EXHIBIT B

SYSTEM SAFETY PROGRAM PLAN

Washington Metropolitan Area Transit Authority

SYSTEM SAFETY PROGRAM PLAN

January 2017

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Concurrences and Approval

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May 30, 2017
Date

2017 System Safety Program Plan Revisions		
Section	Revisions	Reason for Revision
Approvals Page 3	Update to current management structure	Organizational Changes
Sections 1.0 through Attachment 1	Update all sections to reflect the new organizational structure, responsibilities, procedures / process changes and acronyms. Added Oversight and Surveillance Plan for WMATA, Version 1.7 as Attachment 1	Organizational Changes

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1.0 Introduction

The Washington Metropolitan Area Transit Authority (WMATA) System Safety Program Plan (SSPP) consists of a series of required activities that must be undertaken to ensure the safety of its customers, employees, emergency responders and the public. The System Safety Program includes the application of a management structure, safety analysis techniques, accident/incident investigation, internal safety auditing, hazard management, safety and security certification, emergency management and fire protection and fire suppression requirements.

Development of this SSPP was in accordance with the revised FTA Final Rule (April 29, 2005): Code of Federal Regulations title 49, part 659; Rail Fixed Guide-Way Systems; State Safety Oversight. This SSPP was prepared in accordance with FTA-WMATA Safety Oversight (FWSO) requirements.

1.1 Authority

Federal enabling legislation signed into law on November 6, 1966, created the Washington Metropolitan Area Transit Authority. The law included the development of a rail transit system to serve the greater Washington, D.C. area. On October 21, 1972, legislation passed authorizing WMATA to acquire the area's privately held bus companies and to provide bus service to the public in the greater Washington, D.C. area. Under Federal, District of Columbia, Commonwealth of Virginia, and State of Maryland legislation, various government agencies exert authority over the responsibility for various safety and fire protection aspects of WMATA.

Because WMATA is partially federally funded, all program planning, including system safety, falls under the oversight of the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA) and is subject to their review. The National Transportation Safety Board (NTSB) has the responsibility and authority to conduct an investigation of transportation accidents and make recommendations to prevent future accidents/incidents.

In accordance with FTA Safety Directive No. 16-1, Notice No. 1, the FTA will exercise leadership over the Tri-State Oversight Committee (TOC) as part of the FTA's direct oversight of the safety of the Washington Metropolitan Area Transit Authority (WMATA) rail system. It realigns the work that the TOC will perform under the direction of FTA and identifies responsibilities FTA will assume to accomplish the existing State Safety Oversight Program requirements under current federal law and regulations. This action is temporary until such time as Virginia, Maryland and the District of Columbia replace the TOC with a new State Safety Oversight Agency that is fully compliant with 49 U.S.C. §5329(e).

This Directive outlines the respective roles and responsibilities of the TOC and FTA:

1. In exercising its lead responsibility for safety oversight of the WMATA rail system, FTA will conduct inspections, investigations, audits, examinations, and testing of WMATA's equipment, facilities, rolling stock, and operations; make reports and issue directives; impose reporting requirements; exercise other FTA oversight authorities; and withhold or direct the use of Federal financial assistance to WMATA, as necessary and appropriate.
2. At all times, FTA will retain lead responsibility for ensuring WMATA's completion of the CAP, but from time to time, FTA may task TOC to track and monitor WMATA's performance in completion of any required action under the CAP or any matter related to an FTA Safety Directive to WMATA. As available and appropriate, TOC will make its staff and consulting resources available for overseeing WMATA's completion of the required actions under the CAP.
3. In the immediate future, FTA will conduct an assessment of all findings and recommendations by TOC that remain unresolved. FTA will then address the findings and recommendations by TOC, as appropriate; to ensure that corrective actions are pursued under FTA oversight.
4. TOC remains responsible for compliance with the State Safety Oversight regulations at 49 C.F.R. Part 659. Until the District of Columbia, State of Maryland , and Commonwealth of Virginia establish a State Safety Oversight program that FTA has certified in accordance with 49 U.S.C. § 5329(e), FTA will provide leadership and general direction to the TOC for purposes of ensuring that all current 49 C.F.R. Part 659 regulations are met.
5. FTA will oversee the safety of the WMATA rail system, and specifically, WMATA's implementation of the required actions under the CAP.

1.2 System Safety Policy Statement

On April 28, 1983, the WMATA Board of Directors approved the WMATA System Safety Policy Statement (see exhibit 1-1) establishing the safety philosophy and safety objectives of the Authority. The System Safety Policy Statement was amended on December 16, 2010. On April 26, 2012, the WMATA Board of Directors passed a resolution that reaffirmed the December 16, 2010 amended System Safety Policy Statement (see exhibit 1-2).

The System Safety Policy Statement directs that safety standards be established and that appropriate inspections be accomplished for all facets of the operations including design, construction, testing, operations and maintenance. Procedures to ensure passenger and employee safety are also required.

The System Safety Policy Statement also directs that a comprehensive System Safety Program Plan (SSPP) be developed and implemented. The SSPP defines an integrated, closed-loop approach to system safety and addresses organizational responsibilities, safety program implementation and safety verification. The SSPP was established under Policy/Instruction No. 1.13/0, Departmental Manuals.

In addition, it is also developed and implemented in accordance with the oversight requirements of the FTA-WMATA Safety Oversight Office (FWSO). The FWSO has the capacity and the authority to assume either direct or temporary control of the oversight of a transit agency.

The Secretary of Transportation formally exercised this authority in relation to WMATA, with the signing of FTA Safety Directive 16-1 on October 26, 2015.

WMATA BOARD OF DIRECTORS SYSTEM SAFETY POLICY STATEMENT
(Amendment 4)

The mission of the Washington Metropolitan Area Transit Authority (WMATA) is to operate and maintain a safe, reliable and effective transit system that enhances mobility, improves the quality of life, and stimulates economic development in the Washington metropolitan area. Safety shall be a major consideration in every stage of all WMATA activities, including planning, design, construction, testing, operations, and maintenance of all the coordinated Metrorail, Metrobus and MetroAccess Systems to ensure the highest practical level of safety for customers, employees, first responders and the public. In this regard, WMATA shall comply with the Federal Transit Administration regulations 49 CFR, Part 659, Rail Fixed Guideway Systems; State Safety Oversight; Final Rule and applicable local, state, and federal requirements for the safety of the transportation systems and related facilities.

To meet the goal of System Safety, three objectives have been established:

1. To avoid loss of life, injury of persons and damage or loss of property;

2. To instill a commitment to safety in all WMATA employees and contractor personnel; and

3. To provide for the identification and control of safety hazards, the study of safety requirements, the design, installation and fabrication of safe equipment, facilities, systems, and vehicles and a systematic approach to the analysis and surveillance of operational safety for facilities, systems, vehicles and equipment.

A comprehensive System Safety Program Plan (SSPP) has been developed and implemented to maintain WMATA's safety objectives and programs and should result in the elimination or control of safety hazards and the reduction of accident rates to facilitate continuous improvement in WMATA's safety performance; striving for zero accidents. The SSPP shall comply with section 10 of the Tri-State Oversight Committee's (TOC) Program Standard and Procedures. The SSPP shall organize all safety activities into a coordinated and integrated effort directed toward optimizing the safety features of equipment and operation.

The SSPP shall ensure that safety standards are established and that appropriate evaluation and review are accomplished on all facets of the WMATA operations, including system design, construction, testing, system safety and security certification, operations, and maintenance. The SSPP also shall address the procedures required to ensure customer and employee safety.

It is recognized that accountability for safety rests with each Board Member and every WMATA employee, including each supervisor, manager and executive, and that each is responsible for meeting the safety requirements of their position.

Individual employees must comply with the safety rules and procedures for his/her position, and supervisors, managers and executives must enforce the safety rules, procedures, standards and programs applicable to their departments. The SSPP shall identify the activities and the responsibilities of all participants who are involved with the design, construction, testing, operation, and maintenance of the transit system.

The General Manager is charged with the responsibility of establishing annual WMATA Safety objectives for submission to the Board of Directors in June of each year. The General Manager or designee shall submit to the Board of Directors, at the end of each fiscal year, a safety report on the WMATA operational, industrial, and construction safety performance to confirm that the safety program is being sustained as a top priority and record how the actual safety performance compares with established safety objectives. Further, a quarterly report on safety performance shall be submitted to the Board of Directors to include key safety issues, a summary of significant accidents or incidents, and recommendations for safety improvement. The General Manager has designated the WMATA Safety and Environmental Management (SAFE) Department, for overall safety management for the development and implementation of the SSPP. The Department of Safety and Environmental Management Chief Safety Officer reports directly to the General Manager.

The Board Safety and Security Committee was established to provide continual oversight to assure that all Metro facilities, systems, vehicles, equipment and operations are safe and secure for passengers, employees and the public served by Metro. The committee, comprised of the entire Board of Directors, will usually meet monthly and make recommendations for Board adoption that are focused on the direction and goals of Metro’s safety, security and police operations.

The Board Safety and Security Committee will ensure that Metro is responsive to the Tri-State Oversight Committee, the Federal Transit Administration and the National Transportation Safety Board and that internal and external safety recommendations to Metro are handled expeditiously and effectively.

Metro’s Chief Safety Officer and Chief of Police will report regularly to the committee on the status of safety and security programs, initiatives, incidents, metrics and the responsiveness of the agency to any safety findings and recommendations.

Adopted by the WMATA
Board of Directors
April 28, 1983
Amended on May 14, 1987
Amended on March 13, 1997
Amended on October 19, 2006
Amended on December 16, 2010

Exhibit 1-1

RESOLVED, That this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,

Carol B. O'Keeffe
General Counsel

Exhibit 1-2

PRESENTED AND ADOPTED: April 26, 2012

SUBJECT: REAFFIRMATION OF THE WMATA SYSTEM SAFETY POLICY STATEMENT

2012-10
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
WASHINGTON METROPOLITIAN AREA TRANSIT AUTHORITY

WHEREAS, The Board of Directors approved the WMATA System Safety Policy Statement on April 23, 1983; and

WHEREAS, The Board of Directors last amended the WMATA System Safety Policy Statement on December 16, 2010; and

WHEREAS, The Board of Directors, in response to the Federal Transit Administration's issuance of revised Title 49 CFR, Part 659, Rail Fixed Guideway Systems; State Safety Oversight, effective May 1, 2006, directed that the General Manager/Chief Executive Officer ensure that WMATA complies with the Tri-State Oversight Committee's Program Standard, Program Procedures and the WMATA System Safety Program Plan; and

WHEREAS, The Board Safety & Security Committee provides safety management oversight of WMATA activities; now, therefore be it

RESOLVED, The Board Safety and Security Committee recognizes the positive strides taken by WMATA in improving the safety of all employees and public-at-large; and be it further

RESOLVED, That the Board of Directors reaffirms the attached amendment to the WMATA System Safety Policy Statement that formalizes safety management oversight of the WMATA activities by the Board Safety and Security Committee and establishes that ongoing monitoring of the following form the basis of the Board Safety and Security Committee's safety management oversight process of WMATA Bus, Rail, and MetroAccess: (1) maintenance; (2) support and construction activities; (3) operations and safety data; (4) written accident/incident reports and staff briefings regarding fatalities, serious injuries, fires, major collisions (property damage equaling or exceeding $100,000); (5) safety matters receiving media attention; (6) National Transportation Safety Board and Tri-State Oversight Committee investigations; and (7) the Hazard Identification/Resolution Matrix; and annual internal safety audit reports; and be it further

Motioned by Mr. Downey, seconded by Mr. Acosta
Ayes: 8 - Mrs. Hudgins, Mr. Downs, Mr. Downey, Mr. Nichols, Mr. Dyke, Ms. Bowser, Mr. Acosta and Mr. Barnes

Exhibit 1-3

System Safety Policy Statement of the WMATA General Manager and Chief Executive Officer

The Washington Metropolitan Area Transit Authority was organized with the mission to provide safe, secure, reliable and effective rail, bus and paratransit transportation services to our customers. In carrying out this mission, there is no higher value or priority than safety. WMATA is developing and implementing a Safety Management System (SMS) approach to comply with the Federal Transit Administration's required framework for system safety and to advance our safety program to the next level. In tandem with the adoption of this top-down approach to managing safety risk, WMATA continues to build upon the foundation of a culture of safety at Metro.

All employees and contractors of WMATA are expected to conduct their duties safely, aimed at preventing, controlling and minimizing undesired events, such as customer or employee injury, equipment or property damage, or degradation to system safety in any WMATA function. We must remain diligent in our efforts to achieve shared safety objectives, and regard employee and customer safety as our greatest responsibility.

Beyond the core value of safety shared throughout the organization, WMATA management has unique and foremost responsibilities with regard to maturing the SMS and ultimately reducing risk to the lowest practicable level. Management is responsible for developing programs to promote and ensure the safety and security of all employees and customers, as well as for ensuring that the SMS is functioning as designed. WMATA is fully committed to providing a safe work environment, and safe vehicles, systems and facilities, all in support of the mission to deliver safe and reliable transportation services to its customers. To that end, the WMATA Chief Safety Officer is empowered and authorized to administer a comprehensive and integrated *System Safety Program Plan (SSPP)* in accordance with federal requirements.

The Chief Safety Officer, as the executive of the Department of Safety and Environmental Management, reports directly to the General Manager/Chief Executive Officer. The Chief Safety Officer is responsible for overseeing all safety management and environmental issues for WMATA. This includes: developing and implementing, with WMATA executives and managers, the *SSPP*; developing and managing a comprehensive Hazard Management Program which serves as the basis for the SMS; conducting accident and incident investigations on behalf of WMATA; developing and implementing a comprehensive Internal Safety and Security Review Program; developing and implementing a Safety and Security Certification Plan; developing occupational safety and environmental plans and procedures; conducting safety related training programs; auditing the system safety program, safety rules and Standard Operating Procedures (SOPs) for compliance; and ensuring compliance with—and fostering a collaborative relationship with—the FTA relative to safety issues, activities and programs described above.

Paul J. Wiedefeld
General Manager and Chief Executive Officer
January 2016

Exhibit 1-4

2.0 Purpose, Scope, Goals and Objectives

2.1 Purpose

The purpose of the SSPP is to set forth the requirements for systematically identifying, evaluating and minimizing safety risks throughout all elements of the Metrorail, Metrobus and MetroAccess systems.

The SSPP is the blueprint for the Authority's efforts in strengthening its overall safety management and its goal of continuous improvement in safety performance.

2.2 Scope

The SSPP identifies system safety, hazard management, accident/incident investigation, internal safety auditing, environmental management, emergency management and fire protection related activities that occur during design, construction, testing and operations.

The SSPP defines formal requirements; including the 21 Elements required in 49 CFR Part 659, and the following:

- Functional structure of the safety management organization;
    - Implementation of established safety, emergency management, environmental and fire protection criteria;
    - Mechanisms for identifying, assessing and controlling safety hazards and methods to eliminate minimize or control the unacceptable hazards that have been identified.
- Methods for conducting investigations of accidents, incidents, or unsafe acts;
- Interaction with and reporting responsibilities to the FTA and other external agencies;
- Dissemination of the SSPP to all departments; and
- Delineation of responsibilities for SSPP implementation.

Although not required by rule or regulation, WMATA has included Metrobus and MetroAccess in the scope of this SSPP to provide organizational consistency.

In accordance with the FWSO Oversight & Surveillance Plan, WMATA will submit all required information and documentation within the specified time periods and any other such documentation that the FWSO deems necessary to fulfill its mission for any reportable Hazard, Rail Accident /incident and Safety Event.

For the purposes of this document, the terms Hazard, Rail Accident /Incident and Safety Event are inter-changeable as stated in sections 6.0 and 10.0.

Sections applicable to incident notification are written with this regulatory reporting structure in mind.

The MetroAccess management team is required to develop, implement, and monitor the effectiveness of the SSPP for MetroAccess.

All supervisors at WMATA are responsible for ensuring that any work performed by their staff is reviewed for completeness, accuracy and compliance to established processes and procedures.

The review must include documentation signed by the reviewing supervisor.

Documentation may include, but not be limited to:

- Checklists;
- Completed inspection reports;
- Maximo Inputs;
- E-Mails;
- Audits – Internal or External;
- Follow up reports; and
- Other forms of documentation as required by departmental processes and procedures.

The above documentation will be reviewed by Safety Assurance during the Internal Safety and Security Review (ISSR) process.

2.3 Goals and Objectives

The goals of the System Safety Program are to ensure the safety of Metrorail, Metrobus, and MetroAccess customers, employees, first responders to Metro incidents, the public, equipment and infrastructure throughout the life of the system and to comply with 49 CFR Part 659, FWSO requirements and all applicable federal and regional requirements where appropriate.

The objectives of the System Safety Program Plan are to define safety related activities, management controls and plan and establish a process for monitoring and assuring safety in accordance with the WMATA Mission Statement and values.

The purpose of the above goals and objectives is to minimize the exposure of the public, personnel and WMATA property to hazards and unsafe conditions; and to assure that no single point of failure of a system or equipment results in an unsafe condition.

These goals and objectives are reflected in the planning, design, construction, operation and maintenance of the system. The goals and objectives are accomplished through the performance of the following functions:

- Safety, fire protection and emergency management considerations are incorporated into all design and specification development and design reviews for the system;

- Hazards associated with WMATA's system are identified and then eliminated or minimized to attain an acceptable level of risk;

- A safety culture is instilled throughout WMATA that emphasizes preventive measures over corrective measures to eliminate unsafe conditions or acts;
- Available historical data generated by WMATA is analyzed and used to support the WMATA System Safety Program Plan;
- Safety, fire protection, hazard management, internal safety auditing, accident/incident investigation, construction safety, emergency management and environmental functions (to include oversight) are coordinated with other activities of WMATA;
- Written policies, procedures, and rules are established in the Metrorail Safety Rules and Procedures Handbook (MSRPH), the Department of Bus Service Employees' Handbook (BSEH) and the Department of Operations Administrative Procedures (OAP); and
- All managers, supervisors and employees comply with Federal and state Occupational Safety and Health Administration (OSH) Standards, local codes and environmental regulations.

  Each WMATA office/department in conjunction with the Department of Safety and the Office of Performance establishes annual safety targets that are quantifiable and attainable.

Success in meeting these objectives is quantified by the collection, analysis and maintenance of accident/incident and injury statistics.

A concerted effort is exerted to ensure that accident, incident and injury rates continue to improve over the long term.

Typically, accident/incident and injury/illness statistics are reported to the Board of Directors quarterly in the Safety Committee Quarterly Report.

The Annual Safety Performance Report prepared by the Department of Safety and Environmental Management (SAFE) includes accident and injury statistics for the past calendar year.

These accident and injury statistics are also brought to the Local Safety Committees (LSC), Departmental Safety Committees (DCS), and the Executive Safety Committee (ESC) meetings on a monthly basis.

To ensure compliance and continual improvement to the above goals and objectives, WMATA's Internal Safety and Security Review team performs scheduled and unscheduled reviews of all departments within WMATA on a rotating three (3) year basis.

