IMPROVE
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September 30, 2019

QICO 2019
CYQ2 & Q3 REVIEWS

Washington Metropolitan Area Transit Authority
WMATA

Service Delivery

6. *Bus Operations Communications Center*
7. *Metrorail Stations' ADA Compliance*

Capital Programs

8. *Escalator Replacement Project*

Safety Review

9. *Drug and Alcohol Policy and Testing Program*

M metro

Quality Assurance, Internal Compliance & Oversight (QICO)
Promoting Transparency, Accountability and Public Confidence

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Quality Assurance, Internal Compliance & Oversight (QICO)
Promoting Transparency, Accountability, & Public Confidence

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WHAT WE DO

What is QICO:

The Office of Quality Assurance, Internal Compliance & Oversight (QICO) is an internal management function that partners with other departments to provide an objective review. QICO and the internal review process are authorized by the General Manager as outlined in the Quality Management System Plan (QMSP).

Why QICO Performed These Reviews?

These internal reviews are intended to provide Metro senior management with an assessment of the following areas:

- Bus Operations Communication Center
- Metrorail Stations Americans with Disabilities Act Compliance
- Escalator Replacement Project
- Drug and Alcohol Policy and Testing Program

QICO's Methodology:

- Develop relevant review activities by identifying and assessing risks to policies, procedures & standards, quality & compliance, and traceability.
- Review documentation, observe processes and interview key personnel.
- Rate findings and required actions based on level of risk, which ranges on a scale from "Insignificant" to "High".

WHAT WE FOUND | CYQ2/Q3 INTERNAL REVIEWS   *Oct 2019*

Service Delivery

6. Bus Operations Communication Center

Wins:
- ✓ BOCC satisfied all requirements pertaining to the 2015 FTA CAPs.
- ✓ Adequate adherence to established policies and procedures.

Action Areas Identified During Review:
- Establishment of a formal quality control plan is essential for monitoring and improving BOCC activities.
- A defined certification program promotes proper skills management.

7. Metrorail Stations Americans with Disabilities Act Compliance

Wins:
- ✓ Rail station compliance with accessibility requirements promotes safe and reliable service delivery.

Action Areas Identified During Review:
- Effective maintenance of platform edge lighting is important to maintain reliable indication of platform edges and approaching trains at stations.

Capital Program

8. Escalator Replacement Project

Wins:
- ✓ ELES has documented Lessons Learned which will help ensure the improvement of future ELES Rehabilitation projects.
- ✓ ELES has effectively utilized plywood partitions to isolate the working zones which ensures a safe work environment.
- ✓ In addition to the technical certifications, ELES inspectors have manuals on-hand to ensure consistency and compliance with standards.

Safety

9. Drug and Alcohol Policy and Testing program

Wins:
- ✓ Full compliance with the Department of Transportation (DOT)/Federal Transit Administration (FTA) requirements set forth in 49 CFR parts 40 and 655.

Note: An itemized internal Corrective and Preventive Action (iCAPA) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of iCAPA implementation go to: wmata.com/initiatives/transparency/

WHAT WE WILL DO MOVING FORWARD

Key Takeaways

6. *A robust quality control plan is essential to monitor and improve BOCC operations.*
- Develop a Quality Control Plan (QCP) and a controlled curriculum that encompasses all training aspects for BOCC to promote consistent department performance.
- For details on committed action plans see the following iCAPAs: QICO-BOCC-19-01 and QICO-BOCC-19-02.

7. *Identification and completion of required maintenance pertaining to ADA related assets at rail station facilities is necessary to continuously facilitate quality and safe service.*
- Assess state of platform edge light elements system-wide and prioritize repairs to ensure stations with malfunctions are addressed in a timely fashion.
- For details on committed action plans see the following iCAPAs: QICO-ADA-17-01, QICO-ADA-17-02, and QICO-ADA-18-01.

Key Takeaways

8. *Documented Lessons Learned promotes the utilization of project best practices towards the success of future projects.*

Key Takeaways

9. *WMATA's Drug and Alcohol Program incorporates proactive compliance measures to ensure federal testing parameters are met.*

Internal Review: Service Delivery

(6) Bus Operations Communication Center

June 7, 2019

Quality Assurance, Internal Compliance & Oversight (QICO)

Promoting Transparency, Accountability, & Public Confidence

ENGINEERING &
MAINTENANCE

SERVICE
DELIVERY

CAPITAL PROGRAM –
MANAGEMENT
& EXECUTION

INTERNAL SAFETY
REVIEW

What is QICO?

- The Office of Quality Assurance, Internal Compliance & Oversight (QICO) is an internal management function that partners with other departments to provide an objective review. QICO and the interview process are authorized by the General Manager as outlined in the Quality Management System Plan (QMSP).

Why QICO Performed This Review:

- This internal review is intended to provide Metro senior management with an assessment of the state of Bus Operations Communication Center process and promote the actions needed to address any concerns.

QICO's Methodology:

- Develop relevant review activities by identifying and assessing any risks to policies, procedures & standards, quality & compliance, and traceability.
- Review documentation, observe processes, and interview key personnel.
- Rate findings and required actions based on severity of risk, which ranges on a scale from "Insignificant" to "High".

INTERNAL REVIEW SUMMARY   June 2019

(6) Bus Operations Communication Center

Key Takeaway:
A robust quality control plan is important to monitor and improve BOCC operations.

Wins:
- ✓ BOCC satisfied all requirements pertaining to the 2015 FTA CAPs.
- ✓ Adequate adherence to established policies and procedures.

Areas for Improvement:
- Establishment of a formal quality control plan is important for monitoring and improving BOCC activities.
- A defined certification and training program promotes proper skills management.

Required Actions:
- QICO-BOCC-19-01: Develop a Quality Control Plan (QCP) for BOCC to promote consistent department performance. (Overall Risk – Moderate)
- QICO-BOCC-19-02: Create a controlled curriculum that encompasses all training aspects of BOCC. (Overall Risk – Low)

Note: An itemized internal Corrective and Preventive Action (iCAPA) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of iCAPA implementation go to https://www.wmata.com/initiatives/transparency/

6.1. FUNCTIONAL OVERVIEW AND STRUCTURE

Bus Operations Communication Center (BOCC)

WMATA's Metrobus service provides 121 million trips annually, serving over 10,000 bus stops in the District of Columbia, Maryland, and Virginia. As the sixth largest bus network in the United States, Metrobus operates over 1,600 buses integrated with six Metrorail lines. To coordinate this vast network of bus routes, the BOCC maintains 24-hour communication with Bus Operators, Transit Field Supervisors, local emergency resources, and internal WMATA branches such as the Rail Operations Control Center (ROCC) and Metrobus Maintenance (BMNT).

BOCC monitors, directs, and identifies the need for responsive personnel to assist with the day-to-day operations of buses while committing to the safety of all customers. Coordination of tasks such as route management, inclement weather adjustments, Bus Operator assaults, mechanical trouble, and Metrorail service interruptions are handled by BOCC Specialists.

