

Tri-State Oversight Committee



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DRPT

Pre-Revenue Service Review

of the Washington Metropolitan Area Transit Authority

Silver Line, Phase 1



Review Conducted: May 27 – 30, 2014

Final Report: July 25, 2014

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Introduction and Methodology

Representatives from the Maryland Department of Transportation (MDOT), the District of Columbia Department of Transportation (DDOT), and the Virginia Department of Rail and Public Transportation (DRPT) comprise the Tri-State Oversight Committee (TOC), which provides regular oversight of the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system in accordance with 49 Code of Federal Regulations Part 659. As part of the TOC's efforts to oversee the safety and security of the Metrorail system, and in accordance with best practices identified by the Federal Transit Administration (FTA), the TOC completed a Pre-Revenue Service Review of WMATA's Silver Line Phase 1 project.

The review, conducted from May 27-30, 2014, was primarily intended to ensure that the safety and security certification process, hazard mitigation, and operational and maintenance readiness has been completed for the new rail line, or that appropriate workarounds will be place in time for passenger service for unfinished items. The TOC's review focuses especially on whether the new rail transit project is ready to conduct revenue operations safely and securely. WMATA has not yet formally established the Revenue Operations Date (ROD). This review took place immediately after WMATA declared Operational Readiness and took control of the property, designed and built by the Metropolitan Washington Airports Authority (MWAA) and its contractor, Dulles Transit Partners (DTP). WMATA's Board of Directors will formally accept the project from MWAA at the end of the current pre-revenue phase, but before the ROD.

Preceding the on-site review, the TOC requested, received, and reviewed documents related to the Silver Line project. The TOC coordinated with the FTA Project Management Oversight Contractor (PMOC) to be part of this review in order to avoid potential duplication of efforts, and to ensure that the TOC and FTA are in agreement regarding the safety and security of the project and its readiness to operate. The TOC began the review with a kick-off meeting involving WMATA, PMOC, and MWAA personnel. TOC reviewers, accompanied by PMOC personnel, then spent the on-site time conducting interviews and field observations in the following areas: Safety and security certification, systems and maintenance of way, rail operations and training, readiness of new stations, and security and emergency preparedness. The TOC discussed notable open items and potential deficiencies with WMATA personnel during a close-out briefing that completed the on-site review.

One week after completion of the review, on June 6, the TOC issued an Interim Report so that WMATA could quickly take action. In this report, the TOC identified a series of Unfinished Items and Findings. Unfinished Items are tasks of which WMATA was already aware, were not complete, and/or were on track to be complete before revenue service. Findings are other safety-related issues that the TOC identified during the review. The narrative of each Finding and Unfinished Item describes what information is

needed for TOC to verify that each item has been addressed, as well as whether the TOC expects the item to be complete or have a workaround before the ROD.

Following the completion of the on-site PRSR activities, TOC identified two additional findings, MTC-10 and SEP-25. These findings are described in detail in the body of this report.

The TOC and WMATA completed multiple rounds of responses regarding the Findings and Unfinished Items in this report. All items were required to be rectified, completed, or have a temporary workaround in place before revenue service begins, unless otherwise noted in this report. WMATA also supplied documentation and records to verify some open items, while others necessitated TOC field reviews for verification before revenue service. The TOC tracked WMATA responses and actions until the revenue service date using the table in Appendix A. The TOC determined that some issues, following WMATA analysis of the hazard, will remain open beyond revenue service for long-term resolution. For these items, the TOC will continue to work with WMATA to ensure these issues are adequately addressed and to identify formal Corrective Action Plans (CAPs) in accordance with CAP requirements set forth in the TOC Program Standard and Procedures. Any items that remain open beyond the ROD will be tracked using the regular CAP process and associated database.