Upon completion of the departmental review, the findings are discussed within the team, and a preliminary report and corrective actions, if any, are generated.

The preliminary report including any corrective actions is then discussed with the reviewed department representatives.

With the preliminary report process completed, a final report is submitted to the CSO for their review and comment.

The CSO now signs and approves the final report.

Once approved the final report is distributed to the:

- Chief of Police MTPD;
- Top Management of the reviewed department; and the
- FWSO.

Once distributed, the final report hard copy is stored in the appropriate secured file cabinet in the Office of Safety Assurance (OSA) and an e-copy is stored on the SAFE Q-Drive.

3.0 Management Structure

3.1 General Overview and History of WMATA

In 1960, Congress created the National Capital Transportation Agency (NCTA) to develop a rapid rail system.

The Washington Metropolitan Area Transit Authority (WMATA) was established in 1967 and replaced the NCTA as an instrument of the State of Maryland, Commonwealth of Virginia and the District of Columbia to plan, finance, construct, and operate, a comprehensive mass transit system for the Washington metropolitan area.

In 1973, Congress consolidated the operations of several private bus companies into WMATA.

Metrorail operations began in 1976 on weekdays on 4.2 miles of revenue track and served five stations.

Metrorail began operating seven days a week in 1979 on 33.63 miles of track, serving 38 stations. Metrorail currently operates on 118 miles of track and serves 91 stations.

The projected completion of Phase 2 of the Silver Line in late 2019 will extend Metro into eastern Loudoun County adding an additional 11 miles of track and six (6) new stations.

3.2 Scope of Service

WMATA's operations consist of three distinct, but complementary systems; they are:

- Metrorail Operations

The Metrorail system serves Montgomery and Prince George's counties in Maryland, the District of Columbia, the City of Alexandria, City of Falls Church, Arlington County and Fairfax County in Virginia.

The current revenue service characteristics are:

- Monday – Friday……..5 a.m. to Midnight
- Saturday……7 a.m. to Midnight
- Sunday……..7 a.m. to Midnight
- Peak fare hours (rush hours) are from 5 a.m. to 9:30 a.m. and 3 p.m. to 7 p.m., Monday through Friday (holidays excepted);
- Maximum train lengths of eight rail vehicles;
- Minimum headways of 1.5 minutes between trains; and
- Maximum headways of 20 minutes between trains.

- Metrobus Operations

  Metrobus provides regional and local bus transportation service to Arlington County, Alexandria, Fairfax County and Falls Church in Virginia; Montgomery County and Prince George's County in Maryland; and the District of Columbia.

  The Metrobus operating characteristics are as follows:
  - Operating hours: 24 hours per day
  - All Motorbuses' are kneeling buses equipped with wheelchair ramps/lifts
  - Normal revenue service in rural, residential and urban areas throughout the Washington metropolitan area.

- Paratransit Operations

  MetroAccess, through independent contractors, provides transportation for customers whose disabilities prevent them from using bus or rail. The MetroAccess core operating hours are as follows:

  - Monday – Thursday…….5 a.m. to Midnight
  - Friday……5 a.m. to 3 a.m. Saturday
  - Saturday……7 a.m. to 3 a.m. Sunday
  - Sunday……..7 a.m. to Midnight

3.3 Physical Plant

- Metrorail physical plant
- Metrobus physical plant
- Administration physical plant

3.3.1 Metrorail Physical Plant

The completed regional Metrorail system is 117.9 miles of tunnel, elevated, and surface track, operating over exclusive Roadway and includes 91 stations.

Exhibit 3-1 illustrates the Metrorail system and the various stations and the jurisdictions of Northern Virginia (Alexandria City, Arlington County, and Fairfax County), Maryland (Montgomery and Prince George's Counties), and the District of Columbia as served by Metrorail in coordination with the Metrobus system.

Exhibit 3-1

3.3.2 Stations

Stations are subsurface, at grade and elevated construction with multiple entry/exit points to street level. Additional exits, escalators, stairs and elevators provide vertical circulation between street, fare collection and platform levels. Some stations have adjacent parking facilities, pick-up/drop-off areas and/or bus pull-in areas to accommodate patrons arriving by automobile or by bus.

Most stations have bicycle racks; many have bicycle lockers. Walkways are provided from surrounding streets, bus bays are located at the station and between parking facilities and station entrances.

While station configurations are not identical, most station elements are standardized for economy and ease of use and to establish an identity for the system.

Station addresses are included on the applicable page of the WMATA Emergency Response and Evacuation Plan (EREP) Station Annexes. These maps are distributed to all jurisdictional emergency response units and fire departments.

3.3.3 Yards and Shops

There are nine (9) Service and Inspection (S&I) Shops located throughout the system to provide routine maintenance.

The major repair facilities for rail car and equipment overhaul, extensive modifications, wheel truing, and spare parts storage to support the Metrorail system are located at the Brentwood and Greenbelt yards.

Maintenance that includes cleaning, inspections, lubricating, operational testing, minor repairs, and component replacement for Metrorail trains are performed at the S&I yards.

New rail car acceptance and preparation are accomplished at the Greenbelt Yard.

The mission of Car Maintenance (CMNT) is to initiate and successfully achieve a comprehensive maintenance program for rail vehicles and steel wheel non-revenue vehicles.

Movements of trains in the yard are coordinated through the tower operator. The Rail Station and Train Operations (RSTO) administration offices are also located in each yard.

3.3.4 Passenger Vehicles

WMATA Railcar Fleet Profile (as of January 1, 2017)

Railcar Manufacturer	Assigned Car Nos.	Service Implementation Dates	Fleet Size No. of Rail Vehicles in Use	% of Total
Rohr	**1000-1299**	**1974-1979**	**164**	**13.5**
Breda	**2000-3291**	**1983-1988**	**358**	**29.5**
Breda	**4000-4099**	**1992-1994**	**100**	**8.2**
CAF	**5000-5191**	**2001-2004**	**186**	**15.3**
Alstom	**6000-6183**	**2005-2008**	**182**	**15.0**
Kawasaki	**7000-7064**	**2015-**	**224**	**18.5**
Total			**1214**	**100%**

***** Source: CENV

All rail vehicles are flanged steel wheel rapid transit rail vehicles.

The normal capacity of each Rohr vehicle is 175 passengers, the Breda rail car is 187 passengers, the AAI/CAF rail car is 187 passengers, the Alstom 6000 Series car, is 175 and the Kawasaki 7000 Series is 175 passengers.

All rail vehicles are 75 feet long and 10 feet wide, have contoured seats, heating, ventilation and air conditioning.

Trains consist of dependent married pairs, two (2) cars, for Series 1000 to 6000 and Quad setups, four (4) cars, for the 7000 series, of rail vehicles with a maximum train length of eight (8) rail vehicles, operating over exclusive Roadway with an average speed of 35 miles per hour (mph).

Although the maximum designed speed is 75 mph, MSRPH Operating Rule 3.84 restricts the maximum speed for the Metrorail system at 59 mph except for certain segments of the Green Line where the maximum speed is 65 mph.

3.3.5 Track and Structures (TRST)

Track and Structures is divided into three primary functions:

- Maintenance;
- Inspection & Analysis; and
- Capital Programs.

The Track & Structure Maintenance Branch (TSMN) is responsible for maintaining all mainline track, special track work and yards to a state of good repair.

The Track Inspections & Analysis Branch (TSIA) is responsible for all track inspections throughout the entire Metrorail system.

The Track Inspection Division (TKIN) performs the following inspections:

- Visual mainline track inspections twice weekly;
- All mainline interlocking, monthly;
- All yards, quarterly; and
- Coordinates automated inspections i.e., rail flaw, lateral load, geometry, ultra-sound and component assessment.

The Analytical/Technology (A/T) Center compiles and develops reports to assist maintenance and production in planning, scheduling, and projecting for all system repairs.

The Track Production Capital Program Branch (TPCP) has responsibility for performing all capital budget track work system-wide. This includes, replacement of ties, turnouts, fasteners, running rail, floating slab and third rail insulators.

The Structures Maintenance Branch (STRC) under TSMN is responsible for the coordination, scheduling and implementation of all structure maintenance activities (bridges and tunnels).

On a 24-hour, seven days a week basis STRC:

- Maintains tunnels (repair structure and leaks);
- Maintains aerial structures (bridges);
- Manages the repair or diversion of station and tunnel leaks;
- Executes structural maintenance of all aerials, bridges, retaining walls, stations, and tunnels;
- Provides personnel and equipment support to the other offices and contractors;
- Manages assigned Capital Rehabilitation Programs (CRP) and Infrastructure Renewal Programs (IRP); and
- Supports the Office of Plant Maintenance (PLNT) in snow removal.

3.4 Metrorail Safety Capabilities

The following is a brief description of some of the safety capabilities incorporated in Metrorail facilities and equipment:

3.4.1 Car Design

Metrorail vehicles are designed to “fail” in the safest manner possible so that failure of any safety critical component will automatically stop the train or cause it to run at a safer, more restrictive speed.

The car borne portion of the ATP subsystem, which is part of the ATC system, ensures safe movement of the train. Trains are designed so that they cannot be moved if any side door is not closed and locked.

A Daily Safety Test (DST) is performed on every train to ensure proper operation of the ATP subsystem. Emergency braking provides a high rate of braking to ensure safe stopping in the event of an emergency.

The MSRPH, the manufacturer’s technical manuals and CMNT daily inspection procedures provide guidance for assuring that vehicles are safe for use in revenue service.

Fire resistant materials are used throughout the rail vehicles and fire extinguishers are provided in each cab.

Emergency battery power provides communication, emergency car lighting, headlights and taillights if traction power is lost.

The inter-car public address system allows passengers to talk to the operator from the intercom boxes at both ends of each car, and allows the train operator or the ROCC to pass emergency instructions and other information to the passengers.

The 6000 Series rail vehicles also have an intercom box at the center of the rail car.

3.4.2 Rail Operations Control Center (ROCC)

The ROCC is equipped with monitoring, control, and communication facilities required to operate a safe and efficient rapid transit system, and to handle emergencies.

The ROCC is staffed 24 hours per day, seven (7) days per week.

The Office of Rail Transportation (RTRA) is responsible for managing the ROCC.

A non-vital computer system, Advanced Information Management System (AIMS), housed in the ROCC, monitors train positions, switch positions, signal status and malfunctions, status of support systems such as ventilation, drainage, fire and intrusion alarms, traction power system status and pumping station alarms.

ROCC, computer systems also facilitate supervisory control of interlocking's and switches, the traction power system, and ventilation fans and dampers.

The ROCC has direct communication via radio, telephone and/or public address with the following:

- Train Operators and train passengers;
- Station managers and passengers in stations;
- TRST, ATCM and SSRV (AFC, ATC, Communications, Power, and TRST)
- CMNT and PLNT;
- Road, terminal, and yard tower supervisors;
- Local fire/rescue communications centers;
- Metro Transit Police and local police;
- Bus Operations Control Center; and
- Control towers of common corridor railroads.

Reliability is provided for the ROCC systems by a back-up computer, which automatically activates if the primary control computer malfunctions.

Two diesel generators provide standby power if commercial power is lost.

In addition, critical ROCC communication equipment and computer functions are supplied by a UPS that will provide thirty minutes of emergency power.

The ROCC staff has the responsibility for complete control of Metrorail operations and all facilities necessary to coordinate activities required for correction of an emergency and/or non-routine situation in accordance with the established standard operating procedures.

In addition to the primary ROCC facility at the Carman Turner Facility (CTF), WMATA maintains an alternative site located in the Jackson Graham Building (JGB).

The JGB site is fully capable of performing all the functions of the primary site in cases of emergency and/or loss of the CTF site.

The Washington Metropolitan Area Transit Authority, Continuity of Operations Plan, December 17, 2014, Section 3.2, describes the activation procedures that will be followed depending on the type of event, the location of the event and the systems affected by the event.

3.4.3 Metrorail Stations

The Office of Rail Station and Train Operations (RSTO) operate all Metrorail stations.

The following safety provisions are incorporated into the stations:

- Emergency Trip Stations (ETS) - An ETS is provided at both ends of every platform for emergency removal of traction power if a person falls to the track or any other emergency occurs.

- The ETS box is identified by a blue light attached to the box. Emergency telephones are located at each ETS and connect directly to the ROCC.

- Passenger Emergency Reporting System (PERS) - Two call stations are located on pylons, or support stanchions, approximately 200 feet from each end of all station platforms. This intercom system provides a means of reporting emergencies to the station manager. A control panel is located in each kiosk.

- Surveillance System - The Metrorail stations were designed to eliminate recessed or hidden areas and to provide unimpeded lines of sight for station managers and the Metro Transit Police. In addition, all passenger stations and elevators are equipped with CCTV cameras for monitoring safety and security. Monitors are located in the station kiosk(s). Digital Video Recorders and Network Video Recorders are installed at all rail stations to enhance security and aid incident investigations.

- Fire Equipment - Each station has a fire alarm control panel with separate fire zone circuits that include an ionization detector and/or a combined fixed temperature and rate-of-rise fire sensor that provides an alarm at both the station kiosk and the ROCC.

  Activation of a fire detector stops all entry escalators to slow passenger access into the station and causes passenger control arms of fare gates to open for unimpeded egress from the station.

There are standpipes under the station platforms, accessed through manholes, in vent/fan shafts and in the tunnels.

Fire extinguishers are located in station fire equipment cabinets, station kiosks, train control rooms, communication rooms, and mechanical equipment rooms, fan shafts, along the track bed at ETS boxes and on trains.

The stations and tunnels have emergency ventilation fans that can operate in an emergency. These fans can be controlled locally or from the ROCC to exhaust smoke from the stations or tunnels.

Emergency tunnel and evacuation carts (ETEC) (manually propelled) and motorized ETEC carts are strategically located throughout the Metrorail system.

3.4.4 Additional Safety Features

- In addition to the ETS emergency phones, there is a direct phone line between each kiosk and the ROCC.

  The public address system provides direct communications from controllers in ROCC or the Station Manager from the kiosk to passengers in the stations, and from the train operators to customers in the trains.

  The PA system is used to provide emergency instructions on the safe and proper use of the Metrorail system and to make other general announcements.

- Lights are installed along the granite edge of station platforms, which flash to alert passengers when a train is arriving, thereby decreasing the tendency for passengers to stand at the platform edge to watch for the train.

- Detectable tiles are located on station platforms adjacent to granite edges to alert customers that they are approaching the edge of the platforms.

- Drainage Pumping Stations (DPS) - There are 58 pumping stations in the Metrorail system to control water accumulation in tunnels caused by rain, street runoff and groundwater seepage.

  Each pumping station includes a lead pump and a lag pump either of which can carry the pumping load independently.

  Lag pumps and high water level sensors provide alarms to the ROCC if, there is a malfunction or an excess accumulation of water.

- Roadway (ROW) and Elevated Structure Safety Provisions - six-foot high, chain-link fences topped with barbed wire have been installed on both sides of all at-grade Roadways to prevent trespasser access to the Roadway.

Safety railings (on both sides) and safety walks have been installed on all elevated structures to protect personnel from falls and to allow clear passage of personnel and trains.

ETS boxes with emergency phones are located approximately every 800 feet along the Roadway.

- Common Corridor Safety Provisions - On routes where Metrorail shares a common corridor at grade with other freight/commuter properties, an Intrusion Detection and Warning (IDW) system is attached to the Roadway fences.

  The IDW consists of a frangible cable fastened along the fence, and an alarm display on computer monitors in the ROCC that signals the track and zone if any intrusion occurs.

  The IDW is interconnected with the ATC so that trains are stopped prior to entering the area of intrusion.

  Derailment/dragging equipment detectors are installed on the CSX tracks.

  Hot Box detectors are provided along the railroad Roadway in approach to the common corridors. CSX/ROCC Hot Line telephones installed in ROCC and the railroad control towers allow immediate contact between the common corridor operations. If a fire or other common corridor emergency were reported to the ROCC, action would be taken to notify fire department and emergency response crews.

- Emergency Exits - Emergency exits are provided in vent shafts at single entry underground stations vent and fan shafts, and in emergency exit shafts between underground stations.

  With three exceptions, the maximum travel distance to an exit from the underground system is 1,250 feet.

  In single entrance underground stations, the emergency exit is located in the vent shaft at the end of the station, furthest from the entrance.

  There are 130 emergency exits in the Metrorail system.

- Passenger Information Display System (PIDS) - This system provides up-to-date information regarding elevator availability status, system delays, emergency information, and information regarding approaching and arriving trains.

- Kiosk Information Display System (KIDS) - This system provides customers with major transit information, service disruptions and alerts prior to entering the station.

- An emergency telephone system is installed in Metro parking structures.

3.4.5 Plant Maintenance Physical Plant (PLNT)

In addition to the responsibility for maintenance of all bus and rail related facilities, PLNT operates nine facilities housing storage, shops and offices.

PLNT's headquarter offices are located at the Carmen E. Turner Maintenance and Training Facility (CTF) in Hyattsville, MD. PLNT's field bases are located throughout the Metro system.

WMATA's largest facility is the CTF facility; it is a 640,000 sq. ft. building located on 28 acres of land at 3500 Pennsy Drive in Hyattsville, MD.

Rail, BUS, IBOP, ENG, SAFE, AQAP, OEM$_M$, HR and CSCM are assigned space in this facility. The current ROCC, located at CTF, opened in September 2011.

3.4.6 Metrobus Physical Plants

The Metrobus system operates approximately 138,000 daily miles through the jurisdictions of Northern Virginia, the District of Columbia and Maryland. It consists of four (4) urban and five (5) suburban divisions as follows:

Division	**Location**
Bladensburg	2251 26th Street, NE Washington, DC 20018
Four Mile Run	3501 S. Glebe Road Arlington, VA 22202
Landover	3433 Pennsy Drive Hyattsville, MD 20785
Montgomery	5400 Marinelli Road Rockville, MD 20852
Northern	4615 14th Street, NW Washington, DC 20011
Shepherd Parkway	2 DC Village Lane, SW Washington, DC 20032
Southern Avenue	1301 Boone's Hills Rd. Coral Hills, MD 20743

West Ox Road	4970 Alliance Drive Fairfax, VA 22030
Western	5230 Wisconsin Avenue, NW Washington, DC 20016

These divisions serve as dispatching points for bus service and provide cleaning, inspection, preventive, corrective and warranty maintenance of buses to ensure that safe, clean and reliable buses are available to meet ridership demands.

CNG maintenance facilities are located at the Bladensburg Division located at 2251 26th Street, NE, Washington, DC, the Four Mile Run Division located at 3501 South Glebe Road, Arlington, VA, and CTF.

Metrobus has two (2) heavy repair shops located at CTF and the Bladensburg Facility.

The CTF Heavy Overhaul Shop is responsible for performing major corrective maintenance including engine and transmissions rebuilds and major repairs of damaged buses.

The Bladensburg Heavy Overhaul Shop is responsible for the Heavy Maintenance Overhaul Program, which brings the buses up to the latest standards and specifications.

The Office of Bus Maintenance (BMNT) maintains a non-revenue vehicle fleet of over 2300 vehicles and support equipment at the Bladensburg, Carmen Turner, and Eisenhower Avenue service vehicle shops.