Organizational Structure and Background

Within WMATA, the BOCC reports to the department of Bus Transportation (BTRA), which in turn reports to the Senior Vice President, Bus (BUS). As shown in the organization chart, QICO is independent of this function, reporting to the General Manager through Internal Compliance (INCP). The scope of this internal review is to assess areas for improvement within the Bus Operations Communication Center.
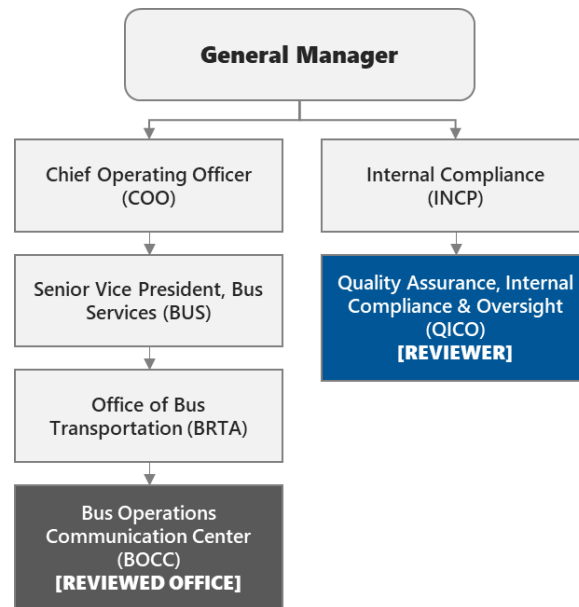
6.2. REVIEW SCOPE

Documentation Review

- BOCC Manual Rev. 3, dated 11/1/2018
- Complete BOCC employee list
- BOCC Specialist training overview (uncontrolled)
- Completed Specialist Performance Evaluations (January 2019 – March 2019)
- Event Summary Forms (04/08/19-04/12/19)
- Request for Elevator Service sheets (March 2019)
- Specialist Audio Recordings:
  - ███████████████████
  - ███████████████
  - ████████████████
- Bus Operating Procedure #1 Pre-Trip Inspection (02/10/16)
- Standard Operating Procedure (SOP) #23 Ver. 1.0 Bus Communications Equipment
- Notice to Operators (NTO) #09-33 (06/19/09)
- NTO #19-14 (05/17/19)
- Applicable Corrective Action Plans (CAPs):
  - Federal Transit Administration (FTA)-BUS-2-2-a
  - FTA-BUS-2-3-a
  - FTA-BUS-3-6-a
  - FTA-BUS-5-9-a
  - American Public Transportation Association (APTA)-17-02
  - APTA-17-05
  - APTA-17-15

Personnel Discussions

- BOCC Service Director
- BOCC Superintendent
- BOCC Specialists

6.3. WHAT WORKED WELL (WINS)

Wins are categorized by <u>Quality Measures</u> and rated according to <u>Risk Assessment</u>

W-BOCC-19-01   Quality & Compliance   Reduces Service Delivery Risk   **Owner – BOCC**

✓   **BOCC satisfied all requirements pertaining to the 2015 FTA CAPs.**

Discussion

- QICO found that all concerns identified by the FTA Safety Management Inspection (SMI) dated June 17, 2015 have been addressed.
- This included the creation of a comprehensive BOCC manual, refresher training program, and establishment of a BOCC analyst, now under the Office of Operations Budget, Performance and Planning (OBPP).

W-BOCC-19-02   Quality & Compliance   Reduces Service Delivery Risk   **Owner – BOCC**

✓   **Adequate adherence to established policies and procedures.**

Discussion

- Throughout the course of the internal review, QICO found full adherence to existing BOCC procedures.
- QICO performed three field visits covering all three shifts, document reviews, and conducted interviews with BOCC management and Specialists. This included monitoring BOCC Specialist adherence to established procedures such as ensuring buses were stopped and secure before establishing communication, properly handling incoming incidents, call response times, etc.
- QICO utilized compliance checklists derived from the BOCC Manual Rev. 3, dated 11/01/18* in confirming adherence to policies and procedures.

*The BOCC Manual is a comprehensive document containing details on all BOCC business practices, procedures, and functions.

6.4. AREAS FOR IMPROVEMENT

Findings are categorized by Quality Measures and rated according to Risk Assessment

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F-BOCC-19-01   Policies, Procedures, & Standards   Moderate – **Risk (3,3)** 🟨   **Owner – BOCC**

- **Establishment of a formal quality control plan is important for monitoring and improving BOCC activities.**

Discussion

- Through discussions with key personnel and document reviews, QICO found that BOCC does not employ a formalized quality control plan to monitor compliance and take appropriate actions.
- While BOCC provided a BOCC Communication Quality Control Checklist for general Specialist activities (clear communication, spelling errors, etc.), there is no formal plan governing the administering of checks such as these.
- A quality control plan would allow BOCC to monitor call response times, analyze resources, better direct training, and reveal opportunities for improvement for both internal customers at WMATA as well as the riding public.
- With incoming phone and radio calls being the primary task of Specialists, actively monitoring response times to these calls will ensure that BOCC is meeting its established goals.

F-BOCC-19-02   Policies, Procedures, & Standards   Low – **Risk (3,2)** 🟩   **Owner – BOCC**

- **A defined certification and training program promotes proper skills management.**

Discussion

- A training outline was provided consisting of:
  - Street Operations
  - Division Operations
  - BOCC Operations
  - Two-day Specialist Refresher Training

  However, BOCC currently does not have a documented training curriculum.
- A documented training curriculum would allow for continuous skills management to maintain employee competency.
- BOCC has an internally managed training and refresher program conducted by Assistant Superintendents.
- An internal refresher program is administered annually to BOCC Specialists and tracked via ▓▓▓▓ Enterprise Learning Management (ELM). This includes seven modules covering CleverCAD, the BOCC Manual, bus troubleshooting, severe weather, and other critical functions to BOCC's operation.
- While BOCC training and refresher programs are in-place, an independent training program would provide confidence that the operation's needs would not supersede future training or certification requirements. Independent training programs in which separate reporting structure exists to maintain autonomy is a long-standing practice in other WMATA departments. Although not the case for BOCC, its Metrorail counterpart, Rail Operations Control Center (ROCC), currently has all training and certification conducted independently by dedicated ROCC instructors within Rail Operations Quality Training (ROQT). It should be noted that while independent training is viewed as a best-practice, at no point did QICO observe BOCC training requirements placed secondary to day-to-day operations.
- As part of BOCC on-the-job training (OJT), new Specialists review the BOCC Manual with Assistant Superintendents, as well as shadow experienced Specialists as they perform regular duties.
- Currently, there are no formal requirements for on-the-job training (OJT).
- To maintain consistency, OJT should be formalized in terms of structure and associated documentation including:
  - Specific elements to be covered
  - Method of delivery
  - Required competency of the employee delivering the OJT
  - Pass/fail criteria

6.5. SUMMARY OF REQUIRED ACTIONS

QICO-BOCC-19-01	Action Owner – BOCC	Overall Risk – Moderate (3,3)	🟨

Required Action: Develop a Quality Control Plan (QCP) for BOCC to promote consistent department performance.

Applicable Findings

- F-BOCC-19-01: A formal quality control plan is essential to monitoring and improving BOCC activities.
  - o **Measure:** Quality & Compliance **Risk:** Service Delivery – Risk Rating (3,3)

QICO-BOCC-19-02	Action Owner – BOCC	Overall Risk – Low (3,2)	🟩

Required Action: Create a controlled curriculum that encompasses all training aspects of BOCC.

Applicable Findings

- F-BOCC-19-02: A defined certification and training program promotes proper skills management.
  - o **Measure:** Quality & Compliance **Risk:** Service Delivery – Risk Rating (3,2)

Internal Corrective and Preventive Actions (iCAPAs) are designated to address each Required Action listed above.

Washington Metropolitan Area Transit Authority
INTERNAL REVIEW 2019

Internal Review: Service Delivery

(7) Metrorail Stations Americans with Disabilities Act Compliance
(Part 3 of 3)

September 27, 2019

Quality Assurance, Internal Compliance & Oversight (QICO)
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INTERNAL SAFETY
REVIEW

What is QICO?

- The Office of Quality Assurance, Internal Compliance & Oversight (QICO) is an internal management function that partners with other departments to provide an objective review. QICO and the internal review process are authorized by the General Manager as outlined in the Quality Management System Plan (QMSP).

Why QICO Performed This Review:

- This internal review is intended to provide Metro senior management with an assessment of the state of Metrorail Stations compliance with the Americans with Disabilities Act (ADA) and promote the actions needed to address any concerns. This is the final review of a three (3) year assessment covering 33 Metrorail stations.

QICO's Methodology:

- Develop relevant review activities by identifying and assessing any risks to policies, procedures & standards, quality & compliance, and traceability.
- Review documentation, observe processes, and interview key personnel.
- Rate findings and required actions based on severity of risk, which ranges on a scale from "Insignificant" to "High".

INTERNAL REVIEW SUMMARY   September 2019

(7) Metrorail Stations Americans with Disabilities Act (ADA) Compliance (Part 3 of 3)

Key Takeaway:
Identification and completion of required maintenance pertaining to ADA related assets at rail station facilities is necessary to continuously facilitate quality and safe service.