The TOC review team found that WMATA and MWAA personnel were very open and amenable to discussing new issues and potential hazards that reviewers identified. The TOC thanks WMATA and MWAA for their additional time and cooperation in order to facilitate the TOC to complete a successful review. The TOC also thanks its partners at the FTA and PMOC for coordinating a successful review. The TOC believes that its review identified areas of improvement that will reduce the potential for future incidents and support the WMATA's goals of safety and security of the Silver Line, Phase 1.

The TOC received and reviewed WMATA's Safety Verification Report and Security Certification memorandum and is transmitting a letter of concurrence to the FTA.

Safety and Security Certification Verification Process

The Safety and Security Certification (SSC) review covered the SSC processes and procedures that WMATA and MWAA followed during the design, construction, and testing phases of Phase 1 of the Silver Line. The SSC consists of two phases – one involving DTP’s SSC of the project, and one conducted by WMATA for its own deliverables listed in the Rail Activation Plan (RAP). The TOC review team interviewed WMATA and MWAA personnel about the SSC process for the Silver Line. The TOC team verified:

- the MWAA process for verification of Silver Line Phase 1 design-build contractor DTP’s SCILs and checklists
- WMATA verification of MWAA-accepted SCILs, and
- Integrated testing reports

Interviews also covered the tracking and documentation of rail activation activities to support WMATA’s operational readiness, as well as the status of open items and workarounds. Finally, the review team performed field verification of selected SCIL items in the Silver Line tunnels between Tysons Corner and Greensboro stations, some of the station facilities, and a segment from the elevated guideway at Spring Hill Station to the at-grade guideway at the Dulles International Airport Access Highway.

Verification of SSC of WMATA deliverables did not occur during this review, since WMATA deliverables including Art-in-Transit, Automated Fare Collection, the Rail Operations Control Center (ROCC) Upgrade, Signage and Graphics, and the WMATA Rail Activation SCIL, were either not yet complete or not yet certified. Please see also the “Unfinished Items” section below.

Findings

There are no Findings for this review area.

Unfinished Items

SSC-1: WMATA has yet to certify its deliverables, including Automated Fare Collection, Art-in-Transit, and the ROCC Upgrade. Once each of these items is certified, the TOC requests that WMATA submit copies of the certificates and Safety and Security Certification Final Reports for review. WMATA should certify the Automated Fare Collection and ROCC Upgrade deliverables prior to revenue service; the WMATA certification of Art-in-Transit may extend beyond the start of Silver Line revenue service.

Update: TOC received certificates for Automated Fare Collection and the ROCC Upgrade. The TOC determined that based on the available documentation, the Art-

in-Transit project is not yet complete, and the TOC will review its certification at a later time.

SSC-2: The upgrades to West Falls Church Yard were not yet complete at of the time of this review. If WMATA determines that any portion of the upgraded section of West Falls Church Yard is necessary for Silver Line revenue service, WMATA must, prior to revenue service commencing, either certify the portions of the upgrades necessary for revenue service or issue Temporary Use Notices (TUNs). The TOC requests that WMATA submit any associated certificates and Safety and Security Certification Final Reports or TUNs for portions of West Falls Church Yard that WMATA determines are necessary to support the start of Silver Line revenue service.

Update: WMATA received Temporary Use Notices. WMATA indicated on 7/25/14 that it has not yet issued final acceptance to MWAA. TOC determined that no further action is expected before ROD but that WMATA should forward its final acceptance within 60 days of opening.

SSC-3: SSC requirements have not yet been completed as described in Attachment 2, Item #2, of the April 24, 2014, WMATA-MWAA Memorandum of Understanding (MOU). Before revenue service, WMATA should submit for TOC verification a report, letter, or other documentation that confirms that the SSC requirements as described in Attachment 2, Item #2 of the April 24, 2014, WMATA-MWAA MOU were completed.

Update: WMATA submitted on 7/24/14 the MOU Attachment 2 tracking log which shows no items remaining except for transfer of assets to WMATA, for which verification documentation was submitted separately. Remaining open items from MOU Attachment 2 have been transferred to MOU Attachment 3 for completion beyond revenue service. The TOC will continue to monitor completion of the items in Attachment 3 beyond ROD.