Non-revenue service vehicle body repair work and new vehicle and equipment replacement is performed at CTF.

3.4.7 Bus Fleet

WMATA operates the sixth largest bus fleet in the United States with 1,583 active buses as of November 2016 of which 65, or 4.1% are articulated buses and 1,518 are mini, small or standard size buses.

The number of buses in WMATA's Metrobus fleet is determined by the projected annual bus schedule requirements with additional spares, to account for buses in maintenance and inspection or awaiting repair.

The average age of the active bus fleet was 6.29 years, as of November 2016.

All Metrobuses are air-conditioned, equipped with two-way radios for emergency communication, video cameras, drive cam systems, fire suppression systems, kneeling features and wheelchair capabilities.

Bus operator protective shields are currently installed on 483 buses and the specification for all new buses includes this requirement.

Metrobuses are 100% accessible for the elderly and disabled.

The buses have silent alarms, emergency engine shutdown switches, and flashing lights located around the roof area that can be activated to alert police agencies for operator/passenger protection.

The Metrobus fleet is composed of the following power trains: Diesel, 3.2%; compressed natural gas (CNG), 29.1%; Hybrid, 58.7%; and Clean Diesel, 9%.

The sub-fleets include buses manufactured by: New Flyer, Orion, and NABI and, with model years ranging from 1997 to 2016.

There are six (6) buses in the special and historical fleet.

As of November 2016, there were 1583 active buses, the peak service level was 1241 buses, and the total fleet consists of 1594 buses.

3.4.8 Metrobus Safety Capabilities

- S-1 Guards (installed in front of right rear wheel);
- On–board video recorders and cameras;
- Silent alarm that can be activated by operator (Destination Sign Changes to “Emergency Call Police”);
- Fire extinguishers;
- Window emergency exit latches;
- Flashing crime alert lights;
- Fire suppression/CNG warning system;
- Brake/door interlock system;
- Emergency entrance and exit door releases;
- Passenger seats with lumbar support;
- Dashboard glare reduction;
- Anti-microbial bus seat material;
- Slip resistant bus flooring;
- Shatterproof bus windows; and
- Driver Protection Barriers.

WMATA’s active bus fleet is equipped with Closed Circuit Television Cameras (CCTV).

The bus CCTV system is comprised of between five (5) and nine (9) cameras depending on the sub-fleet configuration and records video on both the interior and exterior of the bus.

The CCTV system acts as a deterrent against illegal or improper behavior on-board the bus, vandalism, theft, assault, etc. It can also be used as an investigative tool in the event of an occurrence on or outside of the bus relating to incidents such as injury claims, accident claims and general customer complaints.

All WMATA's buses are also equipped with the DriveCam system, which is a comprehensive fleet safety and risk management program.

This system assists with improving Metrobus safety by documenting incidents and assisting operators to develop safer, more efficient driving habits.
As part of an ongoing contract, the contractor will review and analyze video footage; and provide feedback on operator driving habits.

The system detects when an operator makes a defensive move to avoid an accident, brakes or accelerates suddenly, turns sharply or is involved in an accident.

The analysis is provided to management, supervisors, trainers and operators and is used to encourage good driving habits, correct poor habits, and assist in investigations.

WMATA's executive leadership is committed to retrofitting a large portion of the bus fleet with bus operator protective shields, at targeted division locations and serving targeted lines as warranted by risk assessment and MTPD crime data.

To date, bus operator protective shields are installed on 483 buses and the specification for all new buses includes this requirement.

3.4.9 BMNT Training

BMNT has a training office located at CTF where training is provided for BMNT maintenance employees.

BMNT has a technical skills program designed to train employees with limited education and/or experience in technical fields that do not otherwise meet all of the requirements currently identified for placement in WMATA's maintenance positions.

The BMNT training office also has a nine (9) week training program for new maintenance employees with two (2) days devoted to Safety Training conducted by the Office of SAFE. Some system-wide training is also provided if space permits.

After this initial training, mechanics are required to complete 40 hours per year of refresher training.

This refresher training reinforces previously acquired knowledge and skills with special emphasis on safety.

Additionally, annual field safety training is provided on hybrid and CNG buses as well as Service Lane Operations.

3.4.10 Administrative Facility

The primary administrative facility for WMATA is the Jackson Graham Building located at 600 Fifth Street, NW, in Washington, DC.

The Jackson Graham Building (commonly known as JGB) houses the backup Operational Control Center for Metrobus and Metrorail, and serves as WMATA's administrative headquarters. PLNT manages and maintains the Jackson Graham Building.

3.4.11 Support Services Physical Plant

The Stone Straw Building is located at 900 Franklin Street, NE, Washington, DC. The building is a multipurpose facility that houses WMATA's reproduction facilities, central records and marketing storage and is managed and maintained by PLNT.

The Metro Supply Facility (MSF) is located at 8201 Ardwick-Ardmore Road in Hyattsville, MD and is managed by the Office of Supply Chain Enterprise Services (SCES).

Inventory Management, Classification, Warehousing, Purchasing, QICO Incoming Inspection, Logistics and Surplus Property Disposal are also located at this facility.

SCES also manages the Open Materials Storage facility for surplus property disposal located at 3360 Pennsy Drive in Hyattsville, Maryland.

The Revenue Collection Facility (RCF) located at 3301 Eisenhower Avenue, Alexandria, VA houses the revenue operations of the Office of the Treasurer (TRES) and private security firm.

The Metro Transit Police Firearms Training Facility is located at 6650 Metro Access Road, Springfield, Virginia which across from the District II Substation.

The Metro Transit Police Criminal Investigations Division is located in the Metro Supply Facility Building (MSF).

The Metro Transit Police Special Operations Division is located at Auth Place, Camp Springs, Maryland.

The Metro Transit Police District I Substation is located in the Marlon F. Morales Building near the Fort Totten Metrorail Station.

The Metro Transit Police District II Substation is located at 6654 Metro Access Road, Springfield, Virginia, which is adjacent to the Franconia-Springfield Station.

A support facility located at 195 Telegraph Road in Alexandria, Virginia houses offices and shops for SMNT.

The Security Operations Control Center (SOCC) is located at 3421 Pennsy Drive, Hyattsville, MD.

3.4.12 Maintenance, RAIL

Maintenance of all Rail Services (RAIL) equipment, namely rail vehicles, roadway maintenance machines, fixed equipment and Support Services (SSRV) facilities, is performed in accordance with manufacturers' manuals, codes, standards and established procedures.

The overall philosophy is to maintain a level of readiness that will ensure safe, efficient and reliable mass transit.

Maintenance groups maintain a database (MAXIMO) to track scheduled maintenance of vehicles and equipment.

Safety critical equipment that does not meet established requirements is withdrawn from service.

Equipment or vehicles that are involved in an accident are removed from service until a complete inspection is conducted.

Equipment or vehicles are returned to service only after it is determined that no defects contributed to the accident.

SAFE is notified when safety critical equipment is removed from service and of accidents via the SMS$_M$. MAXIMO also interfaces with SMS$_M$.

SAFE reviews the supplied information and enters identified hazards into the Hazard Management Matrix. Also, see Section 6 of the SSPP.

All maintenance organizations provide preventive maintenance on a scheduled basis and maintain crews at strategic locations to ensure rapid deployment, recovery and return to service in the event of an emergency.

The Maintenance Operations Center (MOC) is responsible for coordinating and monitoring all maintenance personnel and equipment responding to emergencies, revenue train delays, unusual occurrences, equipment, and facility malfunctions having the potential to disrupt or affect revenue service on the rail and bus systems.

MOC is also responsible for monitoring all maintenance activities performed by PLNT, TRST and SMNT and all emergency maintenance or preventive maintenance affecting the configuration of wayside equipment, during revenue service hours.

The activities of the MOC are performed in accordance with Operations Administrative Procedures (OAP) No. 200-2, Maintenance Operations Center. The MOC notifies SAFE in the event of accidents and incidents, including hazardous substance releases. SAFE enters any identified hazards into the Hazard Management Matrix.

The performance of preventive maintenance activities on all rail vehicles, roadway maintenance machines, and wayside equipment is performed in accordance with OAP 200-3, Preventive Maintenance on Revenue Vehicles and Wayside Equipment.

Unless directed otherwise by the appropriate AGM, approved preventive maintenance procedures must comply with manufacturers recommended maintenance practices.

Corrective and supportive maintenance activities adhere to guidelines established by the following OAPs: 200-5, Corrective Maintenance, 204-1, Test Equipment Calibration, 208-1, Track Maintenance Management, Maintenance of Way and CMNT SOPs 1.04, Documenting Corrective Maintenance Work Orders, 1.05, Preventive Maintenance Work Orders for Rail Vehicles, and 1.06, Deferred Maintenance Work Orders for Rail vehicles.

Calibration of test measurement and diagnostic equipment (TMDE) is performed in accordance with OAP 204-01, Test Equipment Calibration.

The Superintendent of the SMNT Shops and Material Support Branch is responsible for maintaining the Metrology Laboratory and all test equipment for the calibration of wayside equipment.

The Superintendent of the CMNT Shops is responsible for the calibration of TMDE in accordance with CMNT SOP 3.05, Procedures for Precision Measuring Devices Shop Equipment.

QICO monitors the effectiveness of the calibration process and periodically review the scheduled compliance reports. They also periodically review the documentation of all maintenance and repair processes.

As part of the federally mandated Internal Safety & Security Review (ISSR), or “internal safety review” process, maintenance records are regularly reviewed by SAFE for compliance.

3.4.13 Maintenance, BUS

The mission of BMNT is to provide safe, clean and reliable buses for the riding public and to ensure that WMATA’s Non-Revenue Fleet of Vehicles are maintained in a safe, reliable, equitable and cost efficient manner.

Maintenance of the revenue fleet (buses), all Authority service vehicles (non-revenue), equipment and facilities is performed in accordance with manufacturer’s manuals, codes, standard operating procedures, service bulletins,

Standard Operating Procedures are in place for Preventive Corrective Maintenance Programs, Operational, Administrative, Inventory Contract and Facilities Equipment policies for all revenue and non-revenue vehicles and equipment. Service Bulletins cover the bus power train, body, preventive maintenance, electrical, chassis, air system, HVAC and various support topics.

Standard Practice Bulletins are in place for Division and Heavy Overhaul Shop procedures and Bus Fire Safety Practices.

The Maximo database is used to track scheduled maintenance of vehicles, (revenue and non-revenue) and equipment. Safety critical equipment that does not meet established requirements is withdrawn from service.

Equipment or vehicles that are involved in an accident are removed from service until a complete inspection is conducted.

Equipment or vehicles are returned to service only after it is determined that no defects contributed to the accident.

The Bus Operations Communication Center (BOCC) is responsible for coordinating and monitoring all personnel and bus service, responding to emergencies, incidents, service delays and unusual occurrences that have the potential to disrupt or affect revenue service.

3.5 Integration of Safety Function

The safety function is integrated throughout all operations and activities of the Authority.

This is aligned with, and in a planned, concerted effort ensures conformance to, a Safety Management System (SMS) approach.

Safety functions and safety responsibilities are delegated from the Board of Directors via the System Safety Policy Statement (see exhibit 1-1) to the GM/CEO. The GM/CEO delegates safety functions and safety responsibilities to the CSO and the Executive Management Team (EMT), who are responsible for implementing the requirements of this SSPP in their assigned departments.[1]

The EMT delegates that senior managers include safety requirements, responsibilities and objectives into the departments or offices business and performance management plans of managers and supervisors.

For more information relative to the SMS management philosophy and how the FTA envisions it will be integrated throughout the transit industry, visit the FTA's website at www.fta.dot.gov

Managers and supervisors are held accountable by the performance management process for achieving their operational and maintenance objectives in a manner that ensures the safety of Metrorail and Metrobus facilities, equipment and systems, and MetroAccess contracted services.

Safety performance is measured through the monthly tracking and corporate reporting of indicators such as bus, rail and MetroAccess passenger injuries and vehicle accidents and employee injury rates.

The SSPP serves as a blueprint for the organizational integration of the safety function and its effective implementation ensures the integration of the safety function throughout the Authority.

3.6 Lines of Authority for Safety

The lines of authority for safety are based on the responsibilities established by the WMATA Board of Directors System Safety Policy Statement in exhibit 1-1.

The GM/CEO designates the CSO (SAFE) to oversee the implementation of the safety management functions of the various WMATA departments.

SAFE also develops, publishes and maintains the SSPP and works with members of the EMT to ensure the effective implementation of the SSPP throughout the Authority.

The safety responsibilities and functions of the EMT are described in the sections below.

Members of the EMT are identified as (EMT) after their job titles, which demonstrates the lines of authority for safety throughout the organization.

3.7 Organizational Safety Responsibilities

The Board of Directors has charged the GM/CEO with implementing the WMATA System Safety Program, which consists of four distinct efforts:

- System Safety (Rail, MetroAccess, and Bus).
- Construction Safety.
- Fire Protection and Emergency Management.
- Environmental Management and Occupational Safety and Health.

Appendix E illustrates the SAFE Organization.

The Board of Directors provides management oversight of the implementation of the WMATA System Safety Program Plan through safety reports provided to the Board Safety and Security Committee.

The following information is available to the Board Safety and Security Committee:

- Monthly safety and security reports;
- Hazard Management Reports;
- Accident/Incident Reports and written follow-up reports;
- Briefings on investigations of fatalities;
- Revenue derailments; and
- Collisions resulting in $25,000 or more in property damage and on accidents investigated by the NTSB and/or the FTA.

3.7.1 Department of Safety and Environmental Management

The Chief Safety Officer (CSO), Department of Safety and Environmental Management (SAFE) (EMT) reports directly to the GM/CEO.

The CSO has been delegated specific responsibilities, by the GM/CEO, for the management of system safety, occupational safety and health, accident and incident investigation, the continuous hazard management process and the internal safety and security review process.

Additionally, the CSO has responsibility for oversight of construction safety, safety and security certification, safety data collection and analysis, close call reporting, fatigue risk management, industrial hygiene, safety training, safety program implementation, regulatory compliance, environmental protection, and monitoring the implementation of the System Safety Program Plan (SSPP).

SAFE interfaces with all WMATA departments at all levels of the organization, serving as a technical advisor in support of WMATA's adoption of the SMS philosophy.

The CSO meets with the GM/CEO on an as-needed basis to provide updates on safety issues, safety priorities and hazard management.

The CSO participates in the weekly EMT meetings to update the EMT on safety priorities, safety issues, and hazard management, and to communicate safety-related information across all WMATA departments, including the effects of budget reductions and resource constraints on the performance of safety-related maintenance activities and requirements. These issues may be addressed in more depth at the monthly Executive Safety Committee (ESC) meetings.

The GM/CEO, ESC and the EMT receive monthly safety reports generated from the Safety Measurement System (SMS_M) including accident and injury data and the Corrective Action (CAP) Tracking Log.

This information will keep the GM/CEO, EMT and members of the ESC apprised of progress in implementing corrective actions and recommendations from investigations, safety and security reviews and the Hazard Management Process.

SAFE reviews all safety related departmental procedures including:

- WMATA Policy/Instructions;
- Department of Operations Administrative Procedures (OAP);
- Project management procedures;
- Financial policies and procedures;
- Human resources policies and procedures; and
- Procurement policies and procedures.

SAFE also promulgates and monitors adherence to Authority-wide Safety Rules and Procedures.

The CSO and SAFE designees have the authority to direct that work or conditions, determined to be unsafe, or pose a hazard to customers, employees, contractor employees, the public or endangers the safe passage of trains, paratransit vehicles or buses, be suspended or restricted, until the unsafe condition or hazard can be mitigated or corrected. Interim corrective actions are required for serious and unacceptable hazards.

The FTA (corrective actions for rail only) must approve permanent corrective actions prior to formal implementation by COO.

The FTA reserves the right to require certain corrective actions in the form of an issued Safety Directive, whether directed at WMATA or the industry at-large.

SAFE monitors and tracks the implementation of all corrective actions in accordance with 49 CFR Part 659 and the FWSO Oversight & Surveillance Plan.

3.7.2 Internal Business Operations (IBOP)

The office of Internal Business Operations (IBOP) is comprised of four primary internal business operations that play integral roles in supporting all program operating components of WMATA.

The four internal business units are:

- Human Resources;
- Information Technology;
- Labor; and
- Procurement.

These offices provide leadership, direction and support to offices throughout the Authority, delivering high quality services and promoting principles and practices of fairness and merit.

The Department implements and supports information management solutions, provides acquisition services support and manages unionized employment matters.

3.7.2.1 Department of Human Resources (CHRO)

The Chief Human Resources Officer (CHRO) reports to the Chief of Internal Business Operations (IBOP) and is responsible for:

- Talent Acquisition;
- Employee Relations;
- Talent Management;
- Information Management;
- Compensation & Benefits;
- Project Management; and
- Occupational Health and Wellness.

Occupational Health and Wellness (OHAW) has the responsibility for administering the Substance Abuse and Employee Assistance Programs; and maintaining compliance with the FTA alcohol and drug testing regulations.

OHAW also provides medical surveillance for occupational illness when the need is identified by studies performed by Environmental Management and Industrial Hygiene (EMIH).

3.7.2.2 Office of Information Technology (OIT)

The Department of Information Technology (OIT) provides information technology and telecommunication services to support WMATA's strategic goals including safety, customer service, transparency and decision support.

IT implements solutions throughout WMATA; promotes compatibility, integration and interoperability; and develops and enforces information technology policy and standards throughout the authority.

IT also researches and implements new technology systems to enhance transit services and fare collection and support the Authority.

IT is also responsible for maintaining all electronic, interactive and integrated services for all of SAFE's SMS_M applications.

IT provides and supports the following:

- PCs and PC access;
- Internet and Intranet access;
- Telephone Systems;
- Applications for Emergency Command Center;
- Notification of system outages for internal and external customers;
- Data warehousing for incident, safety and health management;
- Passenger Information Display Signs (PIDS);

- Rail Operations Control System (ROCS);
- Maintenance employee real-time locator;
- Statistical data;
- 24 x 7 Support;
- Automatic Train Control;
- Elevator and escalator status and notifications; and
- Ridership real-time reports.

3.7.2.3 Office of Procurement and Materials (PRMT)

The mission of the Office of Procurement and Materials (PRMT) is to provide expert, professional acquisition services in support of the transportation service needs of customers across the jurisdictions serviced by the Washington Metropolitan Transit Authority (WMATA), while maintaining compliance with federal and local agency procurement laws and regulations.

PRMT is responsible for procuring contract services and for maintaining an inventory of materials to support the Metrorail and Metrobus systems.

PRMT works with SAFE and user organizations to control the purchase of chemicals, hazardous materials, safety critical parts and materials and to ensure that safety requirements are included in WMATA vendor, service and construction contracts.

3.7.2.4 Office of Employee and Labor Relations (LABR)

The Director of the Office of Employee and Labor Relations (LABR) reports to the Internal Business Operations Chief (IBOP).