Wins:

✔ Rail station compliance with accessibility requirements promotes safe and reliable service delivery.

Area for Improvement:

- Effective maintenance of platform edge lighting is important to maintain reliable indication of platform edges and approaching trains at stations.

Required Actions*:

- iCAPA, **QICO-ADA-18-01** associated with Part 2 of the Metrorail Stations ADA Compliance Internal Review, encompasses the area of improvement identified during this assessment. Closure of the mentioned iCAPA will satisfy the area of improvement.

*Additional iCAPAs have been developed based on the results from **Part 1** and **Part 2** of the Internal Review. See Section 9.6 for more details.*

Note: An itemized internal Corrective and Preventive Action (iCAPA) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of iCAPA implementation go to https://www.wmata.com/initiatives/transparency/

7.1. FUNCTIONAL OVERVIEW AND STRUCTURE

Metrorail Stations Americans with Disabilities Act (ADA) Compliance

The Americans with Disabilities Act (ADA) requires transportation entities to make reasonable modifications and/or accommodations to policies, practices, and procedures to avoid discrimination while ensuring their programs are accessible to individuals with disabilities. As a public transit service provider, Metro is required to comply with ADA standards, which contain service-related requirements for transportation facilities, acquisition of accessible vehicles, and paratransit as a complement to fixed route service and more.

Improving accessibility for all riders, including those within the ADA community, is a key part of continuously improving the area's metro in respect to regional mobility. Metro's Office of Quality Assurance, Internal Compliance & Oversight (QICO) is performing a three-part ADA compliance assessment of Metrorail stations. This is a self-assessment intended to evaluate Metro's compliance with applicable ADA standards for transportation facilities, as set forth in the Federal Department of Transportation's (USDOT) "ADA Standards for Transportation Facilities".

This is the third installment of a multiyear series that began in 2017 and included documentation review of all pertinent departments' policies and procedures related to ADA compliance, reviews of reference documents and specifications from external sources such as USDOT and Federal Transit Administration (FTA), interviews with responsible department personnel, and on-site surveys of rail station facilities. The infographic below shows the number of station assessed per year:
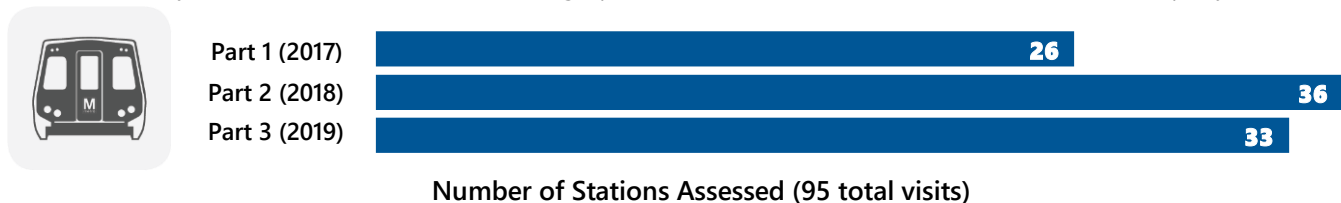
Part 1 (2017)	26
Part 2 (2018)	36
Part 3 (2019)	33

Number of Stations Assessed (95 total visits)

Organizational Structure and Background

Within WMATA, the Department of Access Services (ACCS) reports to the Chief Operating Officer (COO). As shown in the organizational chart, QICO is independent of this function, reporting to the General Manager through Internal Compliance (INCP).

The office of ADA Policy and Planning (ADAP) promotes the accessibility of Metrobus and Metrorail by working to obtain and maintain ADA compliant facilities, equipment, operating procedures, and training. These activities include routinely inspecting assets, coordinating and providing technical support for other departments, interfacing with the FTA, and supporting the ADA Reasonable Accommodation Panel and the Accessibility Advisory Committee.

Additional responsibilities include facilitating outreach, providing travel training, and coordinating Metro activities with the disability community and stakeholders.

General Manager
- Chief Operating Officer (COO)
  - Department of Access Services (ACCS)
    - ADA Policy and Planning (ADAP) **[REVIEWED OFFICE]**
- Internal Compliance (INCP)
  - Quality Assurance, Internal Compliance & Oversight (QICO) **[REVIEWER]**
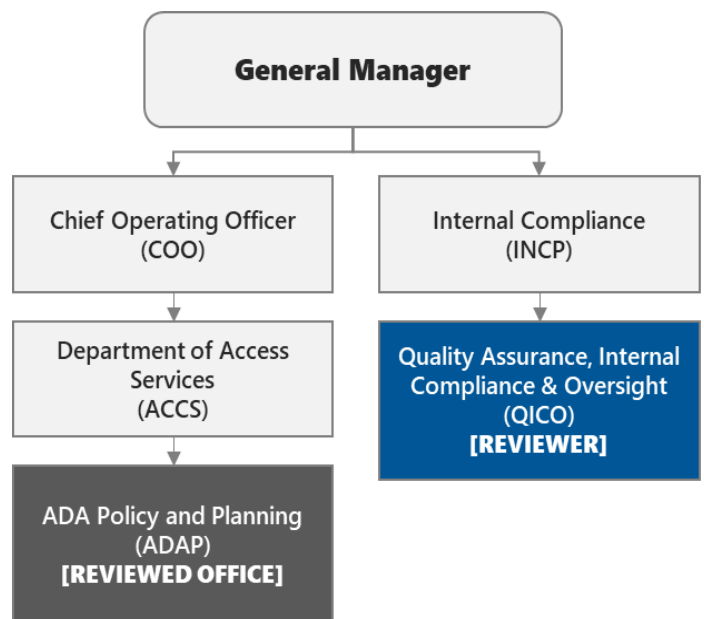
7.2. REVIEW SCOPE

Documentation Review

- United States Department of Transportation (USDOT) ADA Standards for Transportation Facilities.
- Federal Transit Administration (FTA) ADA Circular C 4710.1.
- United States Department of Justice (USDOJ) 2010 ADA Standards for Accessible Design.
- WMATA Policy/Instruction 16.1/2: ADA Compliance and Jurisdiction of the Department of Access Services.
- Permanent Order T-17-07: Procedures for the Areas of Refuge (AOR).

Field Assessments

- For part 3 of this Internal Review, the remaining 33 Metrorail stations were assessed.

Stations Assessed Details

Station	Lines	Station	Lines
Arlington Cemetery	BL	Medical Center	RD
Capitol South	OR BL SV	Morgan Boulevard	BL SV
Cheverly	OR	Ronald Reagan National Airport	YL BL
Clarendon	OR SV	Smithsonian	OR BL SV
Cleveland Park	RD	Spring Hill	SV
College Park	GR	Tenleytown-AU	RD
Court House	OR SV	Twinbrook	RD
Deanwood	OR	Tysons Corner	SV
Dunn Loring	OR	Van Dorn Street	BL
Eisenhower Avenue	YL	Vienna	OR
Federal Center SW	OR BL SV	Virginia Square-GMU	OR SV
Forest Glen	RD	West Falls Church	OR
Franconia-Springfield	BL	West Hyattsville	GR
Greensboro	SV	White Flint	RD
Grosvenor-Strathmore	RD	Wiehle-Reston East	SV
Landover	OR	Woodley Park	RD
McLean	SV		

7.3. WHAT WORKED WELL (WINS)

Wins are categorized by Quality Measures and rated according to Risk Assessment

W-ADA-19-01	Regulations & Oversight	Reduces Legal & Compliance Risk	Owner – ADAP

✓ **Rail station compliance with accessibility requirements promotes safe and reliable service delivery.**

Discussion

- All 33 stations assessed during the part 3 review met the necessary ADA requirements per USDOT, FTA and USDOJ standards, in accordance with their original construction or installation dates.