SSC-4: The TOC requests that WMATA update the TOC weekly with the most recent revision of the Rail Activation CIL until revenue service begins.

Update: WMATA provided Rail Activation CIL updates, including a final version on 7/24/14. This item is closed.

Systems, Equipment, and Maintenance Readiness

The TOC reviewed WMATA's maintenance policies, plans, procedures, and inspection checklists for the integration of Silver Line track and structures (TRST), facilities (PLNT), signals and Automatic Train Control (ATC), power (POWR), communications (COMM), and elevator/escalator (ELES) infrastructure in preparation of revenue operation. The procurement of the 7000-Series railcars is not addressed as part of this report, but the overall availability of railcars is related to Silver Line operations as described later in this section.

The TOC conducted interviews with managers in all of the maintenance areas listed above, reviewed documentation on procedures and training, and conducted field observations of Silver Line assets.

Findings

MTC-1: Some ETS boxes are directly behind the third rail and third rail feeder cable boots. One such location is inside the wayside emergency access gate on track 1 at chain marker 1079+54, just west of Wiehle-Reston East Station. The TOC understands that an insulated cover board with a heavier gauge was installed at these locations, and that the Office of Emergency Management advised responders of this hazard during training. However it does not appear safe to stand and use the ETS box at this location without coming in close contact with the power supply. This can be a hazardous condition for WMATA maintainers and emergency responders required to access the wayside to remove power.

Recommended Action: WMATA should assess whether this issue exists at other locations as well. A possible solution would be relocating these particular ETS boxes, which would likely not occur before revenue service; in that case, WMATA should consider a workaround until the resolution occurs. Before revenue service begins, WMATA should provide documentation of locations where this hazard exists and its planned workaround (and potentially a CAP to be monitored after revenue service begins); if the hazard is fully mitigated, the TOC will conduct field verification before revenue service begins.

Update: WMATA previously installed Class A coverboard at these locations for added protection, submitted a hazard analysis related to the issue (received on 7/22/14), and submitted Temporary Order T-14-15 that makes personnel aware of the situation (received on 7/23/14). No further action is expected before ROD. However, TOC will continue to follow up with WMATA on this issue after ROD. TOC will work with WMATA after ROD to develop CAP information to cover long-term action.

MTC-2: An Emergency Trip Station (ETS) box test call resulted in being connected to a Controller with limited information. Although some ETS boxes rang but did not connect to ROCC at the time of this review (see the Unfinished Item SSC-4 below), the call boxes did connect on the second day of field verification. However, a Controller was unable to determine the exact location of the call box by looking at the Controller's console; the Controller could only tell that it was on Track 1 of the N-Line (Silver Line).

Recommended Action: Prior to the start of Silver Line revenue service, WMATA should ensure that ROCC consoles display the exact location when a call is initiated from an Silver Line ETS call box. The TOC requests as verification a test report indicating that all ETS call boxes on the N-Line have been tested, successfully connect to the ROCC, and allow Controllers to see the exact location of the ETS box activated.

Update: WMATA completed ETS phone testing and submitted a verification report on 7/18/14. TOC field verification conducted on 7/22/14 demonstrated that Controllers were able to see the ETS phone location activated, but it is not visible while the Controller is talking with the caller. No further action is expected before ROD. However, TOC will continue to follow up with WMATA on this issue after ROD. TOC will work with WMATA after ROD to develop CAP information to cover long-term action. WMATA should create a practical and fail-safe procedure that allows a Controller to easily determine the chain marker/track location throughout the duration of a call placed from an ETS call box.

[REDACTED]

[REDACTED]

[REDACTED]

MTC-4: Water was seeping into both tunnels onto the raised walkways between Spring Hill and Greensboro stations at the cross-bonding cable near CM 714+00, creating a possible slip/fall hazard for workers. The leak is not an immediate hazard but will create one over time due to icing and mineral deposits.