The mission of LABR is to engage professionally and responsibly with the recognized labor organizations that represent Metro employees and to forge productive working relationships and achieve effective results that are grounded in respect for all parties and consistent with the Authority's business goals and objectives.

The office is committed to proactive labor relations and a problem-solving approach to resolve disputes that arise under WMATA's five collective bargaining agreements. LABR's responsibilities include:

- Negotiating labor agreements, which serve the strategic, economic and organizational goals of the Authority;
- Providing guidance and training on the implementation and interpretation of collective bargaining agreements;
- Providing guidance and advice on Authority policies and procedures that affect our unionized workforce;
- Investigating and resolving formal and informal grievances and disputes with our unionized workforce;
- Representing the Authority in grievance arbitration cases; and

- Planning, preparing, and overseeing interest arbitration efforts under the terms of the WMATA Compact, in the event of negotiation impasse.

3.8 Office of External Relations (EXRL)

Metro's External Relations Office (EXRL) is an independent office that reports directly to the General Manager and Chief Executive Officer (GM/CEO), overseeing stakeholder relationships, developing and implementing the agency's strategic plans and goals, and leading agency-wide programs, as well as providing administrative support to internal agency staff in its day-to-day operations.

Offices reporting to the EXRL include Government Relations and Customer Service, Communication and Marketing.

The mission of the Office of External Relations (EXRL) is to lead the communications, marketing and outreach functions of major projects and initiatives, and build and maintain stakeholder relationships with:

- Customers;
- Employees;
- Elected Officials;
- Jurisdictional, Federal Agencies;
- Community and Civic Groups;
- Business Community; and
- Board of Directors.

External Relations' immediate priorities include building public and stakeholder support and trust through communications and outreach for the Customer Accountability Report (CARe), SafeTrack, financial reforms, and management reforms; building and maintaining relationships with funding jurisdictions, federal agencies, and regional businesses; and growing support for sustainable funding.

3.8.1 Department of Customer Service, Communications and Marketing (CSCM)

The Assistant General Manager, Customer Services, Communications and Marketing (AGM/CSCM) (EMT) reports to the Chief of External Relations and has responsibility for internal and external communications, marketing and advertising customer service and customer research.

The CSCM team proactively develops key messages and communication strategies to ensure a consistent approach to internal and external communications.

The group also is responsible for informing customers about various projects that will affect Metro service, evaluating and implementing new communication technologies, communicating information about Metro operations and policy to employees via the intranet and producing the monthly employee newsletter.

3.8.1.1 Office of Customer Service (CSVC)

The Office of Customer Service (CSVC) is responsible for the Customer Information Call Center, Customer Relations Branch, Social Customer Care and Lost and Found.

Customer information agents provide customers with ridership information regarding Metrobus, Metrorail and regional and local transit systems. This includes trip planning assistance, Bike-on-Rail assistance, parking information and Lost and Found.

Customer safety concerns and complaints received by CSVC are submitted to SAFE for review and resolution. A customer service representative creates a case number and forwards the case to the appropriate division/department and SAFE. Complaints are partitioned into pieces when a safety concern is combined with a non-safety concern.

CSVC and SAFE track these concerns and complaints to closure.

SAFE enters any identified hazards into the Hazard Management Matrix.

3.8.1.2 Office of Marketing and Advertising (MKTG)

The Office of Marketing (MKTG) draws on the skills, creativity and expertise of the marketing staff and Metro's advertising agency, to provide information and position Metro as the transportation choice in the region.

WMATA marketing communications are designed from concept to execution to attract new customers and revenue to Metro services and products and encourage expanded use of the system among existing customers.

3.8.1.3 Office of Customer Research (RESR)

The Office of Customer Research is charged with gathering and communicating customer opinions to improve Metro's services and programs, and providing decision-makers with customer input.

To gain input information, this office:

- Oversees a customer satisfaction survey of Metrobus, Metrorail, and MetroAccess riders;
- Manages a Mystery Rider program to provide independent assessments of bus and rail services;
- Oversees qualitative and quantitative research to identify customer preferences and opinions, and provides customer input in Metro policy decisions;

- Serves as an advisor to internal staff seeking guidance on customer opinions; and
- Provides customer metrics for program changes and initiatives undertaken by Metro.

3.8.1.4 Media Relations (MREL)

The Media Relations (MREL) team is responsible for responding promptly to news media inquiries and providing accurate information.

All media calls to any Metro employee about Metro business and issues should go through Media Relations first.

The Media Relations office is the official "spokesperson" for the General Manager and other Metro offices. Media Relations is also responsible for handling filming requests, publishing Metro Weekly and providing a wide range of photographic services to meet Metro's needs for professional images.

3.9 Office of Government Relations (GOVR)

The mission of the Office of Government Relations (GOVR) is two-fold:

1. To provide information and resources to our internal stakeholders (Board of Directors and staff) on important governmental issues that affect the Authority.

2. To build relationships with our funding partners in federal, state, and local governments.

Ultimately, by successfully fulfilling this mission, we are able to assist the Authority in keeping abreast of current government policy and in obtaining sufficient funding, so that WMATA can best provide safe and efficient public transportation to the National Capital region.

GOVR activities include:

- Securing federal, state and local funds to support WMATA’s operating and capital budgets;
- Communicating Authority programs, policies and positions to federal, state and local officials and stakeholders;
- Acting as a resource to the Board and staff and disseminating information on federal, state, and local government issues and activities—including legislation and regulations—that affect the Authority or our customers;
- Working with federal, state and local governments to affect policy changes—through meetings, hearings, legislation, and regulations—that are of benefit to the Authority and transit riders;
- Educating elected and appointed officials and their staff on issues of importance to WMATA;

- Coordinating with all WMATA offices to respond to issues raised by elected officials, community groups, and stakeholders;
- Working with a number of advocacy groups on a broad range of policy issues, including transportation, safety and security;
- Coordinating a variety of planning, land use, operations, construction, permitting, and other activities with state and local entities, including our transportation partners; and
- Assisting the Washington region in planning its transportation and security needs.

3.10 Chief Capital Planning and Program Management (CPPM)

The Office of Chief of Capital Planning and Program Management is responsible for direct oversight of the Capital Program and the design, construction, planning and environmental programs for WMATA.

Additionally, the Chief Engineer is also responsible for the effective and efficient management and daily oversight in the following areas: planning and project development, engineering services, personnel administration and ongoing capital program policies development and refinement.

3.10.1 Asset Mission Assurance (AMA)

AMA is a corporate level continuous improvement organization built upon mission assurance methodology that is designed to establish and develop core principals in asset management, asset lifecycle management, maintenance strategy and standardization based upon industry best practices, law, and regulations.

3.10.2 Office of Planning (PLAN)

PLAN’s mission is to lead the Authority's efforts to serve as the region's transit leader, to develop and pursue a long-range vision for the Compact as a sustainable, transit-connected community, to represent the Authority in regional and local planning activities, and to identify, analyze, and advance transit projects that are best aligned with the Authority's vision and goals.

PLAN is composed of five branches: Regional Planning and Coordination, Systems and Capital Planning, Access Planning and Policy Analysis, Sustainability and Strategic Planning.

3.10.3 Office of Capital Program Delivery (CPDO)

CPDO supports the overall mission of WMATA to deliver projects and supports the overall mission of WMATA to deliver high quality, safe, reliable and efficient transportation options throughout the DC Metro region by delivering Capital Projects within scope, schedule and budget.

3.10.4 Capital Program Management Office (CPMO)

CPMO's mission is to develop and maintain project management processes and standards to establish a consistent and repeatable approach to project delivery across all departments delivering capital projects; provide full and accurate visibility of project status; provides cost estimation, project controls, and configuration management for projects.

CPMO consists of the following groups: Systems, Contract Management, Project Control, Project Estimates and Payment Review.

3.10.5 Office of Major Capital Projects (MCAP)

MCAP is responsible for ensuring that proper capital investments are made to support the safe operations of the Metro system.

Under direction of Office Director, MCAP is responsible for engineering, design and construction of bus garages, parking structures, MTPD substations, yards, maintenance bays, shops, and other facilities to support Metro System operations.

3.10.6 Office of Infrastructure Services (CENI)

CENI supports the overall mission of WMATA to provide safe, reliable and efficient transportation options throughout the DC Metro area by providing engineering and project management services for infrastructure renewal and adjacent construction.

In addition, the CENI groups work closely with Maintenance and Operations to ensure the transit system is well maintained and any engineering issues on existing systems are properly evaluated and remediated.

3.11 Chief Financial Officer (CFO)

The Department of the Chief Financial Officer (CFO) is responsible for the financial integrity and the administrative functions of Metro, including the collection of revenues and other income, purchasing all goods and services required by the Metro, accounting for the financial transactions of assets and liabilities, and planning and development.

In addition, the CFO is responsible for the Offices of Accounting, Treasurer, Management and Budget Services, the Office of Real Estate and Station Planning, Federal grants management, as well as, cash and risk management.

The CFO, through the Office of Procurement and Materials (PRMT), has the responsibility for ensuring that only chemical and hazardous materials approved by SAFE are carried in WMATA inventory and that the requesting organization has coordinated safety and environmental requirements of contracts with SAFE, BUS, and COO prior to advertisement.

3.11.1 Office of Management and Budget Services (OMBS)

The Office of Management and Budget Services (OMBS) is responsible for the following:

- Preparation and administration of the annual operating budget and six-year capital budget;
- Finance and Administration Committee presentations and briefings;
- Budget, revenue and ridership variance reporting and analysis;
- Financial presentations to the Board and external communication with local Governments;
- Calculation of annual subsidy by transit mode (Bus, Rail and Access); and
- Provide financial analysis for labor negotiations.

3.11.2 Office of Accounting (ACCT)

The Office of Accounting (ACCT) is responsible for financial systems and reporting, financial control, payroll, accounts payable and financial management services.

3.11.3 Office of Treasurer (TRES)

The Office of the Treasurer (TRES) is responsible for the collection and processing of revenues, investment of excess cash, debt issuance and management, financial risk management, fare media sales and distribution, and the implementation of fare media related technology projects.

Treasury Operations is responsible for the Authority's cash management, including check printing, check disbursement and petty cash disbursement; debt and investment management; cash forecasting; and revenue controls at the Revenue Collection Facility.

The Revenue Collection Facility (RCF) receives all revenue income from bus and rail as well as processes and distributes fare cards. The RCF is an "industrial" operation and is therefore subject to Virginia occupational safety and health and environmental regulations.

The Office of Risk Management (RISK) is responsible for controlling and financing the following categories of risk:

- Liability for bodily injury and property damage suffered by third parties;
- Liability for employee injury;
- Liability for financial loss suffered by third parties and employees; and
- Physical damage to and loss of WMATA property and assets.

RISK's third party database is a source of safety data for the Hazard Management Program.

3.11.4 Office of Real Estate and Station Planning (LAND)

The Office of Real Estate and Station Planning (LAND) leads WMATA's station access and station area planning activities, implements the joint development program, and manages WMATA's real property assets.

In all three branches of the office, the group focuses on the objectives of the System Safety Program.

Station access and station planning studies are conducted with significant coordination between LAND staff, Bus and Rail Operations, Accessibility, Transit Police, Safety and other offices to ensure that safe access is preserved and enhanced for all customers.

Similar coordination occurs in the implementation of the joint development program to ensure that proposed projects support creating safe station area environments.

Any proposed project on or near WMATA property is required to comply with all WMATA adjacent construction policies, to ensure protection of WMATA transit facilities, employees, and customers.

These same requirements extend to those entities seeking permits or easements to access or use WMATA property. As part of the review of these types of requests and transactions, LAND staff ensures that all required insurance documentation is in place to protect our facilities, employees, and customers.

3.12 Chief Operating Officer (COO)

The Chief Operating Officer (EMT) reports directly to the GM/CEO and is responsible for the safe operation and maintenance of the Metrobus and Metrorail systems and manages Bus Services (BUS), Rail Services (RAIL),Support Services (SSRV), Intermodal Strategic Planning (IPLN), Metro Transit Police (MTPD), the Office of Parking (PARK) and the Office of Performance (CPO).

The COO collaborates with the CSO and all members of the EMT to implement this System Safety Program Plan and the Safety and Security Certification Plan through the development and implementation of required plans, procedures and processes by BUS, RAIL, SSRV, IPLN, MTPD, PARK, and CPO personnel.

The COO ensures that Corrective Action Plans (CAPs) are developed and implemented by responsible personnel, in collaboration with the CSO, Internal Compliance and FTA, to (1) address recommendations from internal and external accident/incident investigations, (2) internal and external safety audit findings and recommendations and (3) to resolve hazards identified and managed through the WMATA Hazard Management Process.

The COO collaborates with the Chief, MTPD, to develop and implement the WMATA System Security Program Plan and emergency response and recovery plans to ensure that the Authority has up-to-date, effective and actionable strategies to address security threats, vulnerabilities and emergencies that occur in the Metrobus and Metrorail systems.

The COO develops, maintains, supports and promotes a high level of customer service and a safe working environment in full compliance with the Authority's safety rules, policies and procedures.

The COO monitors operating performance, facilitates problem resolution and directs efforts and programs to achieve continuous improvement in bus and rail service safety, security and quality.

3.12.1 Office of Rail Services (RAIL)

The Assistant General Manager (AGM) of Rail Services (RAIL) reports to the COO. The AGM has been delegated by the COO, to manage the day-to-day responsibility for the safe operation and maintenance of the Metrorail system.

The AGM, RAIL is responsible for the offices of Rail Transportation (RTRA), Chief Mechanical Officer, Rail (CMOR), Automatic Train Control Maintenance (ATCM), Track and Structures Maintenance (TRST), Material and Inventory Planning (MIPN), Traction Power Maintenance (TRPM), Operations Management Services (OPMS), and Reliability Centered Maintenance Planning (RCMP).

3.12.1.1 Office of Rail Transportation (RTRA)

The Managing Director of Rail Transportation is responsible for the safe operation of railcars and the primary customer facing interface for Metrorail through the Director of the Rail Operations Control Center (ROCC) and Director of Rail Station and Train Operations (RSTO).

The Managing Director, RTRA has the responsibility to provide job related safety training for RTRA personnel and to ensure compliance with the MSRPH, RWP, OAPS and applicable safety rules, instructions and regulatory standards.

The ROCC, through ROCC supervisors (controllers), provides supervision over all phases of operation including: train operations, passenger operations, schedule management, wayside equipment, third rail power, communications, alarm monitoring, command, control and coordination of emergency response and notifications in accordance with the MSRPH.

The MSRPH includes Operating Rules and Standard Operating Procedures for normal, emergency and recovery operations. The superintendent, ROCC, and assistant superintendents are responsible for day-to-day management of the ROCC.

Train operators are responsible for the safe operation of their assigned train. The Division superintendents, through the yard tower operators are responsible for the safety of all yard operations. Station Managers are responsible for the highly visible role of providing customer service to rail customers.

3.12.1.2 Office of the Chief Mechanical Officer, Rail (CMOR)

The Office of the Chief Mechanical Officer was newly created in 2016 and is responsible for providing safe and reliable rolling stock through the General Superintendent of Car Maintenance (CMNT) and the Chief Engineer, Vehicles (CENV).

3.12.1.2.1 Office of Vehicle Program Services (CENV)

The Chief, Office of Vehicle Program Services (CENV) reports to the Chief Mechanical Officer Rail (CMOR).

CENV is responsible for operations and maintenance needs of rail car vehicles.

CENV provides technical support to procurement of vehicles and contractor selection for rail car vehicles.

CENV Program Management leads and coordinates with Metro vehicle stakeholders (e.g., CMNT, PRMT, QICO, SAFE, COUN, RSTO and RTRA) for the delivery and acceptance of rail vehicles, which have met the specification requirements, outlined in the vehicle procurement requirements and that the project remains legally compliant.

Rail car system configurations are coordinated with respective departments for quality, maintenance, operators' use and safety to ensure that stakeholder's needs are incorporated and that the highest level of performance and service are delivered to WMATA customers.

CENV develops and maintains configuration controlled specifications and historical databases for rail car vehicles and configuration-controlled documents for rail car maintenance personnel.

The Reliability and Performance Analysis Branch (REPA) monitors and reports on reliability and performance of the rail car fleet.

REPA provides technical assistance to CMNT and CENV and coordinates with new car contractors on rail vehicles in test status.

The Maintenance Planning and Scheduling (MPLN) Branch provides technical support to CMNT, ELES, PLNT, SMNT and TRST for the purpose of implementing the Authority's overall preventive and corrective maintenance programs.

MPLN ensures that every asset, fixed or rolling stock is both effectively and properly maintained through preventive and corrective maintenance and that all records and data pertaining to the assets are accurate, reliable and controlled.

3.12.1.3 Office of Car Maintenance (CMNT)

The Office of Car Maintenance (CMNT) is responsible for implementing a comprehensive maintenance program for revenue rail vehicles and roadway maintenance machines that ensures the availability of safe, reliable and clean rail equipment to meet passenger demands. CMNT provides coverage twenty-four (24) hours per day, seven (7) days per week.

3.12.1.4 Office of Maintenance of Way Engineering (MOWE)

The Office of Maintenance of Way Engineering (MOWE) was newly created in 2016 and will be responsible for all maintenance of way engineering functions and the efficient planning of maintenance work to be completed through the Operating and Capital programs. This office is currently being created and is expected to start functioning in 2017.

3.12.1.5 Automatic Train Control Maintenance (ATCM)

The Offices of Automatic Train Control Maintenance (ATCM) and Traction Power Maintenance (TRPM), in the Department of the Chief Operating Officer (COO), are responsible for the control, maintenance, inspection, modification, overhaul, test and repair of the above-described systems, as well as WMATA's power distribution system including Traction Power Sub Stations, Tie Breaker Stations and facility AC Rooms.

The Automatic Train Control Branch (ATCM) ensures the availability of wayside equipment and personnel in order to guarantee continuous safe, effective and economic rail operation.

3.12.1.6 Automatic Train Control System (ATCS)

The Automatic Train Control Branch is responsible for the maintenance, repair and installation of wayside equipment.

ATC equipment provides train position, rudimentary communication between the train and wayside, and automatic control of train speed and spacing of trains.

The Automatic Train Control (ATC) system consists of the car borne and wayside train control and signal system.

The ATC system is comprised of three subsystems:

- The Automatic Train Protection (ATP) system;

- The Automatic Train Operation (ATO) system; and
- Automatic Train Supervision (ATS) system.

The ATP subsystem of the ATC System is designed to provide complete protection against collisions and over-speed conditions through the automatic block signaling system.

Effective analysis and maintenance of the ATC system is critical to ensure the continued safe operation of the system.

The ATP subsystem also provides control of interlocking's, route security through interlocking's and control of train door operation.

The ATO subsystem performs the functions of accelerating the train to running speed, regulating the train running speed, and stopping the train at proper positions at stations.

The ATS subsystem controls and supervises the routing and scheduling of the trains. The ATS subsystem also supervises and controls the transit system mechanical support and electrical power facilities.

ATC Engineering provides policies and procedures for the testing, inspection and maintenance in the ATC-1K/2K/3K documents. Each document provides guidelines in specific areas:

- ATC-1K – Mandatory safety critical inspection and test procedures (FRA regulatory compliance tests).