7.4. AREAS FOR IMPROVEMENT

Findings are categorized by Quality Measures and rated according to Risk Assessment

F-ADA-19-01	Work Standards	Safety – Moderate (3,3)		Owner – IRPG

- **Effective maintenance of Train Approach Warning (TAW) lighting system is important to maintain reliable indication of platform edges and approaching trains at stations.**

Discussion

- All Metrorail station facilities feature embedded edge lighting along the length of each train boarding platform.
- The lights offer an enhanced level of safety for customers by providing a visual indication of the platform boundary.
- Field assessments detected discrepancies with edge lights at twenty (20) of the assessed stations, or 60% of locations.
- Several contributing factors have resulted in a backlog of deferred maintenance of edge lighting systems such as:
    - o Replacement components have become obsolete and are no longer available from original supplier.
    - o Access to system elements requires total shutdown of rail traffic at affected platforms.
    - o Failure mode varies among platforms, necessitating the development of site-specific rehabilitation plans.

QICO will not require a separate internal corrective action plan (iCAPA) for this finding. This finding will be satisfied upon closure of iCAPA, QICO-ADA-18-01. See Section 9.6 for iCAPA status.

7.5. PREVIOUSLY DEVELOPED iCAPAs

The iCAPAs mentioned below were developed as results to the previous findings identified during Internal Reviews conducted in 2017 (Part 1) and 2018 (Part 2).

| QICO-ADA-17-01 | Operational Risk | Risk Rating: Moderate | 🟨 Owner – SMNT |

- **Develop and implement a process to measure the performance and availability of the related equipment, where the output data drives improvements in the preventive maintenance schedules and maintain required records per the Policy Instruction.**

Status: CLOSED

- All action items have been submitted and considered satisfactory after review. This iCAPA is closed.

| QICO-ADA-17-02 | Safety Risk | Risk Rating: Elevated | 🟧 Owner – RTRA |

- **To ensure timely response and customer guidance during emergencies, reinforce awareness with the station managers regarding Area of Refuge locations through training and visual indication inside the kiosks.**

Status: CLOSED

- All action items have been submitted and considered satisfactory after review. This iCAPA is closed.

| QICO-ADA-18-01 | Safety Risk | Risk Rating: Moderate | 🟨 Owner – IRPG |

- **Assess state of Train Approach Warning (TAW) lighting system-wide and prioritize repairs to ensure stations with malfunctions are addressed in a timely fashion.**

Status: OPEN

- One (1) action item of nine (9) has been submitted for review.
- Action item 1 has been submitted: a list of stations to be completed under Future Above Ground Edge Light Contract & STUC-012.
- Per IRPG, status of the remaining items are as follows:
  o TAW Lighting Survey (WMATA): Completed
  o TAW Lighting Design (███ – External contractor): Estimated to be completed by December 2019
  o TAW Lighting Procurement (IRPG/PRMT): Estimated to be completed by October 2020
  o TAW Lighting Installation (IRPG): Estimated to commence January 2021, estimated completion by 2025 (4 years).

Internal Review: Engineering and Maintenance

(8) Escalator Replacement Project

June 14, 2019

Quality Assurance, Internal Compliance & Oversight (QICO)

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INTERNAL SAFETY
REVIEW

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Why QICO Performed This Review:

- This internal review is intended to provide Metro senior management with an assessment of the overall project management for the Escalator Replacement project and promote the actions needed to address any concerns.

QICO's Methodology:

- Develop relevant review activities in accordance with published FTA Project Guidelines, to include identifying and assessing any risks to policies, procedures & standards, quality & compliance, and traceability.
- Review documentation, observe processes, and interview key personnel.
- Rate findings and required actions based on severity of risk, which ranges on a scale from "Insignificant" to "High".

INTERNAL REVIEW SUMMARY — June 2019

(8) Escalator Replacement Project

Key Takeaway:
Documented Lessons Learned promotes the utilization of project best practices towards the success of future projects.

Wins:
- ✓ W-ESCL-19-01: ELES has documented Lessons Learned which will help ensure the improvement of future ELES Rehabilitation projects.
- ✓ W-ESCL-19-02: ELES has effectively utilized plywood partitions to isolate the working zones which ensures a safe work environment.
- ✓ W-ESCL-19-03: In addition to the technical certifications, ELES inspectors have manuals on-hand to ensure consistency and compliance with standards.

Note: An itemized internal Corrective and Preventive Action (iCAPA) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of iCAPA implementation go to https://www.wmata.com/initiatives/transparency/

8.1. FUNCTIONAL OVERVIEW AND STRUCTURE

ELEVATORS and ESCALATORS

The Office of Elevators and Escalators (ELES) maintains all vertical transportation equipment within the Authority and continuously strives to improve the services of the Authority's system and extend the utmost quality service to the customers. ELES has been designated as the Contracting Officer's Representative (COR), and the Contracting Officer's Technical Representative (COTR) for the Capital Improvement Project, ███████ - Escalator Replacement/ Rehabilitation Project with the authority to exercise, enter into, administer, and/or terminate contracts. The five (5) year base project, with two (2) - one (1) year options with spare parts, includes 138 new or rehabilitated escalators and has an awarded value of ██ ████████. This project was awarded in 2013 and is ahead of projected schedule, with an expected completion by end of year 2019.

To ensure the equipment and services delivered meet WMATA standards, ELES is responsible for deploying organized quality management activities such as contractor factory audits and ongoing inspections conducted by certified ELES inspectors. Further, ELES must ensure regulatory compliance with all jurisdictions through safety and security certification by the departments of licensing and regulation (local jurisdiction). Project closeout will consist of operational acceptance of all units, Original Equipment Manufacturer (OEM) training on the equipment and completion of the warranty period, which is 1 year after final certification for each unit.

This Internal Review examined the project and contract management process, and associated documentation and activities, including but not limited to:
- Project Management Plan (PMP), contract specifications, quality and safety plans, audits and inspections, schedules, certifications, and training records
- Document retention process via ████████
- Escalator installation at Courthouse Station

Organizational Structure and Background

Within WMATA, the department of Elevators and Escalators (ELES) reports to the Chief Operating Officer (COO) through the Office of Support Services (SSRV). As shown in the organization chart, QICO is independent of this function reporting to the General Manager through Internal Compliance (INCP). The scope of this internal review is limited to a review of ELES.
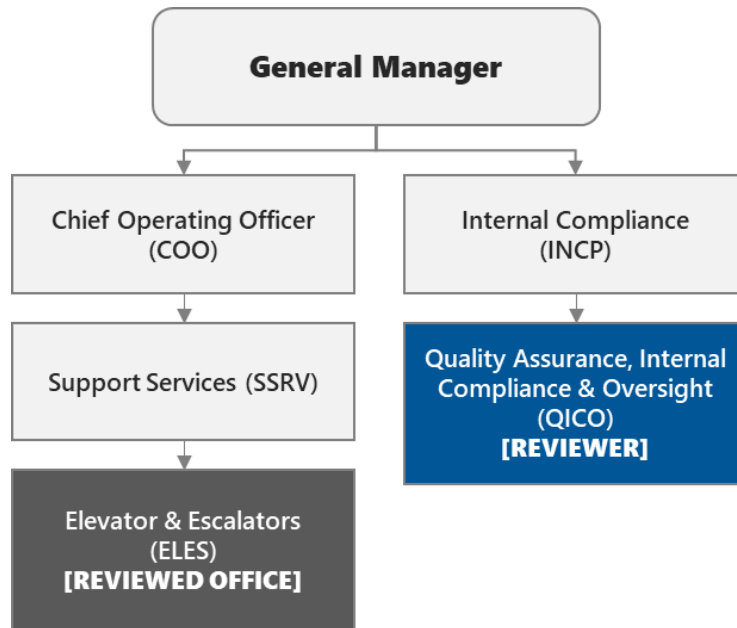
8.2. REVIEW SCOPE

Documentation Review

- ELES Capital Improvement Program - Contract ███████ PMP
- Quality Management Plan (QMP) - Appendix C of PMP
- Safety and Security Management Plan (SSMP) - Appendix E of PMP
- Conformed Contract for ███████
- ELES SOP-02, Supervision of Contract Inspections
- ███████ file review to include file structure and examples of:
  o Project Audit reports
  o Inspection reports with various dates throughout the project
  o Training Records
  o Punch Lists
  o Certificates of Compliance
  o Project Schedule
  o Rated Load Calculations worksheet
  o Certifiable Items List
  o Safety Checklists