Recommended Action: WMATA should mitigate the seepage to prevent a slipping condition on the walkways. This may be done via drainage or diversion of the seepage, if not elimination of the seepage. If this issue cannot be fully remedied before revenue service, the TOC requests a Corrective Action Plan that the TOC can monitor and will ultimately result in a report or memorandum documenting the slip hazard has been mitigated.

Update: On 7/25, WMATA submitted information stating that the noted seepage does not exceed design tolerances. No further action is expected before ROD. However, TOC will continue to follow up with WMATA on this issue after ROD. TOC will work with WMATA after ROD to develop CAP information to cover long-term action.

MTC-5: An eyewash station at TPSS 10 does not have an inspection tag or drainage capability, and a nearby outlet did not have a ground fault circuit interrupter (GFCI)

Recommended Action: Add an inspection tag, install a drain, and ensure the outlet has GFCI at this location before revenue service, or implement a workaround. Provide photographic and/or documentary evidence of completion to the TOC.

Update: TOC received photographic evidence of the inspection tag and the sample eye wash station installation as well as specifications for the new eye wash dispenser and receptacle. No further action is expected before ROD. However, TOC will continue to follow up with WMATA on this issue after ROD to develop CAP information to cover eyewash containment installation.

Unfinished Items

MTC-6: POWR, PLNT, ATC, and COMM have to complete various system inspections and testing before revenue operations. The WMATA requirements for system inspections and testing prior to revenue operations is defined in the WMATA Silver Line RAP, Revision 5, Appendix E. WMATA should keep the TOC up-to-date with final inspection and testing as defined in the checklist on page 42 of RAP Appendix E. Any item that is listed as incomplete should have a “work around plan” prior to revenue operations.

Update: Item 1 in MOU Attachment 2, which includes punchlist items, has been carried over into MOU Attachment 3 for completion beyond revenue service. No further action is necessary before ROD. However, TOC will continue to follow up

with WMATA on this issue after ROD to develop CAP information to cover completion of this action.

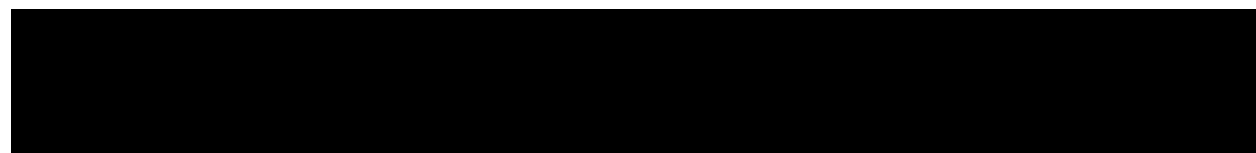
MTC-7: Not all stations have received a certificate of occupancy by the authority having jurisdiction (AHJ). The AHJ, the Fairfax County Department of Governmental Services (DGS), directed MWAA to update station communications systems to remain compliant with current National Fire Protection Association (NFPA) 130 transit system communication requirements. DTP contractors were at various stages of updating station emergency communications systems mandated by the DGS. The TOC requests progress reports of station communications compliance testing as defined in the WMATA Silver Line Rail Activation Plan, Revision 5, Appendix E. Any item that is listed as incomplete should have a work-around prior to revenue operations.

Update: As of 7/22, DGS has issued Certificates of Occupancy for all facilities; three stations have conditional certificates. WMATA submitted these certificates to the TOC. No further action is expected before ROD. WMATA should provide the remaining final Certificates of Occupancy after ROD as they become available.