- ATC-2K – Guidelines for incident investigation, corrective maintenance and modification to ATC systems.

- ATC-3K – Technical procedures for ATC systems which are not covered in the ATC-1K, i.e. non-vital systems, preventive maintenance and non-periodic adjustment procedures.

ATC maintenance management policies and procedures are found in the Automatic Train Control Branch Maintenance Control Policy, Revision #3. ATC Maintenance Management provides twenty-four (24) hours per day, seven (7) days per week coverage.

The train operator can operate in manual mode with permission from the Metrorail Operations Control Center (ROCC) and in accordance with procedural controls. However, since the Fort Totten accident in June 2009, all trains are operating in manual mode until otherwise directed.

In addition, since the Fort Totten accident, the Office of Chief Engineer, Infrastructure (CENI) has increased the frequency of its track circuit data review from once every 30

days to twice daily and is conducting a deeper level of analysis with more stringent requirements.

Engineers review computerized reports after each rush hour and investigate every anomaly they identify and ATC is taking immediate actions to correct them.

In some cases, the problem can be corrected quickly, while others take more time. In the instances where repairs are lengthy, ATC may temporarily take a track circuit out of service to work on a repair. When a track circuit is disabled or deactivated for repair, trains are slowed to 15 mph through the affected area. Train operators maintain radio contact with controllers in ROCC.

3.12.1.7 Track and Structures Maintenance (TRST)

The Office of Track and Structures (TRST) is responsible for inspecting, maintaining and rehabilitating all revenue and yard tracks as well as all aerials, bridges, retaining walls and tunnels.

TRST's work includes the replacement of track components such as switches, fasteners, running rail, crossties, and insulators on ballast and direct fixation track throughout the Metro Rail System. Maintenance and inspection of WMATA's right-of-way structures, fence line and parking garages providing inspection reports for 485 mainline miles of track twice a week, 327 mainline switches, 365 yard switches monthly.

These tasks are performed by approximately 607 employees dispersed in support branches that include Production, Track and Structures Maintenance, Track Geometry and Inspections. The management structure includes three (3) Assistant General Superintendents and five (5) Superintendents.

TRST provides twenty-four (24) hours per day, seven (7) days per week coverage.

3.12.1.8 Materials and Inventory Planning (MIPN)

MIPN centralizes procurement and material logistics activities for all Rail Services departments with an emphasis on getting the right parts and services to the right departments using strategic planning and an established process to enable forecasting and procurement compliance.

MIPN forecasts all materials needed for Rail operations, manages all procurement agreements and ensures contract compliance.

MIPN services the offices of CMOR, TRPM, TRST, ACT, RTRA, OPMS and RCMP.

MIPN also collaborates with PRMT, COUN, OMBS, IT, ACCT, SCES and HR.

3.12.1.9 Traction Power Maintenance (TRPM)

The 750 volts, direct current (DC) traction power system provides the power source for vehicle propulsion.

The traction power system includes the contact and running rails, associated conductor system, power substations and tiebreaker stations, including transformers, rectifiers and switchgear for conversion and supply of power to the contact third rail system.

Each segment of contact third rail may be supplied by adjacent power substations, and is supplied by separate power company substations, wherever practicable, for additional reliability.

A 480/277 volt alternating current (AC) auxiliary power system provides for lighting, heating, ventilation, air conditioning, escalators and elevators, communications, train control systems, fare collection equipment, emergency power systems, illuminated signs, clocks, alarms, station closed circuit television (CCTV), public address (PA) systems, and pumping stations.

Reliability and safety features are provided in the distribution system to prevent loss of power for essential loads (train control, lighting, and communications) due to transformer over temperature or circuit breaker over-current conditions from either of the two power sources serving each station.

Additionally, emergency power is provided from an uninterruptible power supply (UPS) battery system to prevent loss of critical lighting, Automatic Train Control (ATC), and communications in case of a complete loss of AC power.

There are 74 permanent generators at key stations and facilities, 19 mobile, trailered generators, and 13 portable generators to provide power for safety critical equipment in the event of power loss.

The Automatic Train Control (ATC) line function is responsible for performing preventive and corrective maintenance on ATC equipment used to support revenue operation.

The Construction Inspection and Test (CIT) group performs all inspections, modifications, installation and contractor support as required to upgrade the existing system to provide greater safety and reliability to the system.

The Power Branch is responsible for the maintenance of all WMATA AC and DC power electrical facilities and equipment to ensure power is available for all:

- Passenger stations;
- Trains, rail yards;
- Chiller plants;
- Tunnels;
- Fan shafts;

- Bus facilities; and
- Start-up activity support.

Power personnel inspect, modify, overhaul, test, and repair power distribution switchgear, lighting systems, associated electrical equipment and cables.

The Power Branch provides seven (7) days per week, twenty-four (24) hours per day coverage of the power systems.

3.12.1.10 Operations Management Services (OPMS)

The Director, Office of Operations Management Services (OPMS) reports to the AGM of Rail Services and has been delegated responsibility for the maintenance-training program.

The Technical Skills and Maintenance Training Branch provides maintenance-training support for CMNT, PLNT, ELES, TRST and SMNT.

The Technical Skills Program is designed to train personnel with limited education and/or experience in technical fields that do not otherwise meet all of the requirements currently identified for placement in WMATA's maintenance positions.

The program that started in 2000 is designed to ensure the Authority continues to meet the objectives of safe, reliable and efficient public transportation within its jurisdiction.

The Elevator and Escalator Apprenticeship Program is a four-year training period with classroom/lab training as well as on-the-job experience to prepare apprentices for journeyman level positions.

Maintenance training support is provided for PLNT and ELES. The training support includes the coordination of refresher training for mechanics as well as new employees.

Training classes are offered to WMATA personnel throughout the calendar year.

These classes include craft training in maintenance areas including electrical/electronic fundamentals, wiring and soldering techniques, hydraulic and pneumatic principles, basic industrial controls, mechanical principles, hand-tool and power-tool operation and safety, symbols and schematic diagram reading as well as systematic electrical troubleshooting.

3.12.1.11 Reliability Centered Maintenance Planning (RCMP)

The Reliability Centered Maintenance Planning group supports the Office of Rail Services to ensure that every asset, fixed or rolling stock, is maintained properly through an effective maintenance program.

RCMP plans and schedules the maintenance of assets, as well as report on the reliability and performance of the rail car fleet and supporting rail infrastructure.

3.12.2 Department of Bus Service (BUS)

The Assistant General Manager for the Department of Bus Service (AGM/BUS) (EMT) reports to the Chief Operating Officer.

The AGM/BUS is responsible for the safe operation and maintenance of the Metrobus system, the maintenance of the non-revenue vehicle fleet, vehicle (bus) engineering and bus procurement.

This effort is coordinated with SAFE and PLNT to ensure that hazards are quickly and effectively eliminated.

The AGM/BUS has the responsibility to provide job-related safety training for BUS personnel and to ensure compliance with applicable safety standards and rules.

Safety related procedures for Metrobus operations and maintenance are included in the BSEH, SOPs, Standard Practice Bulletins, Service Bulletins and the OAPs.

The Bus Operations Control Center (BOCC) acts on operator requests for maintenance or emergency assistance and coordinates accident responses by WMATA and local emergency personnel.

The BOCC also coordinates bus service support required because of extended disruption of Metrorail service. The BOCC is staffed twenty-four (24) hours per day, seven (7) days per week.

The BOCC Director is responsible for the administrative management of the Bus OCC.

Through radio and telephone equipment, the BOCC has direct communication with the following:

- Mayor’s Command Center;
- Bus operators;
- Division operations and maintenance personnel;
- Bus support offices;
- Plant Maintenance;
- Local Fire/Rescue Communication Centers, Metro Transit Police and local police;
- Rail Operations Control Center; and
- WMATA essential personnel.

3.12.2.1 Office of Bus Maintenance (BMNT)

The Managing Director of Bus Maintenance (BMNT) is responsible for the overall management of WMATA's Metrobus Maintenance and Engineering Organization including the development of policies and procedures, programs and initiatives to ensure cost effective and efficient management of WMATA's revenue and non-revenue fleet, bus storerooms and Bus Maintenance training and to ensure the service provided is safe, clean and reliable.

The following branches report to the Managing Director, BMNT:

- The Chief Engineer Vehicles (buses) is the prime engineering resource for all bus vehicle aspects and is responsible for the acquisition, operations, maintenance and training needs pertaining to the revenue vehicles (buses), heavy equipment and their associated systems and for completing the safety and security certification process, in concert with SAFE.

  Bus system configurations are coordinated with respective departments for quality, maintenance and operator's use to ensure that stakeholder's needs are incorporated and that the highest level of safety, performance and service are delivered to WMATA customers.

- The Technical Support Branch monitors and reports on safety, reliability and performance of the bus fleet and provides support for the purpose of implementing the Authority's overall preventive and corrective maintenance programs. This branch also ensures that the buses and their associated systems are properly and effectively maintained through preventive and corrective maintenance.

- The Director, Shop Support Services is responsible for the overall management of two (2) bus shops that provide safe and reliable components and buses through comprehensive maintenance and rehabilitation programs that enhance the condition and appearance of the buses.

- The Director, Division Maintenance Operations is responsible for the overall management of nine (9) bus divisions that ensure the availability of safe, reliable and clean buses through daily, preventive and corrective maintenance, HVAC, ADA and DC Inspections, interior and exterior bus cleaning and service lane activities.

- The Director, Non-Revenue Vehicles and Equipment is responsible for the Authority's Non-Revenue Service Fleet including vehicle and equipment acquisition, fleet and equipment maintenance, fleet utilization monitoring, parts management, fleet fueling services, disposal of fleet vehicles and equipment, performance reporting and customer service to ensure that safe, clean and reliable non-revenue vehicles and equipment are available to our internal customers.

- The Director, Technology and Business Operations is responsible for supporting electronic communications throughout BUS to ensure safe and consistent maintenance and operations of Metrobus service for the riding public. This group also manages functions that provide essential technical development and support to all of Bus Services and budgetary support for Bus Maintenance and Engineering.

- The Director, Storerooms and Material Logistics facilitates equipment and materials purchasing, contract services, quality inspection of incoming materials and warehousing to support the operations of Bus Maintenance and Engineering. This branch ensures that all chemicals and hazardous materials requested by BMNT are approved by SAFE and that safety requirements are included in WMATA vendor and service contracts.

3.12.3 Office of Support Services (SSRV)

The Office of Support Services (SSRV) supports Metrobus and Metrorail operations and maintains infrastructure and equipment systems in a good state of repair by providing a coordinated approach to maintaining rail rolling stock, elevators and escalators, electro-mechanical equipment systems, infrastructure, facilities and grounds.

3.12.3.1 Office of Supply Chain Enterprise Services (SCES)

The Director of SCES reports to the Managing Director of Support Services (SSRV) and is responsible for providing inventory management services for Metro's materiel storerooms.

This Office ensures that all chemical-containing products stocked at any store are approved by SAFE and have been assigned an SDS number.

SCES is also responsible for providing the planning of materials that support maintenance activities as well as the storage and distribution of materials at ten (10) storerooms.

SCES works towards reducing the cost of inventory, increasing supplier on-time deliveries, and improving material forecasting accuracy, using up-to-date Inventory Management methods.

3.12.3.2 Office of Elevators and Escalators (ELES)

The mission of the Office of Elevator and Escalator Services (ELES) is to manage and maintain all vertical transportation equipment within the auspices of the Authority.

The General Superintendent, Office of Elevators and Escalators (ELES) reports to the Managing Director, SSRV and has the responsibility for the safe operation and maintenance of WMATA elevators and escalators (vertical transportation).

ELES coordinates with RTRA, RSTO, SAFE, QICO, CENI and other departments to ensure that hazards are quickly and effectively, eliminated or controlled.

The General Superintendent, ELES has the responsibility to provide job related safety training for ELES personnel and to ensure compliance with applicable safety rules and standards.

The General Superintendent, ELES is also responsible for construction safety functions for those elevator and escalator projects managed by ELES.

Safety related procedures for ELES maintenance activities are included in the MSRPH, OAPs and in the ELES Safety Maintenance Practices and Procedures Manual.

3.12.3.3 Office of Plant Maintenance (PLNT)

The Director, Office of Plant Maintenance (PLNT) reports to the Managing Director, SSRV and has the responsibility for the safe maintenance of WMATA facilities and equipment including JGB and CTF.

PLNT coordinates with BUS, RTRA, RSTO, SAFE, CENI, OEM_M and other offices and departments to ensure that hazards are quickly and effectively eliminated or controlled.

The Director, PLNT has the responsibility to provide job related safety training for PLNT personnel and to ensure compliance with applicable safety rules, regulations and standards.

The Director, PLNT is also responsible for construction safety functions for those Infrastructure Renewal Projects managed by PLNT, which could include construction or modification of stations, parking lots, sidewalks, platforms and bus facilities.

Safety related procedures for PLNT maintenance activities are included in the MSRPH SOPs and OAPs.

3.12.3.4 Office of Systems Maintenance (SMNT)

The Office of Systems Maintenance (SMNT) reports to the Managing Director, SSRV and is comprised of four Branches:

- Automatic Fare Collection Branch (AFCS);
- Communications (COMM);
- Power – Low Power (POWR-LV);
- Shops and Material Support (SAMS); and
- A Capital Program Management Staff.

The Automatic Fare Collection Branch (AFCS) is responsible for the maintenance, repair and installation of fare collection and parking lot equipment.

The Communications Branch is responsible for the maintenance and availability of the Authority's communications systems in support of bus and rail operations.

The Shops and Material Support Branch (SAMS) is WMATA's electronic and electro-mechanical repair facility.

SAMS also facilitates equipment and materials purchasing, warehousing and transportation. SAMS provides the following services: shipping, inventory, repair, calibration, contract maintenance and engineering support.

3.12.3.4.1 Communications System (COMM)

The Communication Branch (COMM) of SSRV is responsible for the maintenance and availability of the Authority's communications systems in support of bus and rail operations. Communication maintenance service is provided twenty-four (24) hours per day, seven (7) days per week.

The IT Department maintains the WMATA telephone system.

SSRV communications systems include:

- Metrorail Station Closed Circuit Television (CCTV) System, Metrorail Station Digital Video Recorder (DVR) and Network Video Recorder (NVR) Systems, Parking Garage CCTV;
- Comprehensive Radio Communications System (CRCS), Conventional Mobile Radio Systems, MTPD Mobile Data Terminals, Public Safety Radio System (PSRS) Interfaces, Public Safety System Distributed Antenna System;
- Metrorail Station, Metrobus Division, Parking Garage and ancillary building Fire and Intrusion Alarm (FIA) Systems, Metrobus Division and Metrorail Yard Perimeter Security Systems;
- Metrorail Station and Metrobus Division Public Address Systems, Integrated Intercommunications System, Passenger Emergency Response System (PERS), Passenger Information Display System (PIDS), Kiosk Information Display System (KIDS);
- Environmental Monitoring Systems (Veeder Root/Storage Tank Leak Detection Systems), Methane Gas Detection Systems; and
- The PROTECT system.

3.13 Office of Intermodal Strategic Planning (IPLN)

The Managing Director of Intermodal Strategic Planning (IPLN) is responsible for providing oversight in planning, coordination and implementation of policies, procedures and programs (long/short range system plans) for BUS and RAIL.

3.14 Metro Transit Police Department (MTPD)

The Chief of the Metro Transit Police Department (MTPD) (EMT) has the responsibility to provide both mission and safety training for MTPD personnel and to ensure compliance with applicable safety regulations and rules.

MTPD has the additional responsibility for Authority-wide emergency management function and providing rail system, MetroAccess and bus familiarization and transit safety and security training to local, county, state and Federal law enforcement agencies; military counter-terrorism units; and jurisdictional fire department and emergency medical services personnel.

The security provisions of CFR 49 Part 659 and the FWSO Oversight Standards are developed and maintained by MTPD separately from this document (in the SEPP) to ensure confidentiality.

3.14.1 Patrol Operations Bureau

The Patrol Operations Bureau is the core of the Metro Transit Police Department. It is the largest bureau, and responsible for patrol and law enforcement duties on the Metrorail, Metrobus and Paratransit systems. The Patrol Operation Bureau has more than 281 members working in concert with other WMATA departments and external law enforcement agencies to reduce criminal activity, prevent terrorism, and protect patrons, personnel and transit facilities. The bureau is broken down geographically into two Patrol Districts with three Metro Service Areas (MSAs) in each district.

3.14.2 Homeland Security & Investigations Bureau

The Homeland Security, Intelligence and Investigation Bureau (HSIIB) is composed of several units all directed at protecting the Washington Metropolitan Area Transit Authority (WMATA) from criminal and terrorist attacks. HSIIB protects critical infrastructure, investigates crimes, provides high visibility officers to reduce risks of terrorism and handles intelligence gathering for the Authority. The bureau also has representation at the National Joint Terrorism Task Force, the Joint Terrorism Task Force and the Washington Regional Threat Analysis Center.

3.14.3 Administrative Services Bureau

The Administrative Services Bureau provides administrative, training, operational and planning support to members of the police department. The responsibilities of the bureau include human resources functions, basic and in-service training, crime analysis, records retention, fleet management, quartermaster services, as well as administrative and clerical support.

3.14.4 Office of Emergency Management (OEM_M)

The Office of Emergency Management's (OEM_M) primary function is emergency preparedness. This is accomplished by responding to various Metro emergencies and creating a cohesive atmosphere between first responders and Metro officials during an incident. Advancing the Authority's preparedness also includes outreaches, training, exercises, classes, planning, and coordination with other agencies in the region as well as maintenance and testing of new concepts and equipment for improved preparedness.

3.15 Office of Parking (PARK)

The Office of Parking (PARK) is responsible for supporting the mission and vision of Metro by providing the best possible customer support to transit customers by maximizing the utilization of available parking resources, by providing a safe, friendly and reliable parking environment to customers who benefit from transit access across the region.

3.16 Office of Performance (CPO)

The Office of Performance (CPO) is responsible for:

- Developing and tracking organizational performance measures and metrics;
- Safety related performance measures and metrics that are tied to Metro's strategic plan;
- Preparing quarterly and annual performance reports (i.e. Vital Signs Report) to document progress publically;
- Guiding the annual business planning process to ensure department plans include safety actions and metrics; and
- Supporting alignment of employee performance management plans with business plans.

3.17 Department of Access Services (ACCS)

The Assistant General Manager, Department of Access Services (AGM/ACCS), has been delegated by the Executive Managing Officer (GMGR) as the responsible officer for the safe operation and maintenance of the MetroAccess paratransit fleet.

The Department of Access Services (ACCS) ensures the accessibility of public transportation including all Metro facilities and Metro-owned bus stops, vertical transportation, fixed-route transit, and equipment for people with disabilities and senior citizens.

The department, through its three program offices (ADA Policy and Planning, Eligibility Certification and Outreach, and MetroAccess Service), ensures the continuous availability and improvement of all of Metro's accessible services and facilities.

These improvements benefit the public and have important safety ramifications.