Personnel Discussions

- ELES General Superintendent
- ELES Project Manager, CIP
- ELES Compliance Manager

Field Site Assessment

- Courthouse Station, escalator unit ███████
- Discussion with ELES Site Inspector

8.3. WHAT WORKED WELL (WINS)

Wins are categorized by Quality Measures and rated according to Risk Assessment

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W-ESCL-19-01   **Application and Fulfillment**   *Reduces Service Delivery and Safety Risk*   **Owner – ESCL**

✓ **ELES has documented Lessons Learned which will help ensure the improvement of future ELES Rehabilitation projects.**

Discussion

- During the early stages of this project, ELES realized that they would need cooperation from other departments to resolve certain challenges and ensure the success of the escalator replacement project. These challenges were identified, recorded on a tracking log and addressed immediately to keep the project on schedule and are now considered Lessons Learned. QICO received a copy of this tracking log, Major examples included:

  o Logistics Planning - during Red Line escalator replacements, pieces of the equipment had to be transported into the job sites by rail. Due in part to ongoing SafeTrack activities, track rights were causing unanticipated scheduling delays.

  o Fire Life Safety Plans - Other WMATA stakeholder assets (doors, stairways, lighting, etc.), which had not been maintained, had to be brought into compliance to maintain a safe pathway for emergency egress prior to the escalators being removed from service. Detailed plans were developed and implemented to ensure all safety risks to the public and to employees were addressed prior to the escalator replacement. This resulted in increased cost and delays as ELES coordinated with all concerned departments to correct the issues.

  o Additional staffing - During many of the stations escalator shutdowns, additional support was required from other WMATA stakeholders to maintain the safety and continued operations at these stations. This included personnel such as Station Managers, Metro Transit Police, Metro Information Personnel, and additional technicians from the Office of Plant Maintenance (PLNT), Rail Car Maintenance (CMNT) and ELES.

- With early issue identification and prompt action to resolve these issues, ELES project management team maintained the overall project schedule. This project is now currently ahead of the initial projected schedule.

W-ESCL-19-02   **Job Safety**   *Reduces Safety Risk*   **Owner – ESCL**

✓ **ELES has effectively utilized plywood partitions to isolate the working zones which provide additional safety and security.**

Discussion

- ELES Standard Operating Procedure, (212-SOP-35 ELES Maintenance and Operations Safety Manual), establishes the requirement to isolate work areas from public access to ensure passenger safety. The work site observed during this review complied with this requirement. Observations included:

  o Cordoned off areas installed to maintain public safety around the job site areas. An area at Courthouse Station at the mezzanine level has been securely partitioned to provide ample work and storage space for the contractor while still accommodating the public movements along the mezzanine.

  o Plywood partitions are installed along escalator runs around the actual work areas to provide additional work zones' safety and security.

  o Informational signage has been posted throughout the station providing public notice and awareness of the ongoing construction.

| W-ESCL-19-03 | Application & Fulfillment | *Reduces Service Delivery Risk* | Owner – ESCL |

✓ **In addition to the technical certification, ELES inspectors have manuals on-hand to ensure consistency and compliance with standards.**

Discussion

- ELES has an established inspection process to ensure quality installation and performance. After ensuring the contractor's factory acceptance testing and delivery acceptance, ELES project team ensures compliance through:
  - o Daily inspections
  - o Substantial Completion Inspection
  - o Operational Testing (Conducted by the contractor but witnessed by ELES project team)
  - o Certificate of Compliance (The contractor conducts operational testing, witnessed by ELES project team and approved by the Regulatory Inspectors- Regulatory Inspectors review all punch lists and reports and any other supporting documents, and perform their own inspections to complete sign-off)
  - o Punch Lists
  - o Warranty
- ELES inspectors are certified by the National Association of Elevator Safety Authorities (NAESA), an international organization for the elevator industry. This is a requirement to hold this job position.
- ELES inspectors had a specification manual on hand for immediate reference to all project technical specifications.
- Samples of inspection reports, internal audits, schedules, and compliance certificates were selected at random from various dates of the project and reviewed by QICO. The reports selected include:
  - o Project Schedule (current)
  - o WMATA Audit of the contractors Quality Management System (QMS) (6/2014)
  - o Inspectors Daily Report (3/1/2019)
  - o Certificate of Factory Acceptance Report (11/2013)
  - o Substantial Completion Inspection report (2/2016)
  - o Contractor provided training roster (11/2017)
  - o Certificate of Compliance report (8/2018)
- Subsequent review of these reports demonstrates the sequence of escalator unit inspections from factory assembly and test, site installations, final testing, and certification by local jurisdictions.
- ELES inspectors are not restricted to only the current escalators' installation but are also vigilant in their observations of any irregularities with other equipment within the station. Once irregularities are identified, they are reported to the appropriate stakeholders as well as recorded.

Washington Metropolitan Area Transit Authority

INTERNAL REVIEW 2019

Internal Review: Internal Safety Review

(9) Drug and Alcohol Policy and Testing Program

September 10, 2019

Quality Assurance, Internal Compliance & Oversight (QICO)

Promoting Transparency, Accountability, & Public Confidence

ENGINEERING &
MAINTENANCE

SERVICE
DELIVERY

CAPITAL PROGRAM –
MANAGEMENT
& EXECUTION

INTERNAL SAFETY
REVIEW

What is QICO?

- The Office of Quality Assurance, Internal Compliance & Oversight (QICO) is an internal management function that partners with other departments to provide an objective review. QICO and the internal review process are authorized by the General Manager as outlined in the Quality Management System Plan (QMSP).

Why QICO Performed This Review:

- This internal safety review is intended to provide Metro senior management with an assessment of the Drug and Alcohol Program, compliance with federal regulations and WMATA's System Safety Program Plan (SSPP), and promote the actions needed to address any concerns.

QICO's Methodology:

- Develop relevant review activities in accordance with the published Federal Transit Administration (FTA) regulations and the SSPP to include identifying and assessing any risks to element 20 Drug and Alcohol Abuse. The major goal of the Drug and Alcohol Policy and Testing Program is to verify a safe operating environment for the public and WMATA employees.
- Review documentation and interview key personnel.
- Rate findings and required actions based on severity of risk, which ranges on a scale from "Insignificant" to "High".

INTERNAL REVIEW SUMMARY

September 2019

(9) Drug and Alcohol Policy and Testing Program

Key Takeaway:

WMATA's Drug and Alcohol Program incorporates proactive compliance measures to ensure federal testing parameters are met.

Wins:

✓ Full compliance with the Department of Transportation (DOT)/Federal Transit Administration (FTA) requirements set forth in 49 CFR parts 40 and 655.

Note: An itemized internal Corrective and Preventive Action (iCAPA) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of iCAPA implementation go to https://www.wmata.com/initiatives/transparency/

9.1. FUNCTIONAL OVERVIEW AND STRUCTURE

Occupational Health and Wellness (OHAW)

Occupational Health and Wellness (OHAW) is responsible for providing Clinical Services to WMATA and prospective employees. OHAW manages the Random Drug Testing, Wellness, Employee Assistance/Substance Abuse Programs, and monitors the Drug and Alcohol Testing Program for WMATA's safety sensitive contractors to ensure compliance with Federal Transit Administration (FTA) regulations. OHAW serves as WMATA's Drug and Alcohol Program Office as well as the Americans with Disabilities Act Coordinator for employee and applicant disability evaluations.

The objective of the Drug and Alcohol (DRUG) Internal Safety Review (ISR) is to internally validate WMATA's Drug and Alcohol Program compliance with the FTA regulations and satisfy the requirements of Drug and Alcohol Abuse, Element 20 of the Authority's System Safety Program Plan (SSPP). The scope of this review is limited to OHAW's Drug and Alcohol Program, other offices within OHAW are not subject of this review.