MTC-8: The most recent Fleet Management Plan (FMP) available does not account for current railcar availability and the Silver Line terminus of Largo. The most recent railcar information available to TOC is contained in Fleet Management Plan (FMP) Revision 4G dated August 2012. The FMP describes a plan for allocating the existing WMATA car fleet for service and maintenance to operate the entire Metro system, including the Silver Line, prior to the delivery of 7000-series railcars. The FMP indicates that car service demand would be met through a reduction in 8-car trains, a reduction in cars assigned to gap trains, and a reduction in cars allocated for scheduled and unscheduled maintenance. This version of the FMP requires 900 cars for peak service. In 2011, 860 cars were required for peak service; this is in addition to 244 cars allocated for maintenance, accounting for the fleet of 1,104 operable cars.

However, the service plan for the FMP is based on a Silver Line terminus at Stadium-Armory rather than Largo. Car shortages have the potential to create safety hazards through service disruptions and overcrowding conditions on trains and station platforms. TOC requests that WMATA provide updated information on the number of operable cars, cars required for service, and cars allocated for maintenance. The impact on meeting car maintenance requirements, as result of the reduction in cars to be allocated for maintenance, is also a concern. TOC requests a revised FMP or service plan containing this information, to be provided prior to the start of revenue service.

Update: The FTA issued a letter of approval of the FMP, and WMATA submitted it to the TOC on 6/27/14. This item is closed.






Finding Issued after PRSR

MTC-10: In locations where ETS boxes are installed alongside amber light boxes, protruding equipment forces personnel to pass on the right-of-way beside the third rail rather than on the safety walk. TOC observed this condition during a 6/29 emergency drill. The Chief Safety Officer and Board Director were present and appeared to agree about the presence of this hazard.

Recommended Action: WMATA should expedite an assessment of the configuration and placement of ETS boxes relative to safety walks, the amber light devices, and the third rail to ensure that personnel can traverse these areas safely and operate the ETS boxes safely. WMATA should ensure that there is a safe workaround in place prior to the ROD. WMATA also should consider such areas as “no clearance” zones or as “hot spots” along the ROW necessitating additional levels of safety until a more permanent solution is implemented, including but not limited to moving the ETS boxes locations away from the aforementioned obstacles.

Update: WMATA submitted a hazard analysis regarding this issue on 7/22/14. No further action is expected before ROD. However, TOC will continue to follow up with WMATA on this issue after ROD. TOC will work with WMATA after ROD to develop CAP information to cover long-term action.

Security and Emergency Preparedness

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Stations Readiness

This review involved field observations of all Silver Line areas that will be accessible to the public, including stations, pedestrian bridges, and pavilions. TOC assessed the status of completion for stations elements as well as whether any potentially hazardous conditions existed. Stations maintenance is covered separately under the Systems and Equipment Maintenance Readiness section, and specific fire/life safety issues are covered separately under the Security and Emergency Preparedness section.

Findings

[REDACTED]

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STA-5: At McLean and Tysons Corner stations, the rubber covering one expansion joint on each pedestrian bridge was not cut down to be flush with the walkway. At Wiehle-Reston East, the rubber was about an inch below grade. Both situations present a potential trip hazard.

Recommended Action: WMATA should ensure the material covering the joints is flush with the walkway. TOC will verify completion via field observation before revenue service begins.

Update: TOC conducted field observations on 7/22/14 and 7/25/14 verifying that WMATA covered the uneven surface. This item is closed.

STA-6: At Tysons Corner, there were four lights out in the stairwell between the platform and mezzanine. TOC was informed that a circuit breaker was shut off, causing these lights to go out.

Recommended Action: WMATA should ensure that extinguishing these lights is not a regular occurrence. Please provide a brief memo explaining the resolution to this item and confirming that these lights will not go out during revenue service, before revenue service begins.

Update: Field observations on 7/22/14 verified that all lights were illuminated in stairwell from the pavilion to the mezzanine in Tysons Corner Station. This item is closed.

STA-7: The Communications Room door at the Tysons Corner end of the platform was propped open with a fire extinguisher, and the room was hot. It was unclear whether the ventilation in this room was working, and if that was the cause for the door to be open.