Continually informing people with disabilities of the advantages of their safe and independent use of Metro's accessible fixed-route services helps ensure that paratransit service is conserved for those individuals who truly need them.

It is WMATA's policy to comply with the provisions of the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. 12101-12213 and 47 U.S.C. 225 and 611) and the U.S. Department of Transportation implementing regulations (Code of Federal Regulations title 49, part 27, part 37 and part 38) requiring transit agencies to offer accessible public transit services and provide accessible facilities for persons with disabilities.

Additionally, WMATA strives to exceed these provisions to the benefit of our customers.

3.17.1 Office of ADA Policy and Planning (ADAP)

The Office of ADA Policy and Planning (ADAP) promotes accessibility of Metrobus, Metrorail and Vertical Transportation by working to obtain and maintain ADA compliant facilities, equipment, operating procedures and training. ADAP performs the following functions:

- By providing equipment and facility design to ensure that our fixed route services are developed to be as accessible as possible for customers with disabilities and senior citizens;
- By operating a quality assurance program to make sure Metro services and facilities are always in compliant with the Americans with Disabilities Act;
- By working with the Federal Transit Administration, the United States Access Board, and other regulatory agencies on accessibility issues;
- By staffing the Accessibility Advisory Committee, which advises the Metro Board on accessibility issues;
- By supporting the Department of Access Services and the Office of MetroAccess in areas of planning, fleet, safety, and capital management for the MetroAccess paratransit service; and
- By providing regional leadership in the coordination of specialized transportation.

3.17.2 Office of Eligibility Certification and Outreach (ELIG)

The Office of Eligibility Certification and Outreach (ELIG) assists Metro's customers with disabilities in determining the most independent travel options to meet their transportation needs and to determine the eligibility of customers to use bus and rail at reduced (half) fare and for those applying for MetroAccess service.

Customers must complete an application and have it certified by a health care professional.

ELIG then interviews the customer and conducts an assessment to determine eligibility.

This office plays an important role in determining the customer's ability to use Metro safely and offers educational services to help maximize the customer's safe use of our system.

3.17.3 Office of MetroAccess Service (MACS)

The Office of MetroAccess Service (MACS) provides contract management oversight for paratransit operations provided by contractors who schedule and deliver reservation-based, door-to-door transportation service for seniors and customers with disabilities.

MetroAccess is a shared ride transit service for people who are unable to use fixed-route public transportation due to disability. Shared ride means that multiple passengers may ride together in the same vehicle.

The service provides daily trips throughout the entire Washington metropolitan region, including the District of Columbia, suburban Maryland, and suburban Virginia.

Rides are offered in the same service areas and during the same hours of operation as Metrorail and Metrobus. MetroAccess is a service of WMATA, and is the region's complementary paratransit service in accordance with the Americans with Disabilities Act (ADA).

The MetroAccess Operations Control Center (MACS-OCC) coordinates communication and incident/accident response to all paratransit operators in conjunction with WMATA and local emergency personnel.

MACS-OCC is staffed 365 days per year and 24 hours per day.

The operation is managed by the Director of MetroAccess Service and the MACS-OCC Operations Manager.

3.18 Department of Internal Compliance (INCP)

The Department of Internal Compliance (INCP), reporting directly to the General Manager, is responsible for assuring Metro carries out its mission with integrity and in accordance with rules, regulations and policies while managing risk to achieve service performance levels expected by customers and stakeholders.

INCP fulfills this responsibility through the assurance and compliance activities undertaken by its offices of Quality Assurance, Internal Compliance & Oversight (QICO) and Internal Assurance & Compliance (IACO).

INCP provides oversight in two areas of the organization:

1) Operations, Maintenance and Engineering, the QICO areas of focus; and
2) Financial and Business Operations, the IACO areas of focus.

QICO coordinates with SAFE and external safety oversight agencies to ensure Metro Corrective Action Plan (CAPs) are implemented to effectively address required safety actions; and provides weekly CAP status updates to internal stakeholders and external agencies.

3.18.1 Office of Internal Assurance and Compliance (IACO)

The Director, Internal Assurance & Compliance (IACO) reports to the Chief of INCP and is responsible for providing independent, objective assessments and reviews of WMATA's system of internal control and underlying business processes with a primary focus on financial management and internal business operations.

Reviews and assessments are designed to add value and to improve WMATA's operations. This is accomplished by bringing a systematic and disciplined approach to evaluating and improving the management of related risks, internal controls and governance processes.

The scope of work performed is to determine whether the network of risk management, internal control, and governance processes in the area of financial management and internal business operations are designed and adequately implemented and functioning to ensure:

- Results of operations, programs, plans, and projects are consistent with established objectives;
- Risks are appropriately identified and managed;
- Financial and operating information, and the means used to initiate, authorize, record, process and report such information is adequate and reliable;
- Efficiency and effectiveness of internal operations;
- Quality and continuous improvement is fostered;
- Assets are safeguarded;
- Compliance with applicable laws and regulations;
- Compliance with internal polices, standards, and procedures; and
- Issues identified by internal and external sources and centrally managed and corrective actions fully implemented and maintained.

3.18.2 Office of Quality Assurance, Internal Compliance and Oversight (QICO)

The Managing Director, QICO reports to the Chief of INCP and is responsible for establishing systematic programs of assurance, improvement and oversight.

The programs include but are not limited to coordination and oversight of regulatory CAPs, quality oversight for contracts and contract specifications, engineering initiatives configuration management, and monitoring programs and projects in accordance with established procedures.

QICO aligns its assurance programs with Metro's asset categories (Rolling Stock; Facilities; Guideway and Systems) to ensure systematic quality activities are applied in every phase of the asset lifecycle.

QICO is responsible for all Quality Assurance tasks distributed within the following assurance programs:

- Rolling Stock Assurance (Railcars; Rail-borne Equipment);
- New Railcar Assurance (7000 series); and
- Infrastructure Assurance (Facilities- Station and Non-revenue; Guideway- Track and Structures; and Systems- Traction Power, Train Control, Communications).

Within these programs, QICO supports COO and CE activities to enhance safety and reliability in operations and maintenance by assuring compliance to WMATA workmanship standards and specifications.

To further enhance the consistent and safe application of WMATA management controls, QICO develops and implements a Quality Audit Plan of COO and CE functional areas prioritizing audit activities based on risk and WMATA corporate level priorities.

QICO also performs document reviews, provides oversight and inspections to ensure compliance to Preventative Maintenance Inspection procedures (PMIs).

To improve COO and CE performance, enhance safety and reliability, QICO follows FTA Quality Assurance and Quality Control Guidelines # FTA-IT-90-5000-02.1 and audits all processes that make up the WMATA Quality Management System.

QA Inspection takes place at strategic offices and key sites to perform inspection for compliance of work completed to all configuration control and workmanship standards, and safety critical requirements.

QICO ensures Receiving Inspection for parts Verification/Validation for configuration control, and per the specification (drawings) and WMATA workmanship standards.

In addition, QICO enforces Warranty provisions (for Dulles Corridor and other RAIL major offices including the New Car Programs) to enhance the safety and reliability of WMATA vehicles and systems.

QICO oversees WMATA's compliance with internal and regulatory findings, recommendations, and required actions through the development of Corrective Action Plans (CAPs).

To limit duplicate efforts in CAP development and implementation, QICO carries out a crosswalk of existing actions and organizational initiatives, providing a streamlined approach for WMATA action coordinators assigned to CAPs.

3.19 Office of General Counsel (COUN)

The Office of General Counsel (COUN) protects the Authority's legal interests.

The General Counsel serves as legal advisor to the Authority in an individual professional capacity, and serves as Ethics Officer for the Board of Directors.

As a part of Metro's executive team, the General Counsel serves as a partner in the business process by providing legal and strategic advice for business transactions and policy initiatives.

With Section Chiefs leading in key client services areas including:

- Contracts & Procurement;
- Customer Service & Regulatory Affairs;
- Finance & Administration;
- Governance & Human Resources;
- Real Estate & Joint Development;
- Metro Transit Police; and
- Litigation and Workers' Compensation.

COUN partners with senior managers to develop agreements with third parties, advise on procurements, assist with real estate and joint development activities, represent the Authority in trials and appeals, and provide advice on risk and reputational matters.

3.20 Office of Inspector General (OIG)

The Office of Inspector General (OIG) for the Washington Metropolitan Area Transit Authority (Metro) was authorized by Board of Directors Resolution 2006-18, approved April 20, 2006.

The OIG supervises and conducts independent and objective audits, investigations, and reviews of Metro programs and operations to promote economy, efficiency, and effectiveness, as well as to prevent and detect fraud, waste, and abuse in such programs and operations.

The Inspector General provides advice to the Board of Directors and General Manager to assist in achieving the highest levels of program and operational performance in Metro.

The OIG works with SAFE to address safety and environmental issues brought to the attention of the OIG.

4.0 Plan Review and Modification

4.1 Annual SSPP Review

The System Safety Program Plan is reviewed annually to:

- Evaluate all safety tasks for appropriateness as Metrorail, Metrobus and MetroAccess improves and expands;
- Incorporate the current task descriptions, and activities;
- Refine and improve the current task descriptions and activities;
- Identify new tasks which may be required as WMATA expands; and
- Identify the organizations responsible for accomplishing the newly added safety-related tasks.

It is the responsibility of the CFO to ensure that the SSPP is reviewed annually as required in accordance with 49 CFR 659.17, the Tri-State Oversight Committee Program Standard and Procedure, Section 14 and SAFE's internal Document Control Procedure #600-01.

The SSPP review will take place during the last quarter of the year to allow for the maximum feedback from all departments on requested changes.

During the review period, a copy of the draft SSPP will be supplied to all departments and personnel that have been assigned duties or responsibilities within the SSPP for their review and comment.

Once all the comments have been reviewed and the SSPP internally approved but not signed, a copy of the draft SSPP will be presented to the FTA for a conditional approval.

Once the conditional approval has been received back from the FTA, all the signatories listed on page 3 of this document will sign and date the SSPP thus approving it.

The signed SSPP will then be resubmitted to the FTA for their final approval and acceptance.

This process is in accordance with SAFE OAP #600-11, SSPP Review and Comments.

4.2 SSPP Control and Update Procedures

The SSPP analysis, review, revision and publication process is the responsibility of SAFE.

The CSO is responsible for the control and update of the SSPP.

Input for these annual reviews is solicited from all WMATA departments, the FTA, APTA, FWSO, industry safety peer reviews, and other regulatory agencies.

SAFE makes a concerted effort to solicit input from all stakeholders on a continual basis throughout the revision process.

The update process will begin no later than November 1st with input requested no later than November 9th.

An updated draft SSPP will be circulated to all WMATA departments for review and comment no later than December 1.

4.3 SSPP Change Management

All changes to the SSPP will be recorded on the Revision Pages of this document beginning on Page 4.

Only changes to the current year's document will be recorded.

Changes to other earlier versions of the SSPP are recorded on their revisions pages for that year's document and are archived on the SAFE Q-Drive.

5.0 SSPP Implementation – Tasks and Activities

5.1 Overview

The CSO has been delegated specific responsibilities by the GM/CEO for the management and oversight of:

- System safety;
- Hazard management;
- Occupational safety and health;
- Accident and incident investigation;
- Oversight of construction safety;
- Safety and security certification;
- Environmental management;
- Fatigue risk management;
- Safety training; and
- Monitoring the effectiveness (via the Internal Safety and Security Review Program) of the implementation of the SSPP.

The CSO is responsible for advising the executive and senior management on all safety policy and related matters. SAFE interfaces with all WMATA departments at all levels of the organization.

5.2 System Safety Function

The CSO has delegated the day-to-day operational leadership to multiple, two (2) Assistant Chief Safety Officers (ACSO). Both ACSO's have the responsibility for establishing and implementing policies, procedures and programs to ensure that SAFE is effectively implementing its responsibilities under the SSPP in their respective departments.

One ACSO is responsible for the Environmental Management and Industrial Health group as well as the Occupational Safety and Health group, which includes providing management direction for the Hazard Management Program and the Internal Safety and Security Review Program.

The ACSO of Operations and Investigations is responsible for the Bus and MetroAccess, Rail Safety and Facilities, and the Investigations groups.

The Fire Marshal is responsible for Fire Safety and Risk Management that includes the, Safety Certification Engineering and Fire Life Safety groups.

The CSO has delegated the Deputy Chief; Rail Safety for the day-to-day management of programs to implement the rail safety responsibilities of SAFE required by the SSPP and to monitor the safety programs implemented by the rail operations, construction safety, and maintenance departments as required by the SSPP.

The Deputy Chief, Rail Safety is the primary contact with the FTA in matters relating to the Hazard Management Process.

The CSO has delegated the Deputy Chief, Occupational Safety and Health (OSA) with implementing the employee safety, industrial safety, corporate safety and occupational safety training aspects of the SSPP.

In addition, the Deputy Chief, OSA serves as the contracting officer's technical representative (COTR) and primary SAFE contact for safety consultants.

The CSO has delegated the Deputy Chief, Environmental Management and Industrial Hygiene (EMIH) with responsibility for the environmental management, and industrial hygiene aspects of the SSPP.

The CSO has delegated the Deputy Chief, Bus and MetroAccess Safety with responsibility for the bus operations, bus maintenance and MetroAccess aspects of the SSPP and for overseeing the WMATA safety programs for pedestrians and bicyclists.

The CSO has delegated the Deputy Chief of Investigations, with the responsibility for performing in depth inquirers of incidents and accidents to determine the root cause and contributing factors, to mitigation, to closure and finally follow-up to ensure non-reoccurrence.

5.2.1 Methodology Used by the Safety Organization

Ensuring that SAFE follows a proactive approach to safety, the following methodologies are used:

- A continuous hazard management process;
- An accident and incident investigation process;

- Safety data collection, analysis, and review of MAXIMO reliability and failure data using SMS_M;
- The Enterprise Risk Management system;
- A continuous internal safety and security review process;
- Facility, equipment, systems and vehicle inspections;
- A review of proficiency checks including bus and train operators and maintenance employees;
- MSRPH compliance evaluations including onsite inspections of work sites and review of reports generated from the General Orders and Track Rights Database (GOTRS);
- System safety and security certification process and system modification safety review process; and
- Regularly communicating safety and hazard data to GM/CEO, the EMT, directors, managers, supervisors and employees via SMS_M, direct personal contact and a multi-tier safety committee process.

The above list is not all-inclusive and SAFE may use additional analysis tools as required.

5.3 Fatigue Risk Management

The Washington Metropolitan Area Transit Authority (WMATA) has developed and implemented a Fatigue Risk Management System (FRMS) for the purpose of preventing and mitigating fatigue in the interest of employee and public safety.

FRMS is a science-based approach to continuous risk reduction currently employed in several safety-sensitive transportation industries including rail transportation (per the Federal Railroad Administration).

WMATA's FRMS program is comprised of several policies and initiatives each designed to reduce the likelihood and impacts of fatigue impairment.

The Chief Safety Officer is responsible for management of the FRMS with participation and support across the Authority.

WMATA Policy/Instruction No. 10.6 defines the responsibilities of the FRMS Manager and of the FRMS Steering Committees, which recommend policies and procedures.

WMATA Policy/Instruction No. 10.7 establishes Hours of Service Limitations for the Prevention of Fatigue and specifies responsibilities for establishing compliance.

SAFE:

(1) Provides a framework for the designation of safety-critical occupations subject to hours of service limitations.

(2) Develops training content in support of employee education and awareness, inclusion of fatigue elements in accident investigations, and implementation of hours of service limitations.

(3) Works with other WMATA entities to define and track program metrics. The FRMS incorporates employee fitness-for-duty procedures related to sleep disorders.

5.4 Safety Responsibilities of Other Departments

The tasks described in this section are in addition to those that are included under the specific 21 Elements of the SSPP.

The "Safety Responsibilities and Tasks Matrix" provided in exhibit 5-1 lists the SSPP sections and other pertinent documents that describe safety related responsibilities performed by the appropriate department/office.

While the attempt was made to include all policies and departmental plans and procedures in exhibit 5-1, each department is responsible for ensuring that SAFE is included in the review process for all original and revised departmental procedures and plans so that SAFE may determine if the content of the procedures and plans is safety related.

SAFE is included in the review process of all Policy/Instructions.

5.4.1 Environmental Management

All industrial, maintenance, support and construction activities of the departments of Human Resources (HRMS/OHAW), Rail, BUS, ENG, CFO (PRMT) and MTPD comply with applicable Federal, state and local environmental protection laws, standards and regulations.

These include applicable requirements of the:

- National Environmental Policy Act (NEPA);
- Resource Conservation and Recovery Act (RCRA);
- Toxic Substances Control Act (TSCA);
- Clean Water Act (CWA);
- Clean Air Act (CAA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);
- Noise Control Act (NCA);
- Comprehensive Environmental Response;
- Compensation and Liability Act (CERCLA);
- Emergency Planning and Community Right-To-Know Act (EPCRA);
- Pollution Prevention Act and Superfund Amendments and Reauthorization Acts (SARA); and

- All medical waste requirements of USEPA, Maryland, Virginia and the District of Columbia.

Specific environmental management policies and procedures are included in the following separate documents:

- WMATA Environmental Management Policy Manual (Rev.2, July 2013);
- Environmental Standard Operating Procedures (EMIH Website); and
- CENI Environmental Compliance Procedures.

Design review and substantial completion inspections assist in ensuring that all WMATA facilities are designed and constructed in accordance with the applicable environmental laws and regulations.

Senior managers at each facility are assigned collateral duties as Environmental Compliance Officers (ECOs) and Deputy Environmental Compliance Officers (DCOs).

These individuals are responsible for ensuring compliance with applicable environmental regulations.

EMIH is responsible for providing technical advice to the ECOs and DCOs and for monitoring regulatory compliance.

5.4.2 Safety Committees

The Executive Safety Committee (ESC) and necessary subcommittees are established, under WMATA P/I 10.2/3, to ensure all aspects of the System Safety Program Plan (SSPP) are fully implemented and to ensure coordination of safety issues among departments.

Responsibilities may include reviewing investigation reports of major accidents and incidents, reviewing and approving changes to the MSRPH, BSEH, the RWPM and WMATA Safety Rules and Procedures.

In addition, the ESC provides executive management oversight of the following:

- The Hazard Management Process;
- The Internal Safety and Security Review Process;
- The Environmental Management Audit Process;
- The Safety and Security Certification Process; and
- The Implementation of FTA approved Corrective Action Plans (CAPs).

The ESC, at its discretion, can establish subcommittees and system safety working groups to assist with ESC responsibilities and activities.

The Chairperson of the ESC is the CSO. The scope of responsibilities, including membership, can be found in Policy Instruction P/I 10.2/3 – Safety Committees.

The Departmental Safety Committees (DSCs) are management level safety committees that serve as the intermediary between the respective Local Safety Committees (LSCs) and the ESC.

A SAFE representative also serves as a member of each DSC and assists with the disposition of each hazard according to the assessment process described in the SSPP.

Unresolved hazards from the DSC are forwarded to the ESC and SAFE staff ensure that the disposition/resolution of the reported hazard is reported back down to the Committee(s).