QICO conducted OHAW's ISR to promote continuous compliance with the stated regulations to achieve compliance and demonstrate an acceptable level of risk through the following:

- Compliance to written policies, procedures and rules
- Employee training and awareness
- Mitigating hazards, and
- Promoting safety

Organizational Structure and Background

Within WMATA, the department of Occupational Health and Wellness (OHAW) reports to the Office of Internal Business Operations (IBOP). As shown in the organization chart, QICO is independent of this function reporting to the General Manager through Internal Compliance (INCP). The scope of this internal safety review is limited to a review of OHAW's Drug and Alcohol Program.
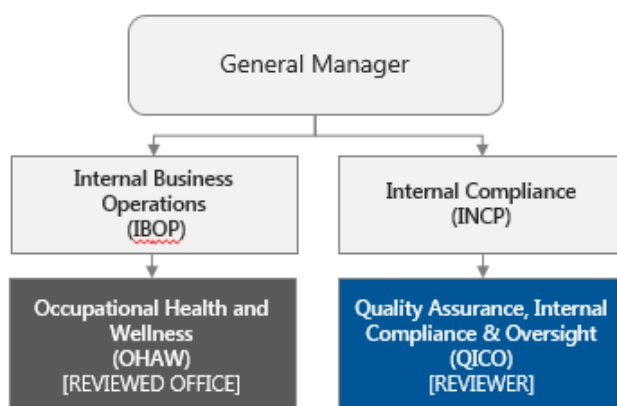
9.2. REVIEW SCOPE

Documentation Review

- Policy/Instruction (P/I) 7.7.3/6-Drug % Alcohol Policy and Testing Program
- Random drug and alcohol test records
- Supervisor Training Rosters-Reasonable Suspicion
- 2018 Annual reporting to FTA
- Medical Review Officer (MRO) Certification of Compliance
- WMATA SSPP (Element 20)
- FTA Regulations 49 CFR part 40 and 49 CFR part 655
- Tristate Oversight Committee Fitness for Duty Programs Triennial Review-Final Report (2018)

Personnel Discussions

- Manager, Drug and Alcohol Compliance Program

Field Site Assessment

- Employee Assistance Program (EAP) Office

9.3. WHAT WORKED WELL (WINS)

Wins are categorized by Safety Measures and rated according to Risk Assessment

W-DRUG-19-01	Policies, Procedures & Standards	*Reduces Safe Work Standards Risk*	Owner – OHAW

✔ Full compliance with the Department of Transportation (DOT)/Federal Transit Administration (FTA) requirements set forth in 49 CFR parts 40 and 655.

Discussion

- Policy Instruction 7.7.3/6 Drug & Alcohol Policy and Testing Program includes the following areas where the Authority's standards meets Federal Regulations are listed below.
    - The policy definitions for "safety-sensitive job functions" are closely aligned with WMATA's actual job descriptions than the broader definitions are within 49 CFR parts 40 and 655.
    - The policy includes post-incident testing requirements for all contractors, both in safety-sensitive and non-safety sensitive functions when circumstances require such testing.
    - 14 of 14 (100%) of the drug and alcohol confirmatory concentration levels are more restrictive at WMATA than the DOT/FTA requirement. An example would be the DOT/FTA considers an alcohol violation at 0.04% whereas the Authority considers an alcohol violation at 0.02%. (Reference §5.04 of the Drug and Alcohol Policy)
    - The policy includes requirements and restrictions for prescribed and over-the-counter drug usage while the DOT/FTA is silent on over-the-counter drug usage.
    - Return to duty testing is required for non-DOT as well as DOT job classifications. (Policy/ Instruction 7.7.3/6-5.02.j.3)
- DOT/FTA regulation's percentage of the annual random drug and alcohol testing of covered employees is set at 50% for drug, and 10% for alcohol (49 CFR Part §655.45). OHAW sets the random drug testing at 54%, and alcohol testing at 13%. This mitigates the risk and allows attrition for employee vacation, sick days, etc. to ensure compliance with the DOT/FTA regulation.
- QICO requested a record of the 2018 annual report sent to the FTA on March 15, 2019. Review of the document validated compliance of the required testing percentages.

BUS OPERATIONS COMMUNICATION CENTER iCAPAs

INTERNAL REVIEW

Service Delivery

In response to the internal review report regarding the Metro Bus Operations Communication Center (BOCC), the Office of Quality Assurance, Internal Compliance & Oversight (QICO) has coordinated the development of two (2) iCAPA's. The iCAPA's outline the findings, recommendation and requirements to be addressed, and a detailed action plan outlining responsible parties and specific actionable items.

EXECUTIVE LEADERSHIP OF RESPONSIBLE PARTIES

Internal Corrective and Preventive Action (iCAPA) Commitment

_____   7/11/19
Joseph Leader   _Date_
Executive Vice President & Chief Operating Officer

EXECUTIVE LEADERSHIP OF RESPONSIBLE PARTIES

Internal Corrective and Preventive Action (iCAPA) Commitment

_____   7/11/19
Hakim Davis   _Date_
Vice President, Quality Assurance, Internal Compliance & Oversight (QICO)

_____   7/16/19
Eric Christensen   _Date_
Executive Vice President, Internal Compliance (INCP)

_____   7/17/19
Paul J. Wiedefeld   _Date_
General Manager & Chief Executive Officer (GM/CEO)

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Purpose and Scope

On June 7th, 2019, the Office of Quality Assurance, Internal Compliance & Oversight (QICO) issued the Metro Bus Operations Communication Center (BOCC) Internal Review report. The focus of the review was to provide Metro senior management with an assessment of the state of BOCC and promote the actions needed to address any concerns. Specifically, QICO reviewed the following areas:

- Compliance with existing BOCC procedures
- Call and incident management
- Training of BOCC personnel

This internal Corrective and Preventive Action (iCAPA) report is developed to address associated finding(s) and required action(s) for F-BOCC-19-01.

Required Action

QICO-BOCC-19-01	*Bus Operations Communication Center*	Moderate

Required Action(s): Develop a Quality Control Plan (QCP) for BOCC to promote consistent departmental performance.

- F-BOCC-19-01: A formal quality control plan is essential to monitoring and improving BOCC activities.

    Measure: Quality Control   *Risk:* Moderate *(3,3)* – Service Delivery

Action Plan Overview

BOCC will develop a quality control plan that will allow for monitoring of key specialist activities, analyze resources, better direct training, and reveal opportunities for improvement in day-to-day operations.

Business Impact – Budget/Cost Estimate

Process Improvement – A current process/procedure needs to be optimized to address the Required Action(s). This type of initiative does not need additional resources because current manpower will be used to improve the process.

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	Actionable Items	Description	Responsible Party[1]	Est Start[2]	Est End[3]
1.	Quality control procedure	BOCC will develop a procedure detailing the requirements for supervisory quality control checks for specialists that includes, at a minimum, the steps for managing calls, transfers, and follow-up actions for events. This procedure will provide a standardized criteria checklist and frequency of checks to be completed by BOCC supervisors conducting the checks. BOCC will submit the new procedure.	Robert Harmon BOCC	07/29/19	10/30/19
2.	Documented awareness of BOCC supervisors for new procedure	BOCC will communicate the new procedure to supervisors responsible for performing supervisory checks on specialists. BOCC will submit evidence of the awareness among supervisory staff.	Robert Harmon BOCC	11/04/19	12/11/19
3.	QICO CAP Verification Report	QICO will evaluate actionable items submitted to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the actionable item descriptions and performance measures.	QICO	12/12/19	01/08/20

Performance Measures

- BOCC will submit the new quality control procedure.
- BOCC will submit quality control reports covering the first quarter of implementation, based on the identified frequency.

---

[1] In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

[2] Est Start – Estimated Start Date.

[3] Est End – Estimated Completion Date.

[4] Offices designated as supporting roles provide subject matter expertise to responsible parties during action development and are not directly responsible for delivery of actionable items listed above.