Recommended Action: Ensure that the ventilation in this room is functioning. Please provide a brief memo explaining the resolution to this item and confirming that the ventilation is functioning before revenue service begins.

Update: Field observations on 7/25/14 verified that the door was closed and locked. A portable air conditioning unit found outside, possibly to address climate control issues. This item was also on the contractor punchlist under MOU Attachment 2 Item 1, which has been moved to Attachment 3 for action after ROD. No further action is expected before ROD. However, TOC will work with WMATA after ROD to develop CAP information to cover cooling of the room.

Unfinished Items

STA-8: Electrical and speaker work at Wiehle-Reston East was not complete; wires were dangling from the ceilings. TOC understands that many punch list items related to speakers remain. TOC will verify that no extraneous wiring remains and that speakers are functional via field observations before revenue service begins.

Update: Field observations on 7/22/14 verified that at all stations, there were no wires dangling from station ceilings, and public address announcements were audible. This item is closed.



Rail Operations and Training

This portion of the review covers WMATA's preparations for rail operations service delivery and associated training and familiarization for affected employees. This primarily pertains to the managers, supervisors, front-line employees (Train Operators and Station Managers), and Controllers within the Rail Transportation (RTRA) department at WMATA. More specifically, this review covered:

- The review, revision, and promulgation of operating rules and procedures with regard to the Silver Line
- Operations during the pre-revenue period (between the Operational Readiness Date and the Revenue Operations Date)
- Training and familiarization of ROCC Controllers, Field and Terminal Supervisors, Train Operators, and Station Managers

Findings

OPS-1: WMATA did not yet have plans to provide familiarization or training on the unique physical and operational characteristics of the Silver Line to Supervisors, Train Operators, or Station Managers except those who will be initially assigned there. WMATA has developed familiarization programs for Field and Terminal Supervisors, Train Operators, and Station Managers. At the time of this review, WMATA planned to complete familiarization for Supervisors prior to the start of the six-day pre-revenue service period, and to complete familiarization for Train Operators and Station Managers during the six-day pre-revenue service period. As described to the TOC, the familiarization program will, respectively, introduce these categories of employees to the physical and operational characteristics of the Silver Line. The TOC believes that such familiarization is critical to ensuring that relevant employees have sufficient knowledge and understanding of the physical and operational environment in which they will be performing their safety-critical work.

The TOC understands that operations on the Silver Line will be similar to the rest of the Metrorail system. However, there is safety-critical importance in the knowledge and understanding of the unique physical and operational characteristics that familiarization is meant to provide, such as the location of signals, interlockings, and emergency exits. Therefore, the TOC believes that all Supervisors, Train Operators, and Station Managers – not just those who will be initially assigned to work on the Silver Line – should receive this familiarization.

Recommended Action: WMATA should provide TOC with a plan and schedule to provide Silver Line familiarization to all Supervisors, Train Operators, and Station Managers. As part of this plan, WMATA should ensure that only those employees who have received the familiarization may be assigned to work on the Silver Line. Though it is not necessary for familiarization to be completed prior to revenue

service except for those employees initially assigned to the Silver Line, WMATA should provide the overall plan to TOC prior to revenue service.

Update: WMATA reported that all Station Managers and Train Operators not initially assigned to the Silver Line will receive the same level of Silver Line familiarization training during their recertification. New hires will receive the same level of familiarization training during their initial training. TOC will assess Silver Line familiarization for the remaining personnel during its future Triennial Review of operations training. This item is closed.

OPS-2: Rail Transportation and Training personnel interviewed did not have the most current version of the Rail Activation Plan. It is important that RTRA and other departmental managers working to ensure the safe startup of the Silver Line are provided with the most up to date project documentation, whether through regular Rail Activation Meetings or some other method.

Recommended Action: WMATA should ensure that RTRA and Training managers receive the most current project documents, and provide verification of WMATA's process to do so (via meeting minutes, or a copy of an e-mail distribution) prior to revenue service.