DSCs are authorized to re-structure membership as required by their needs.

Local Safety Committees (LSCs) are established to address local safety issues, the Hazard Management Process and to assist in developing effective safety programs.

There is typically one LSC at every major facility.

The LSCs establish and foster a close working relationship with employees, unions, and management regarding safety issues.

Employees are encouraged to report any perceived safety issue or hazard to their LSC representative for investigation and resolution. In addition, employees can report hazards directly to SAFE (Safety Hotline [202-249-SAFE] or Intranet Website).

SAFE staff also serve as advisors to the LSCs.

Membership is determined by each individual committee chairperson but should include local supervision, union representation, and non-management employees.

Unresolved hazards from the LSC must be forwarded to the DSC, and in the absence of a DSC, to the ESC.

A Safety and Security Certification Review Committee (SCRC) is established as a subcommittee to the ESC, to provide guidance for the safety and security certification of major construction and rehabilitation projects and vehicle procurement.

The SCRC is accountable to the ESC for the overall conduct and implementation of Safety and Security Certification Plans and approval of certification documentation in accordance with the Safety and Security Certification Plan (SSCP). The CSO, or designee, chairs the committee.

5.4.3 Safety Recognition

Safety recognition awards acknowledge individual safety achievement.

Currently established safety awards for WMATA employees are:

- Safe Driver Award
  - Bus, in conjunction with SAFE, provides safe driving awards to recognize bus operators with excellent safety records.
  - Access Services' contractors administer safety award programs that recognize operators, supervisors and maintenance staff.
- Rail Safety Award
  - RSTO, in conjunction with SAFE, administers safety awards that recognize train operators and station managers with excellent safety records.
- Annual Safety, Security, and Emergency Response Award
  - The GM/CEO presents an award annually, to an employee who makes an outstanding contribution to the Authority's safety, security, programs and/or emergency response. This award is part of the Authority's Annual Awards Program.
- PLNT Safety Award
  - PLNT, in conjunction with SAFE, administers safety awards that recognize mechanics, landscapers and custodians with excellent safety records.
- SMNT Safety Award
  - SMNT administers a safety award program that recognizes SMNT organizational-level, intermediate-level and depot-level maintenance technicians, logistics specialists, clerks, parts runners, supervisors and maintenance managers with excellent safety records.
- TRST Departmental Safety Awards
  - TRST administers a safety award program that recognizes TRST laborers, repairers, operators, trackwalkers, supervisors and maintenance managers with excellent safety records.
- BMNT Safety Award
  - BMNT administers a safety award program that recognizes BMNT employees with excellent safety records.

WMATA recognizes "Champions of Safety" at an annual safety recognition ceremony.

The Champions of Safety Recognition Program directly supports Metro's safety improvement initiatives whose focus is improving WMATA's safety culture and adopting business practices that encourage a safer work place.

5.5 Confidential Close Call Reporting

The Washington Metropolitan Area Transit Authority (WMATA) is sponsoring the Close Call Reporting Program, in partnership with the Amalgamated Transit Union (ATU), Local 689 (L-689), the International Brotherhood of Teamsters, Local 922, and the Bureau of Transportation Statistics (BTS), for both rail and (as of 2016) bus employees.

This program is intended to:

- Improve bus and rail transit safety by collecting reports on near miss incidents, determining root causes of unsafe conditions, and developing appropriate preventive safety actions; and
- Provide WMATA employees with a confidential platform to voluntarily report, close call events without fear of disciplinary action.

The BTS will disseminate information on trends of reported close call events to support WMATA's continuing efforts to improve safety.

In addition, the BTS will measure the reporting system's impact on safety by analyzing employee-reporting patterns over time.

5.6 Safety Tasks and Responsibilities

The tasks described in this section are in addition to those that are included under the specific Twenty-One Elements of the SSPP. The Safety Responsibilities and Task Matrix is provided in exhibit 5-1 that includes departmental and SAFE safety tasks and responsibilities.

During the safety and security certification process, items dealing with fire/life safety elements are referred to the Fire Marshal’s office for review before certification can be completed.

The Fire Marshal’s office works in conjunction with the safety and security certification team to resolve any issues discovered during the review.

5.6.1 Complaint Investigations

WMATA employees can submit safety concerns and complaints to SAFE through the Safety Hotline 202-249-SAFE (7233), the SAFE Website or through direct contact with a SAFE staff member.

Customer safety complaints received by CSVC are forwarded to SAFE and investigated by SAFE personnel and are coordinated with the responsible office for resolution.

Safety related complaints received by the OIG are forwarded to SAFE for investigation.

Anonymity is maintained, if requested, for complaints investigated by SAFE.

If hazards are identified during the investigation process, they are entered into the Hazard Management Matrix by the SAFE investigator assigned and managed in accordance with the Hazard Management Process.

SAFE provides evidence of successful resolution of the complaint to CSVC and the OIG for complaints originating from those offices.

5.6.2 Investigation of Repetitive Events

The Process Engineering, Statistical Review and Fatigue Manager of SAFE reviews SMS_M, MAXIMO and other data on a daily basis, which includes searching for repetitive events that might have safety implications.

When accident/incident reports and statistics indicate repetitive accidents/incidents, as defined on page 191, the appropriate department within SAFE will conduct an investigation, using the SMS and any other supporting data, to determine the root cause in accordance with the latest version of WMATA P/I 10.4.

Identified hazards are entered into SMS and investigated in accordance with the Hazard Management Matrix.

5.6.3 System Safety Design Review

Safety design reviews are an integral part of all acquisition processes for WMATA facilities and equipment.

All new changes at WMATA, such as those to training or emergency management procedures, which have a system safety component, must be carried through into the design review process.

Safety design reviews are performed by the Safety Certification and Engineering group within SAFE, to assess the compliance of facility or equipment design with safety, fire, and environmental regulations and requirements in specifications. In addition, they ensure that the safety of existing WMATA equipment is not degraded by the addition of new facilities or equipment, as part of the configuration management process.

Safety design reviews are performed by SAFE on all new construction for COO, and infrastructure renewal program (IRP) projects, joint development, adjacent construction projects and vehicle procurement.

COO is responsible for ensuring that SAFE receives electronic transmittal and four (4) copies of designs and contract specifications of all contracts throughout all phases of the design review process.

A minimum of two (2) weeks must be allotted for the SAFE design review.

PRMT must ensure that all SAFE modifications and revisions of designs and specifications are included in contracts prior to advertisement.

However, if SAFE's review and comments of the contract cannot be completed by the date stipulated by the project schedule, alteration of documents, post bid, will be conducted through the amendment process as stated in WMATA's Procurement Procedures Manual.

Identified hazards are entered by SAFE into the Hazard Management Matrix.

5.6.4 Environmental Management Oversight

As the owner and operator of many diverse facilities, it is the responsibility of WMATA to minimize, prevent, and control the generation of hazardous and non-hazardous waste and pollutants to protect the environment.

The Environmental Management Policy Manual establishes a comprehensive Environmental Management Program. SAFE performs oversight reviews to evaluate the Authority's environmental management system and to monitor regulatory compliance.

5.6.5 Safety Field Offices

SAFE has established nine (9) Regional Safety Field Offices to which safety officers are assigned to work with facility managers as safety consultants and inspectors in support of the Hazard Management Program, the Local Safety Committees and all Safety Facility Improvement Programs.

Safety Officers are assigned to the Red Line, Blue/Orange Line, Silver Line, and Yellow/Green Line to provide safety services to RSTO's Line Management staffs.

Two (2) safety officers are assigned to construction safety.

Bus Divisions are divided into five (5) regions, each with a dedicated SAFE safety officer.

5.6.6 State of Maryland Division of Labor and Industry

SAFE is responsible for reporting the death of any employee as a result of a work-related incident that occurs at a WMATA facility in Maryland, within eight (8) hours, to the Maryland Division of Labor and Industry, Occupational Safety and Health Service (MOSA) and to the Occupational Safety and Health Administration (OSH), U.S. Department of Labor.

SAFE is responsible for reporting the in-patient hospitalization of one or more employees or an employee's amputation or an employee's loss of an eye, as a result of a work-related incident that occurs at a WMATA facility in Maryland, within twenty-four (24) hours, to the Maryland Division of Labor and Industry, Occupational Safety and Health Service (MOSA) and to the Occupational Safety and Health Administration (OSH), U.S. Department of Labor.

SAFE is to be notified immediately of the arrival of MOSA inspectors at any Authority facility for the purposes of conducting inspections or investigations.

SAFE is the Authority's primary point of contact with MOSA.

Copies of all citations received at a facility are to be immediately provided to SAFE.

SAFE is responsible for submitting the Authority's response to MOSA citations and for requesting hearing or contesting citations in conjunction with COUN.

WMATA contractors working in Maryland are required to comply with MOSA standards including reporting requirements.

Therefore, the Authority must establish contract requirements that require contractors to comply with MOSA standards and monitor the effectiveness of such compliance.

5.6.7 Commonwealth of Virginia Department of Labor and Industry

SAFE is responsible for reporting the death of any employee as a result of a work-related incident that occurs at a WMATA facility in Virginia, within eight (8) hours, to the Virginia Department of Labor and Industry, Occupational Safety and Health Service (VOSA) and to the Occupational Safety and Health Administration (OSH), U.S. Department of Labor.

SAFE is responsible for reporting the in-patient hospitalization of one or more employees or an employee's amputation or an employee's loss of an eye, as a result of a work-related incident that occurs at a WMATA facility in Virginia, within twenty-four (24) hours, to the Virginia Department of Labor and Industry, Occupational Safety and Health Service (VOSA) and to the Occupational Safety and Health Administration (OSH), U.S. Department of Labor.

SAFE is to be notified immediately of the arrival of VOSA inspectors at any Authority facility for the purposes of conducting inspections or investigations.

SAFE is the Authority's primary point of contact with VOSA. Copies of all VOSA citations received at a facility are to be immediately provided to SAFE.

SAFE is responsible for submitting the Authority's response to VOSA citations and for requesting hearings or contesting citations in conjunction with COUN.

WMATA contractors working in Virginia are required to comply with VOSA standards including reporting requirements.

Therefore, the Authority must establish contract requirements that require contractors comply with VOSA standards and monitor the effectiveness of such compliance.

5.6.8 Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) does not consider WMATA as being under its jurisdiction because it is a public agency.

However, OSHA will notify SAFE if it receives an employee complaint, request that it be investigated and request that the Authority provide a written response.

Alternatively, OSHA will notify the District of Columbia OSH, which is a consulting agency, to investigate the complaint.

WMATA contractors working in the District of Columbia are required to comply with Federal OSHA standards including reporting requirements.

Therefore, the Authority must establish contract requirements that require contractors comply with OSHA standards and monitor the effectiveness of such compliance.

5.6.9 Safety Responsibilities and Task Matrix

The Safety Responsibilities and Task Matrix (see exhibit 5-1) includes safety related responsibilities and tasks performed by SAFE and other responsible departments.

Exhibit 5-1

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
Exhibit 1-1 and 2.3, 3.3	Establish annual WMATA safety objectives for submission to the Board of Directors in January of each year.	BTRA, MACS, RTRA, RSTO, P	BMNT COO P		Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers[1]
Exhibit 1-1 and 2.3, 3.3	Submit, a safety report on the WMATA operational, industrial, and construction safety performance at the end of the fiscal year and quarterly reports throughout the year	BTRA, MACS, RTRA, RSTO, P	BMNT COO P		Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
Exhibit 1-1 and 2.3, 3.3	The following information shall be provided to the Board Safety and Security Committee by WMATA staff: Quarterly operations and safety data; the Hazard Identification/Resolution Matrix; accident and incident reports; and annual internal safety and security review reports. In addition, the Board Safety and Security Committee is provided briefings on internal investigations of fatalities, derailments, major collisions (damage exceeding $100,000), and safety matters, incidents receiving media attention and investigations conducted by the National transportation Safety Board and the Tri-State Oversight Committee.	BTRA, MACS, RTRA, RSTO, P	BMNT COO P		Authority P MTPD P	Chief Safety Officer Assistant Chief Safety Officers
3.3	The CSO and SAFE designees have the authority to direct that work or conditions, determined to be unsafe, or pose a hazard to customers, employees, contractor employees, the general public or endangers the safe passage of trains or buses, be suspended or restricted, until the unsafe condition or hazard can be mitigated or corrected.	BTRA, MACS, RTRA, RSTO, P	BMNT P		Authority P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers Safety Managers Safety Officers
3.3	Management of system safety, occupational safety and health, accident and incident investigation, oversight of construction, environmental protection and monitoring the implementation of the *System Safety Program Plan* (SSPP)	BTRA, MACS, RTRA, RSTO, P	BMNT COO P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers

[1] Deputy Chief, OSA
Deputy Chief, Bus and MetroAccess Safety
Deputy Chief, Rail Safety
Deputy Chief, EMIH

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
3.3	Review of departmental policies and procedures including WMATA *Policy/Instructions*, *Department of Operations Administrative Procedures* (OAPs), Office of Chief Engineer and Project Management, procedures, Department of Finance/Chief financial Officer (CFO) procedures, HR procedures and procurement policies and procedures. SAFE also promulgates and monitors adherence to Authority-wide safety procedures	BTRA, MACS, RTRA, RSTO, P	BMNT COO P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers
4.0	SSPP Plan Review and Modification	BTRA, MACS, RTRA, RSTO, P	BMNT COO R	R	Authority R	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers
5.3.1.2	SAFE Staff Advise Safety Committee Meetings	BTRA, MACS, RTRA, RSTO, P	BMNT COO P			Manager, Corporate Safety Programs/NTD Manager Safety Officers
5.4	Safety Design Reviews	ACCS. BTRA, RTRA, RSTO, S	BMNT S COO P			Assistant Chief Safety Officers Deputy Chief, Rail Safety Safety Officers
5.4.1	Safety related complaint Investigations	BTRA MACS RTRA RSTO P	BMNT P COO P	P	RISK RCF RADS CSVC PRMT ACCS P	Assistant Chief Safety Officers Deputy Chief Safety Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis Safety Officers
5.4.2	Investigation of safety related repetitive events	BTRA MACS RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT P	Assistant Chief Safety Officers Deputy Chief Safety Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
5.4.5	Maintain SAFE Field Offices	BTRA MACS RTRA RSTO P	BMNT COO P		RCF RADS PRMT P	Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Manager, Rail Safety Manager, Bus and MetroAccess Safety Manager, Corporate Safety Programs and Analysis Manager, EMIH Safety Officers
5.4.6	Coordination with Maryland Occupational Safety and Health Service	BTRA RTRA RSTO S	BMNT COO S	S	PRMT S	Deputy Chief, OSH Manager, Corporate Safety Programs/ NTD Safety Officers
5.4.7	Coordination with Virginia Occupational Safety and Health Compliance Program	BTRA RTRA RSTO S	BMNT COO S	S	RCF PRMT MTPD S	Deputy Chief, OSH Manager, Corporate Safety Programs and Analysis Safety Officers
5.4.8	Coordination with United States Department of Labor Occupational Safety and Health Administration (OSH) and the District of Columbia Occupational Safety and Health Administration	BTRA RTRA RSTO S	BMNT COO S	S	RADS PRMT S	Deputy Chief, OSA Manager, Corporate Safety Programs and Analysis Safety Officers
5.4.4	Environmental Management Oversight Process	BTRA RTRA RSTO P	BMNT COO P	P	CFO RCF RADS PRMT P COUN	Deputy Chief, EMIH Environmental Protection Oversight Administrator

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
6.0	Hazard Management Process	BTRA RTRA RSTO P	BMNT COO P		Authority RISK RCF RADS PRMT MTPD P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers Deputy Chief, OSA QA Managers QA Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis Safety Officers
6.2	System Safety Analysis	BTRA RTRA RSTO S	BMNT COO P		RCF RADS PRMT S	Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess Safety Deputy Chief, Rail Safety Safety Officers
7.0	Managing Safety in System Modifications	BTRA RTRA RSTO P	BMNT COO P		ACCS	Assistant Chief Safety Officer Deputy Chief, Rail Safety Safety Officers
8.0	Safety and Security Certification	BTRA RTRA RSTO S	BMNT S COO P		MTPD P	Assistant Chief Safety Officer Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Safety Officers
9.0	Safety Data Acquisition	BTRA MACS RTRA RSTO P	BMNT COO P	P	Authority RISK RCF RADS P	Deputy Chief, OSH Manager, Corporate Safety Programs and Analysis Safety Officers

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
9.2	Safety related reports to external agencies	BTRA MACS RTRA RSTO P	BMNT COO P	P	RISK RCF RADS PRMT P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess Safety Deputy Chief, EMIH Manager, Corporate Safety Programs and Analysis
10.0	Investigations	BTRA MACS RTRA RSTO P	BMNT COO P	P	R RISK RCF RADS PREL CSCM MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis Safety Officers Deputy Chief, OSA QA Managers QA Officers
11.0 13.0	Develop/Update SOPs, Rules and Emergency Plans	BTRA MACS RTRA RSTO P	BMNT COO P	P	MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis Safety Officers Deputy Chief, OSA QA Managers QA Officers

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
11.0	Emergency Response Liaison	BTRA MACS RTRA RSTO S	BMNT COO S	S	MTPD P PREL P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Manager, Bus and MetroAccess Safety Manager, Rail Safety
11.0	Fire Protection	BTRA RTRA RSTO P	BMNT COO P		MTPD P	Fire Marshal Deputy Chief Safety Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Safety Officers
12.0	Internal Safety and Security Review Process	BTRA RTRA RSTO P	BMNT COO P	P	Authority P MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Manager, Bus and Metro Access Safety Manager, Rail Safety Manager, Corporate Safety Programs/ NTD Safety Officers Deputy Chief, OSA QA Managers QA Officers

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
13.0	Rules Compliance/Procedures Review	BTRA MACS RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT MTPD P	Chief Safety Officer is a signatory to MSRPH and BSEH. Chief Safety Officer is vice-chair of the Rail Standing Safety Rules and Procedures Sub-committee. The MSRPH must be reviewed and approved by the Executive Safety Committee. Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis Safety Officers Deputy Chief, OSA QA Managers QA Officers
14.0	Facilities and Equipment Inspections	BTRA RTRA RSTO P	BMNT COO P	P	MTPD RCF RADS PRMT P	Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Manager, Bus and MetroAccess Safety Manager, Rail Safety Safety Officers Deputy Chief, OSA QA Managers QA Officers
15.0	Review Maintenance and Failure Data. Perform maintenance inspections/audits	BTRA RTRA RSTO P	BMNT COO P		RCF RADS PRMT P	Deputy Chief, OSA QA Managers QA Officers Deputy Chief, Rail Safety Manager, Bus and MetroAccess Safety Safety Officers