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Responsible Parties

BOCC	Robert Harmon	██████████████ ~~signature~~ 7/3/2019	
		(Signature/Date)	

Second-Level Responsibility

BOCC	Gregory Edwards	██████████████ 7/3/19	
		(Signature/Date)	

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Purpose and Scope

On June 7th, 2019, the Office of Quality Assurance, Internal Compliance & Oversight (QICO) issued the Metro Bus Operations Communication Center (BOCC) Internal Review report. The focus of the review was to provide Metro senior management with an assessment of the state of BOCC and promote the actions needed to address any concerns. Specifically, QICO reviewed the following areas:

- Compliance with existing BOCC procedures
- Call and incident management
- Training of BOCC personnel

This internal Corrective and Preventive Action (iCAPA) report is developed to address associated finding(s) and required action(s) for F-BOCC-19-02.

Required Action

QICO-BOCC-19-02	*Bus Operations Communication Center*	Low

Required Action(s): Create a controlled curriculum that encompasses all training aspects of BOCC.

- F-BOCC-19-02: A defined certification and training program promotes proper skills management.

  Measure: Quality Control   *Risk: Low (3,2) – Service Delivery*

Action Plan Overview

BOCC will develop a controlled curriculum that encompasses all training aspects of BOCC, promoting proper skills management.

Business Impact – Budget/Cost Estimate

Process Improvement – A current process/procedure needs to be optimized to address the Required Action(s). This type of initiative does not need additional resources because current manpower will be used to improve the process.

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Quality Assurance, Internal Compliance & Oversight (QICO)
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Actionable Items	Description	Responsible Party[1]	Est Start[2]	Est End[3]
1. Develop training curriculum for BOCC specialists	BOCC and BTRN will create a training curriculum that includes the structure, format, and sequence of course content for new hires and incumbents in the specialist role. BOCC will submit the developed training curriculum.	Robert Harmon BOCC Supporting Office[4]: Kerone Jeanniton-Georges BTRN	07/29/19	11/27/19
2. QICO CAP Verification Report	QICO will evaluate actionable items submitted to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the actionable item descriptions and performance measures.	QICO	12/02/19	01/08/20

Performance Measures

- BOCC will submit a training schedule utilizing the updated curriculum.
- BOCC will submit training records covering the first round of training, utilizing the new curriculum.

---

[1] In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

[2] Est Start – Estimated Start Date.

[3] Est End – Estimated Completion Date.

[4] Offices designated as supporting roles provide subject matter expertise to responsible parties during action development and are not directly responsible for delivery of actionable items listed above.

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Responsible Parties

BOCC   Robert Harmon   7-3-19
                                                    (Signature/Date)

Supporting Role Acknowledgement

BTRN   Kerone Jeanniton-Georges   7.3.19
                                                    (Signature/Date)

Second-Level Responsibility

BOCC   Gregory Edwards   7/3/19
                                                    (Signature/Date)

BTRN   Larry Frazier
                                                    (Signature/Date)

SUPPLEMENTAL MATERIALS

APPENDIX A: QUALITY MEASURES

Policies, Procedures & Standards

- **Work Standards:** The existence and effectiveness of department policies, procedures, manuals, work instructions, quality control measures, and other requirements that define department activities.
- **Work Measurement:** The existence and effectiveness of operational goals (indicators) and sound management routines to achieve these goals.
- Change Management: The existence and effectiveness of processes, tools and techniques to manage changes to a system to achieve intended outcomes.
- **Skills Management:** The existence and effectiveness of a training strategy to ensure personnel are adequately qualified to perform work.

Quality & Compliance

- Application & Fulfillment: Adherence to existing/adopted policies, procedures, and standards; including applicable engineering or other technical requirements that specify material and/or workmanship standards.
- Job Safety: Adherence to safety requirements, including enterprise-wide standards (e.g. MSRPH) or those specific to a particular type of work (e.g. PPE).
- Quality Control: The performance of quality control functions to ensure the consistency and reliability of work performed; including the usage of properly calibrated equipment and compliant materials/parts.
- **Regulations & Oversight:** Adherence to requirements, guidelines, and recommendations from external/regulatory authorities and internal oversight functions, including items issued for corrective and preventive actions.

Traceability

- Data Assurance: Assessment of the validity, accuracy, consistency, relevance, and completeness of data used to schedule, document, and track work activities.
- Assets and Activities: Assessment of the ability to verify the history, location, or application of an item by means of documented recorded identification; including the quality and validity of data capturing this information.
- Document Control: Assessment of version control, ownership and approval, dissemination, storage and accessibility of business-critical documents.

APPENDIX B: SYSTEM SAFETY MEASURES

Policies, Procedures & Standards (SSPP Elements 1-5, 12, 13, 15 & 17)

- **Safe Work Standards:** The existence and effectiveness of department policies, procedures, manuals, work instructions, safety and security practices, and other safety and security requirements that define department safe work practices.
- **Work Measurement:** The existence and effectiveness of operational safety goals and sound management routines to achieve these goals.
- **Configuration Management:** The existence and effectiveness of processes, tools, and techniques to manage changes to a system to achieve intended outcomes.
- **Safety Management:** The existence and effectiveness of supervision strategy to ensure personnel are adequately equipped to perform work safely and qualified to perform work to standard.

Training, Certification & Compliance (SSPP Elements 16, 18, 20 & 21)

- **Application & Fulfillment:** Adherence to existing/adopted policies, procedures, and standards; including applicable engineering or other technical requirements that specify material and/or workmanship standards.
- **Job Safety:** Adherence to safety requirements, including enterprise-wide standards (e.g. MSRPH) or those specific to a particular type of work (e.g. PPE).
- **Safety Training & Certification:** The existence and effectiveness of a training strategy to ensure personnel are adequately qualified to perform work.
- **Regulations & Oversight:** Adherence to requirements, guidelines, and recommendations from external/regulatory authorities and internal oversight functions, including items issued for corrective and preventive actions.

Hazard Management (SSPP Elements 6, 10, 11 & 19)

- **Data Assurance:** Assessing the existence of a hazardous condition that has been identified.
- **Assets and Activities:** The performance of gathering all data, conducting interviews & field inspections to determine the risk level and prioritize hazardous conditions and focus available resources on the most serious hazards requiring resolution.
- **Document Control:** Assessing the effectiveness of hazard tracking and documentation of all systems to mitigate and prevent reoccurrence.

Safety (SSPP Elements 7, 8, 9 & 14)

- **Managing Safety in System Modification:** Evaluating and assuring that a proposed modification does not adversely affect the system, vehicle, equipment or facility previously certified under the System Safety & Security process.
- **Emergency Management:** Assessing the management of operational emergencies and preparedness to maintain and continue safe operation under such conditions.
- **Occupational Safety & Health:** Validating the development of Safety programs and the administration of training to required personnel to assure safe and healthful working conditions for employees and contractors.

APPENDIX C: RISK ASSESSMENT

Risk Assessment Methodology

Risk is defined as an uncertain event or condition that, if it occurs, has a positive or negative effect on the organization's objectives and operations (both threats and opportunities). It is assessed on the combination of the probability of occurrence of risk and the severity of the risk. Risk management is an attempt to answer the following questions:

- What can go wrong? – The Risk
- How bad are the consequences? – The Impact
- How often does/will it happen? – The Probability of Occurrence
- Is the risk acceptable? – The Risk Treatment, Remediation

Categories of Risk

- *Service Delivery* – A broad range of risks with direct or indirect impact on daily transit and/or business operations. The risk of direct or indirect losses or other negative effects due to inadequate or failed internal business or transit operations, or from external events that impair internal processes, people, or systems.
- *Financial* – The risk to achievement of the Authority's mission arising from an inability to manage credit, debt and financial leverage, and other financial resources. Financial risk would also include risk arising from adverse movements in market rates or the Authority's inability to meet its obligations.
- *Legal & Compliance* – Risks arising from a failure to comply with applicable laws and regulations and a failure to detect and report activities that are not compliant with statutory, regulatory, or internal policy requirements. Failure to comply with prescribed guidelines and established practices. This would also include a lack of awareness or ignorance of the relevant standards, guidelines or regulations.
- *Safety* - The risk of achievement of the Authority's mission arising from failures to prevent hazards that may cause harm to human, equipment, or the environment. This would also include risk arising from the Authority's inability to comply with safety-related legal or regulatory standards.
- *Strategic* – Risks arising from failure to achieve strategic or tactical objectives, an adverse business decision, or a lack of strategic direction and leadership. This would also include the ineffective implementation of the strategic plans, a lack of business strategies developed to achieve goals, and inadequate resources deployed against the achievement of those goals. Strategic risks can be affected by changes in the political environment such as changes in administration and resulting changes in strategic priorities. Strategic risks can also be triggered by actions of key stakeholders such as the Tri-Jurisdictional law makers or the Federal Transit Administration (FTA).
- *Technology* – The risk of unexpected losses from inadequate systems, breaches in information technology security, and inadequate business continuity planning. This would also include risks to the achievement of the Authority's mission arising from the inability of networks, security, and technologies to meet Metro's evolving needs.
- *Reputation* – The risk to the achievement of the Authority's mission arising from negative internal or external stakeholder opinion. Reputation risk affects the Authority's ability to establish new and/or sustain existing relationships.