Update: During a follow-up review on 7/21/14, WMATA staff showed e-mail evidence that they were in receipt of the most up-to-date Rail Activation Plan and rail activation checklist. This item is closed.

Unfinished Items

OPS-3: WMATA had not yet completed all field familiarization for Train Operators or Station Managers who will be initially assigned to the Silver Line through the union pick process. At the time of this review, WMATA planned to conduct familiarization activities during the six-day simulated service period, which will commence after the completion of the pick process. TOC will observe familiarization training for Train Operators during the six-day pre-revenue period, and will verify the completion of the familiarization for both Train Operators and Station Managers through a records review prior to revenue service.

Update: WMATA provided training rosters, logs, and completed checklists on 7/23/14, and Operator manifests on 7/25/14, showing completion of required familiarization. The TOC will have an opportunity to assess regular completion of training checklists and records during its next Triennial Review of operations training. This item is closed.

OPS-4: WMATA had not yet completed all field familiarization tours for ROCC Controllers, Road Supervisors, or Terminal Supervisors who will be initially assigned to the Silver Line. According to the Rail Activation Plan, WMATA will complete these tours prior to the start of the six-day simulated service period, but this

has not yet been scheduled. TOC will verify the completion of the familiarization tours for Controllers and Supervisors through a records review prior to the start of the simulated service period.

Update: WMATA electronically provided all training rosters and logs on 7/23/14, and responded to TOC questions about discrepancies on 7/25/14. This item is closed.

OPS-5: WMATA had not yet developed the written knowledge check sheet to be completed by a Training Instructor for each Train Operator initially assigned to the Silver Line. TOC will verify the development of this check sheet, and its completion for each assigned Train Operator, prior to revenue service.

Update: WMATA electronically provided all training rosters, logs, and completed knowledge checklists on 7/23/14, and responded to TOC questions about discrepancies on 7/25/14. The TOC will have an opportunity to assess regular completion of training checklists and records during its next Triennial Review of operations training. This item is closed.

OPS-6: WMATA has developed written procedures for maintenance crews to access various systems, facilities, and equipment along the Silver Line alignment; however, these procedures had not yet been promulgated to Maintenance Operations Control (MOC) managers. It is important that MOC staff be familiarized with the systems, facilities, and equipment along the new Silver Line alignment, as well as the procedures for correctly and safely accessing them. WMATA should ensure all relevant procedures are made available to MOC staff. TOC will verify that these procedures are in the possession of MOC staff prior to the start of revenue service.

Update: MOC controllers have completed their familiarization, verified through rosters provided 7/23/14. On 7/25/14 WMATA provided the ROCC Silver Line ORD Playbook which contains the pertinent information about Silver Line systems, facilities, and equipment relevant to the MOC, including phone numbers, addresses, and key personnel. This item is closed.

OPS-7: Station kiosks and the Wiehle-Reston East Terminal are not yet stocked with employee manuals, station inspection checklists, first aid kits, Automatic Electric Defibrillators, and other materials. WMATA has already been packaging this equipment and drafting the checklists, and plans to add the material to the field locations during the last week before revenue service. These items are listed in the Rail Activation Plan for RTRA completion. TOC will verify that the necessary materials have been added via field observations during the last week of pre-revenue service.

Update: TOC conducted multiple rounds of field observations through 7/25/14, at which point it was verified that station kiosks were stocked with blank Station Conditions Checklists and all other noted materials. FIA microphones were labeled

at all 5 N-Line stations; PA microphones were not labeled, but they are similar to those in the rest of the existing Metrorail system. This item is closed.

OPS-8: There are numerous remaining open items on the Rail Transportation portion of the Rail Activation Checklist. WMATA should provide documentation showing the completion of the remaining open items prior to revenue service.

Update: The TOC has reviewed the Rail Activation Checklist items, which will be complete upon the conclusion of simulated service. This item is closed.