervisor quality control checks to ensure they are being completed as required.



(continued)

Finding 12: WMATA cannot confirm whether new work orders are opened as a result of defects identified during TRST inspections. Corrective maintenance work orders corresponding to defects found during inspections are not noted on the inspection form or in the Failure Report field of Maximo for regularly scheduled inspections. TRST reported that supervisors are required to verify that new corrective maintenance (CM) work orders have been opened to correspond to defects listed on track inspection forms, but these supervisors cannot easily do this without already having a work order number. If TRST does not document new work order numbers along with the initiating defect, it cannot always confirm whether the defect was corrected.

Corrective action: TRST must require that a new work order number be noted on the hard-copy and/or electronic inspection form when a defect is referred for corrective maintenance. A field for the new work order number should be created on the inspection form.

### Finding 13: WMATA cannot verify that defects identified during

track geometry vehicle inspections are repaired. Defects identified by the Track Geometry Vehicle (TGV) and color-coded by severity in a spreadsheet did not appear to have documented resolutions. WMATA personnel reported that a maintenance crew is sent directly behind the TGV to immediately repair black-level (severe) defects but the maintenance crew does not necessarily document the repair. During the audit, the WMSC asked WMATA personnel to demonstrate the entry and resolution of red-level defects from TGV inspections in Maximo, but TRST could not present such records. Without logging and documenting the defects and repairs, WMATA is not able to track outstanding defects.

**Corrective action:** 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.

#### Finding 14: TRST lacks job-specific training for newly hired or

promoted supervisors. The most recent version of the TRST-2000, dated 2015, stated that, "TRST acknowledges that efforts should be considered and developed for the promoting of such a [training] program," but TRST could not demonstrate that the creation of a training program was accomplished. Job-specific training for duties new to supervisors will ensure that they complete those duties accurately, uniformly, and consistently.

Corrective action: WMATA must institute training for duties specific to TRST supervisors, including how to conduct and document guality control checks, ensuring assignment of work to gualified inspectors/equipment operators, and use of Maximo to prioritize and plan work.



Photo Courtesy WMATA

Findings and Required Corrective Actions

(continued)

Finding 15: WMATA does not have written training requirements for the various TRST positions, as required by the SSPP. The SSPP states that it is the responsibility of each department head or designee to prepare and update these requirements; however, TRST does not do so. TRST reported that Technical Skills and Maintenance Training (TSMT), a division within WMATA that handles technical training, is working to create these requirements. The lack of written training requirements makes if unclear for supervisors what training their personnel need versus what they have received.

**Corrective action:** TRST and TSMT must create written training requirements for each position and ensure that such requirements correspond with any course registration requirements through the electronic learning management system.

Finding 16: WMATA uses equipment operators to perform track repairer duties without first providing such personnel with formal training. When equipment operators are not working at such capacity, they often perform select track repairer duties. Equipment operators do not receive track repairer training. This can lead to equipment operators conducting those duties incompletely or inconsistently. Further, because supervisors cannot check employee qualifications without immediate Electronic Learning Management system access, they may inappropriately assign equipment operators to operate equipment or conduct track repair duties for which they are not qualified.

**Corrective action:** 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.



## Next Steps

Consistent with the WMSC Program Standard, WMATA is required to propose CAPs for each finding no later than 45 days after the date of this report. Each proposed CAP must include a specific and achievable planned action to remediate the deficiency, identify a person responsible, and provide an estimated date of completion. These proposed CAPs must be approved by the WMSC prior to implementation.

WMATA is required to propose CAPs for each finding no later than 45 days after the date of this report.







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