Risk Assessment Process

The following risk matrix is used to assess risks within the universe of review areas. The universe (see Table 1) is comprised of the potential range of all review activities and review business units (or departments) that fall within QICO's scope and oversight authority. These business units consist of programs, processes, assets and people which together contribute to the fulfilment of the departments' strategic goals (Goal 1 - Build Safety Culture; Goal 2 - Deliver Quality Service; Goal 3 - Improve Regional Mobility; and Goal 4 - Ensure Fiscal Stability).

Risks are assessed based on the significance of their impact (see horizontal axis in Figure 1) and the probability of occurrence (see vertical axis in Figure 1). The probability ratings are rated on a scale of 1 (minimum) to 5 (maximum) and are driven by the metrics shown on the next page. The impacts ratings are also rated on a scale of 1 (minimum) to 5 (maximum) and are driven by the category of risks, which are then aligned on the metrics shown on the next page.

Each finding is given a severity rating of Insignificant, Low, Moderate, Elevated or High. All areas with Elevated/High ratings are considered to be high risk to the organization's objectives; and need to be mitigated/reduced in severity at the earliest. The risk ratings to the findings are provided as "Type of Risk" followed by "Severity Rating (Impact, Probability)" (e.g. a finding with *Elevated (4,3)*" would mean a 'significant (4)' impact along with a 'possible (3)' probability of occurrence).

Risk Assessment Matrix

		Potential Impact of Risk				
Almost Certain (5)		Low	Moderate	Elevated	High	High
Likely (4)		Low	Low	Moderate	Elevated	High
Possible (3)	Probability of Occurrence	Low	Low	Moderate	Elevated	Elevated
Unlikely (2)		Insignificant	Low	Low	Moderate	Moderate
Rare (1)		Insignificant	Insignificant	Low	Moderate	Moderate
Probability		**Potential Impact of Risk**				
Impact		**Negligible (1)**	**Minor (2)**	**Moderate (3)**	**Significant (4)**	**Major (5)**

Risk Scale Definitions

Insignificant		Reasonable assumption that this risk will not occur and unlikely to cause the activity to fail to meet part of its objective.
Low		Reasonable assumption that this risk will likely not occur & may cause a failure of the business process to meet part of its objectives.
Moderate		Reasonable assumption that this risk may occur & may cause a failure of the business process to meet a significant part of its objectives.
Elevated		Reasonable assumption that this risk will likely occur & likely to cause a failure of the business process to meet a significant part of its objectives.
High		Reasonable assumption that this will occur & will cause a failure of the business process to meet its objectives or cause objective failure in other activities.

Potential Impact

(1) Negligible – Unlikely to cause the activity to fail to meet part of its objectives.

(2) Minor – May cause a failure of the business process to meet part of its objectives, which may expose Metro to minor financial losses, less- effective or efficient operations, some non- compliance with laws and regulations, waste of resources, etc.

(3) Moderate – May cause a failure of the business process to meet a significant part of its objectives, or negatively impact the objectives of other activities, which may expose Metro to moderate financial losses, reductions to or ineffectiveness of operations, non- compliance with laws and regulations, sizable waste of resources, etc.

(4) Significant – Likely to cause a failure of the business process to meet a significant part of its objectives, or negatively impact the objectives of other activities, which may expose Metro to significant financial losses, reductions to or ineffectiveness of operations, non- compliance with laws and regulations, sizable waste of resources, etc.

(5) Major – Will cause a failure of the business process to meet its objectives, or cause objective failure in other activities, which may cause or expose Metro to major financial losses, interruptions in operations, failure to comply with laws and regulations, major waste of resources, failure to achieve stated goals, etc.

Probability of Occurrence

(1) Rare – Reasonable assumption that this risk will not occur

(2) Unlikely – Reasonable assumption that this risk will likely not occur

(3) Possible – Reasonable assumption that this risk may occur

(4) Likely – Reasonable assumption that this risk will likely occur

(5) Almost Certain – Reasonable assumption that this will occur

DESCRIPTION

- **Area of Refuge (AOR):** Sometimes known as an Area of Rescue Assistance, AOR is a location in a building designated to hold occupants during an emergency, when evacuation may not be safe or possible. Occupants can wait there until rescued or relieved by first responders.

- **BOCC Specialist:** A WMATA employee within BOCC that monitors and manages buses and non-revenue vehicles from the Bus Operations Communication Center. They distribute pertinent information to the appropriate individuals who respond and act upon the information received.

- **Bus Division:** A facility in which WMATA stores and services buses on a regular basis. This includes mechanical repairs, cleaning, fueling, and dispatching buses on routes.

- **BusETA:** Provides an enhanced user experience for customers using an open-source arrival-prediction algorithm that is quickly becoming a standard in the transit industry. BusETA features include real-time bus arrival information, the three next buses to arrive, how many stops away the next bus is, Metro alerts and advisories, and available nearby routes.

- **De-Escalation Training:** A conflict resolution approach that keeps high stress situations under control through verbal communication.

- **Emergency Egress:** An unobstructed accessway used to exit a station or building in case of an emergency.

- **Incident** ████████ An event or occurrence notable enough to be recorded.

- **Key Performance Indicator (KPI):** A quantifiable measure used to evaluate the success of an organization, employee, etc. in meeting objectives for performance.

- **Lessons Learned:** The learning gained from the process of performing the project that should be actively considered for future projects.

- **Maintenance Operation Center (MOC):** Responsible for monitoring the technical operations of the Authority's communications-electronics system, electrical power distribution systems, automatic train control system, plant fixed facilities, and rail computer systems. MOC also provides technical guidance in diagnosing and troubleshooting service-affecting problems.

- **NAESA:** National Association of Elevator Safety Authorities is an international organization for members from all segments of the elevator industry, promoting a standard safety code and interpretation thereof for elevators and related equipment.

- **On-the-job Training (OJT):** Employee training at the place of work while he or she is doing the actual job.

- ████████████████████████████ **(ELM):** A computer-based program that documents all the pertinent training data for WMATA employees and serves as their training record repository.

- **Policy Instruction** (P/I): mandatory agency-wide documents, intended for a broad audience, which aligns with Metro's core objectives to; provide policy guidance and relevant instructions to employees on matters that affect Metro or specific multiple departments or offices within Metro.

- ████████ : Specialized construction project management software. Provides real time accessibility for all project team members.

- **Quality Control Plan (QCP):** Ensures that an organization, product or service is consistent. It has four main components: quality planning, quality assurance, quality control and quality improvement. Quality control is focused not only on product and service quality, but also on the means to achieve it.

- **Refresher Program:** A Short-term course aimed at recall and reinforcement of previously acquired knowledge and skills.

- **SafeTrack:** An accelerated track work program to address safety recommendations and rehabilitate the Metrorail system to improve safety and reliability. This program ran from June 2016 through July 2017.

- **Standard Operating Procedure (SOP):** Standard Operating Procedures (SOP) delineate responsibilities and procedures for performing certain Metrobus functions.

- **Train Approach Warning (TAW):** Recessed lighting located along the length of the edge of every train boarding platform within the Metrorail system. The lamps provide a visual warning indicating the edge of the platform at all times. The TAW lights switch from an always-on state to a flashing mode when a train is approaching the platform.