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
16.0	Training, Certification, Review and Audit	BTRA RTRA RSTO P	BMNT COO P	P	MTPD, RCF, RADS, OPMS, PRMT, P	Deputy Chief, OSH Manager, Corporate Safety Programs and Analysis Safety Officers Deputy Chief, EMIH
17.0	Configuration Management	BTRA RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT P	Assistant Chief Safety Officer Deputy Chief Rail Safety Deputy Chief, Bus and MetroAccess Safety Fire Marshal Safety Officers Deputy Chief, OSA QA Managers QA Officers
18.1	Personal Protective Equipment Review	BTRA RTRA RSTO P	BMNT COO P	P	MTPD RCF RADS PRMT P	Deputy Chief, EMIH Deputy Chief OSH Deputy Chief Rail Safety Deputy Chief, Bus and MetroAccess Safety Manager Corporate Safety Programs and Analysis Safety Officers Chemical Safety Liaison Officer
18.1	Monitor Occupational Safety and Health Compliance	BTRA RTRA RSTO P	BMNT TIES P	P	RCF RADS PRMT P	Deputy Chief, OSA Manager, Corporate Safety Programs/NTD Safety Officers Chemical Safety Officer
18.3	Conduct Industrial Hygiene Studies	BTRA, RTRA, RSTO, S	BMNT COO S	S	RISK, RCF, RADS, PRMT, S	Deputy Chief, EMIH Deputy Chief, OSH Safety Officers

	SAFE Responsibility and Task Matrix					
	Source: System Safety Program Plan					
	Interfaces					
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
18.3	Monitor Construction Safety Program	BTRA RTRA RSTO S	BMNT S COO P	P	PRMT P	Assistant Chief Safety Officer Deputy Chief, Rail Safety Construction Safety Liaison Officer Construction Safety Officer
19.0	Hazardous Materials Management Material Safety Data Sheet Review	BTRA RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT P	Deputy Chief, EMIH Manager, Environmental Services Chemical Safety Liaison Officer Safety Officers
20.0	Drug and Alcohol Abuse Program	BTRA RTRA RSTO P	BMNT COO P	P	PRMT P	Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess Safety Deputy Chief, Rail Safety Manager, Rail Safety Manager, Bus and MetroAccess Safety
21.0	Procurement Process	BTRA RTRA RSTO P	BMNT COO P	P	CFO RCF RADS PRMT P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Chemical Safety Liaison Officer Fire Marshal Manager, Bus and MetroAccess Safety Manager, Corporate Safety Programs and Analysis Manager, Rail Safety Safety Officers Deputy Chief, OSA QA Managers QA Officers

	SAFE Responsibility and Task Matrix					
	Source: Safety Rules and Procedure					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
2.1/0 RE: SSPP 6.0	Hazard Management Procedure (June 2011)	BTRA RTRA RSTO P	BMNT COO P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Safety Officers
2.2/1 RE: SSPP 8.0	Safety and Security Certification Plan	BTRA RTRA RSTO P	BMNT COO P		MTPD P	Assistant Chief Safety Officer Deputy Chief Rail Safety Safety Officers
2.3/2 RE: SSPP 12.0	Internal Safety and Security Review Program Procedures	BTRA RTRA RSTO P	BMNT COO P	P	Authority MTPD P	Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess Safety Deputy Chief, Rail Safety Fire Marshal
3.2/1 RE: SSPP 11.0	Jackson Graham Building Evacuation Procedures				Occupants ACCS JGB MTPD PLNT P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, OSH Fire Marshal Safety Officer (JGB S.O.)
4.2/1 RE: SSPP 19.0	Hazard Communication Program	BTRA RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT MTPD P	Deputy Chief, OSH Deputy Chief, EMIH Chemical Safety Liaison Officer Safety Officers
4.4/4 RE: SSPP 18.0	Confined Space Entry Program		BMNT COO P	P		Deputy Chief, OSH Deputy Chief, EMIH Safety Officers
4.3/0 RE: SSPP 18.0	Bloodborne Pathogens Exposure Control Program	BTRA RTRA RSTO P	BMNT COO P	P	MTPD P	Deputy Chief, OSH Deputy Chief, EMIH Safety Officers

	SAFE Responsibility and Task Matrix					
	Source: Safety Rules and Procedure					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
4.5/1 RE: SSPP 18.0	Respiratory Protection Program	BTRA RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT MTPD P	Deputy Chief, OSH Safety Officers
4.6/0 RE: SSPP 18.0	Hearing Conservation Procedures		BMNT COO P	P	RCF RADS PRMT MTPD P	Deputy Chief, OSH Safety Officers
4.7/0 RE: SSPP 18.0	Energy Control Program Lockout/Tag out		BMNT COO P		RCF RADS PRMT P	Deputy Chief, OSH Safety Officers
5, 1/10 RE: SSPP 19.0	Environmental Management Policy Manual	BTRA RTRA RSTO P	BMNT COO P	P	RCF RADS PRMT MTPD P	Deputy Chief, EMIH Managers, EMIH Environmental Protection Oversight Administrator

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
P/I 4.10/3 RE: SSPP 17.0	Configuration Control Management	BTRA RTRA RSTO P	COO P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Fire Marshal
P/I 4.14/2 RE: SSPP 17.0	Design Control Board	BTRA, RTRA, RSTO, P	BMNT COO P			Chief Safety Officer Assistant Chief Safety Officers Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety
P/I 5.10/0 RE: SSPP 18.0	Workers' Compensation Claims Management Program	BTRA, RTRA, RSTO, P	BMNT COO P	P	Authority P RISK P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief, OSA Deputy Chief, EMIH
P/I 6.10/5	WMATA Employee Identification Cards	BTRA, RTRA, RSTO, P	BMNT COO P	P	Authority MTPD P	Chief Safety Officer Assistant Chief, Safety Deputy Chief, OSH
P/I 7.7.3/5 RE: SSPP 20.0	Drug and Alcohol Policy and Testing Program	BTRA MACS RTRA RSTO P	BMNT COO P	P	PRMT P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers
P/I 10.4/0 RE: SSPP 10.0	Accident/Incident Investigation Policy	BTRA MACS RTRA RSTO P	BMNT COO P	P	CFO CSCM PREL MTPD P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief Safety Officers
P/I 12.1/2 RE: SSPP 10.0	News Media Policy	BTRA, RTRA, RSTO, S	BMNT COO S		PREL P	Chief Safety Officer Assistant Chief Safety Officers

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
P/I 13.4/0 RE: SSPP 12.0	Office of Inspector General	BTRA, RTRA, RSTO, S	BMNT COO S	S	OIG P Authority S	Chief Safety Officer Assistant Chief Safety Officers
P/I 16.1/1 RE: SSPP	ADA Compliance and Jurisdiction of the Department of Access Services	BTRA, RTRA, RSTO, P	BMNT COO P	P	ACCS P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief, OSH Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety
OAP 113-12 RE: SSPP 21.0	Rail Warranty Administration for Programs/Projects, Services and Materials	RTRA RSTO P	COO P		PRMT P	Managing Director QICO QMA Manager QMA Inspection Personnel QMA Warranty Personnel Deputy Chief, OSA
OAP 100-12 RE: SSPP	Procedures for Requesting Track/Facility Escorts and Equipment	RTRA RSTO P	COO P			Deputy Chief, Rail Safety Manager, Rail Safety Safety Officers
OAP 113-01 RE: SSPP 21.0	Non-conforming Quality Hold and Containment		COO P		PRMT P	Managing Director QICO QMA Manager QMA Inspection Personnel QMA Warranty Personnel Deputy Chief, OSA
OAP 113-02 RE: SSPP 21.0	Rail Car Commissioning	RTRA RSTO P	COO P		PRMT P	AGM Rail Services CMO Rail Services CENV Engineers Deputy Chief, Rail Safety Fire Marshall Safety Certification Personnel Deputy Chief, OSA

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
OAP 113-03 RE: SSPP 21.0	QICO Audit Procedure	RTRA RSTO P	COO P		PRMT P	Managing Director QICO QMA Manager QMA Inspection Personnel QMA Warranty Personnel Deputy Chief, OSA
OAP 113-04 RE: SSPP 21.0	QICO Corrective Action	RTRA RSTO P	COO P		PRMT P	Managing Director QICO QMA Manager QMA Inspection Personnel QMA Warranty Personnel Deputy Chief, OSA
OAP 113-05 RE: SSPP 21.0	QMA Receiving Inspection Policy and Procedure	RTRA RSTO P	COO P		PRMT P	Managing Director QICO QMA Manager QMA Inspection Personnel QMA Warranty Personnel Deputy Chief, OSA
OAP 113-06 RE: SSPP 21.0	First Article Inspection Procedure	RTRA RSTO P	COO P		PRMT P	Managing Director QICO QMA Manager QMA Inspection Personnel QMA Warranty Personnel Deputy Chief, OSA
CMNT SOP 1.07 RE: SSPP 15.0	Transit Car Re-railing Action Plan	RTRA RSTO P	CMNT P			Deputy Chief, Rail Safety
CMNT SOP 1.04 RE: SSPP 15.0	Corrective Maintenance (Rail Vehicle)		CMNT CENV P		PRMT P	Deputy Chief, Rail Safety Deputy Chief, OSA
CMNT SOP 1.05 RE: SSPP 15.0	Preventive Maintenance (Rail Car)		CMNT CENV P			Deputy Chief, Rail Safety Deputy Chief, OSA

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
CMNT SOP 1.06 RE: SSPP 15.0	Deferred Maintenance (Rail Car)		CMNT CENV P	S		Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 203-02 RE: SSPP 16.0	Creation and Maintenance of Individual Training Records	RTRA RSTO OPMS P	COO P	P		Deputy Chief, OSH
OAP 203-03 RE: SSPP 16.0	Development and Revision of Curriculum Materials	RTRA RSTO OPMS P	COO P	P		Deputy Chief, OSH Deputy Chief, Rail Safety
OAP 208-01 RE: SSPP 15.0	Track Maintenance Management, Maintenance of Way	RTRA P	TRST P			Deputy Chief, Rail Safety
RE: SSPP 15.0	Track Standards Manual		TRST P			Deputy Chief, Rail Safety
OAP 208-02 RE: SSPP 15.0	Structures Maintenance Management Maintenance of Way		TRST P			Deputy Chief, Rail Safety
OAP 206-01 RE: SSPP 14.0 & 15.0	Equipment Testing and Performance Evaluation	RTRA RSTO P	COO P			Deputy Chief, Rail Safety Deputy Chief, OSA

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
OAP 206-02 RE: SSPP 14.0	Engineering Tests	RTRA P	COO P			Deputy Chief, Rail Safety Deputy Chief, OSA
OAP 200-02 RE: SSPP 14.0 & 15.0	Maintenance Operations Center	RTRA P				Deputy Chief, Rail Safety Manager, Rail Safety
OAP 200-03 RE: SSPP 15.0	Preventative Maintenance on Revenue Vehicles and Wayside Equipment		BMNT COO P			Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Deputy Chief, OSA
OAP 200-05 RE: SSPP 15.0	Corrective Maintenance		BMNT COO P			Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Deputy Chief, OSA
OAP 200-06 RE: SSPP 7.0	Engineering Modification Instruction	RTRA RSTO S	COO P			Deputy Chief, Rail Safety Deputy Chief, OSA
OAP 200-07 RE: SSPP 10.0	Computer Data Analysis (System Log)	RTRA P	COO P			Deputy Chief, Rail Safety Manager, Rail Safety
OAP 200-11 RE: SSPP 14.0	Maintenance Service Instructions (MSIS)		COO P			Deputy Chief, Rail Safety Deputy Chief, OSA

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
OAP 200-24 RE: SSPP 16.0	Train Operator Certificate of Qualification	RTRA RSTO ROQT P				Manager, Rail Safety QA Managers
OAP 200-25 RE: SSPP 8.0	Engineering Service Bulletin		COO P			Deputy Chief, Rail Safety Deputy Chief, OSA
OAP 200-26 RE: SSPP 10.0	Elevator Entrapments	RTRA RSTO P	ELES P			Deputy Chief, Rail Safety
OAP 200-33 RE: SSPP 18.0	Site Specific Work Plan	RTRA RSTO P	COO P			Deputy Chief, Rail Safety Safety Officers
OAP 207-07 RE: SSPP 10.0	Accidents involving BUSV Vehicles, MACS Vehicles	BTRA MACS P	BMNT P			Deputy Chief, Bus and MetroAccess Safety Manager, Bus and MetroAccess Safety Safety Officers
OAP 207-08 RE: SSPP 10.0	Unreported Accidents/Occurrences	BTRA P	BMNT P			Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess Safety
OAP 207-17 RE: SSPP 10.0	Accidents Resulting in Fatalities	BTRA P	BMNT P			Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess

	SAFE Responsibility and Task Matrix					
	Source: WMATA Manuals, Procedures, Plans and Policies					
	Interfaces					
Procedure Sec. #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
OAP 207-18 RE: SSPP 10.0	Impounding of Metrobus Vehicles	BTRA P	BMNT P		MTPD P	Deputy Chief, Bus and MetroAccess Safety Manager, Bus and MetroAccess Safety Safety Officers
OAP 207-21 RE: SSPP 14.0	Bus Pre-trip Inspection Procedures	BTRA P	BMNT P			Deputy Chief, Bus and MetroAccess Safety Deputy Chief, OSA QA Managers QA Officers Manager, Bus and MetroAccess Safety
OAP 508-17-1 RE: SSPP 18.0	Track and Structures Personnel Management Job Safety		TRST P			Deputy Chief, Rail Safety Deputy Chief, OSH Safety Officers
RE: SSPP 13	Interlocking Operator's Procedures Manual	RTRA RSTO P	COO P			Manager, Rail Safety
RE: SSPP 13	Terminal Operations Procedures	RTRA RSTO P	COO P			Manager, Rail Safety

	SAFE Responsibility and Task Matrix					
	Source: Metrorail Safety Rules and Procedures Handbook (MSRPH) 2011 Permanent/Temporary/Special Orders					
	Interfaces					
Order #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
RE: SSPP 13	MSRPH Rule Book, Procedures And Orders	RTRA RSTO P	COO P	P	Authority P MTPD P	Chief Safety Officer is a signatory to MSRPH and BSEH. Chief Safety Officer is vice-chair of the Rail Standing Safety Rules and Procedures Subcommittee. The MSRPH must be reviewed and approved by the Executive Safety Committee. Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, OSA Deputy Chief, EMIH Deputy Chief, Rail Safety Manager, Rail Safety Manager, Corporate Safety Programs and Analysis Safety Officers QA Managers QA Officers
S.O. 03-03	Continuity of Operations Plan (COOP) for Rail	RTRA RSTO P	COO P	P	Authority MTPD P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief, Rail Safety Fire Marshal Manager, Rail Safety Deputy Chief, OSA

	SAFE Responsibility and Task Matrix					
	Source: Metrorail Safety Rules and Procedures Handbook (MSRPH) 2011 Permanent/Temporary/Special Orders					
	Interfaces					
Order #	**Responsibilities and Tasks**	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
RE: SSPP 11.7	Continuity of Operations Plan (COOP) for Bus	BTRA P	BMNT P	P	Authority MTPD P	Chief Safety Officer Assistant Chief Safety Officers Deputy Chief, Bus and MetroAccess Safety Fire Marshal Manager, Bus and MetroAccess Safety Deputy Chief, OSA
RE: SSPP 11.7	Continuity of Operations Plan (COOP) for MetroAccess	MACS P		P	Authority MTPD P	Chief Safety Officers Assistant Chief Safety Officer Deputy Chief, Bus and MetroAccess Safety Fire Marshal Manager, Bus and MetroAccess Safety Deputy Chief, OSA

	SAFE Responsibility and Task Matrix					
	Source: National Transportation Safety Board Recommendations from Railroad Accident Report NTSB/RAR-10/02 June 22, 2009 Ft. Totten Collision					
	Interfaces					
Order #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	Responsible Personnel
14	Regularly review recorded operational data from the rail car onboard recorders	RTRA RSTO	COO P		ATU Local 689	Deputy Chief, Rail Safety
14	Regularly review recorded operational data from the Advanced Information Management System including data from the enhanced track circuit verification test	RTRA RSTO P	COO P		IT P ATU Local 689 P	Deputy Chief, Rail Safety
20	Develop and implement a program to monitor the performance of onboard event recorders and ensure they are functioning properly.		COO P			Deputy Chief, Rail Safety

6.0 Hazard Management Program

6.1 Overview

The management of identified hazards is a vital component of the WMATA System Safety Program.

Accidents and incidents are prevented by proactively identifying hazards, assessing the associated risk, developing appropriate mitigating measures, and tracking implementation of the corrective action to closure.

WMATA identifies hazards via several different internal and external sources.

SAFE's strategy is to capture this information electronically whenever possible to assist with analysis. WMATA categorizes each identified hazard according to the severity and likelihood of occurrence of the hazard.

The Hazard Management Program (HMP) applies to all WMATA employees and obligates everyone to be constantly vigilant for identifying hazards. It covers all aspects of WMATA's facilities, systems, equipment, vehicles, roadway, and work environments.

WMATA defines a hazard as a condition or set of conditions, internal or external to the system or system operation, which, when activated could cause injury or death or result in major system loss of equipment or property. These conditions must be mitigated.

The FWSO Event Notification and Report Matrix, code 18, page 22, defines a safety event, as a hazardous condition that, without immediate mitigation, consequences could reasonably include a fatality, serious injury, or requires stopping the current operation or activity. See Attachment 1.

For the purposes of this section of the document, the terms Hazard and Safety Event are inter-changeable.

Appendix A of the FWSO Oversight & Surveillance Plan, page A1, shows the Safety Event Notification Form. See Attachment 1.

SAFE is directly responsible for the implementation of the WMATA Hazard Management Program (see exhibit 6-1).

The program includes:

- Developing, updating and auditing the program;
- Training all designated WMATA employees and its contractors on the hazard management process; and
- Documenting and tracking all identified hazards to resolution.

Exhibit 6-2 illustrates a Matrix Function Organization that coordinates and implements the WMATA HMP. The coordinator and inter-departmental point of contact for the Rail HMP is the Deputy Chief, Rail Safety.

The Rail HMP Coordinator works with ROCC, RSTO, RTRA, COO, and RISK.

As the Rail HMP Coordinator, the Deputy Chief, Rail Safety is the primary point of contact with the FTA regarding WMATA rail hazard management.

The Bus HMP Coordinator is the Deputy Chief, Bus and MetroAccess.

The Bus HMP Coordinator works with BTRA, BMNT, Bus Engineering, Bus Planning, Bus Operations Control Center, MetroAccess, COO (PLNT, CENI) and RISK to identify, analyze and categorize bus related hazards and to develop and implement corrective action plans to resolve hazards.

Hazards identified in the bus system are not submitted to FTA.

The Deputy Chief, OSA will serve as occupational safety HMP coordinator and work with the responsible organization to identify, analyze, and categorize occupational safety related hazards and to develop and implement mitigating measures and CAPs.

The Deputy Chief EMIH is the coordinator for the environmental HMP and works with the responsible organization to identify, analyze, and categorize environmental related hazards and to help develop and implement mitigating measures.

MetroAccess contractors are responsible for developing and implementing a HMP for their organization.

The AGM/ACCS is responsible for monitoring the effective implementation of the contractors' HMP. SAFE will assist ACCS when requested by the AGM/ACCS.

Hazard Management Process

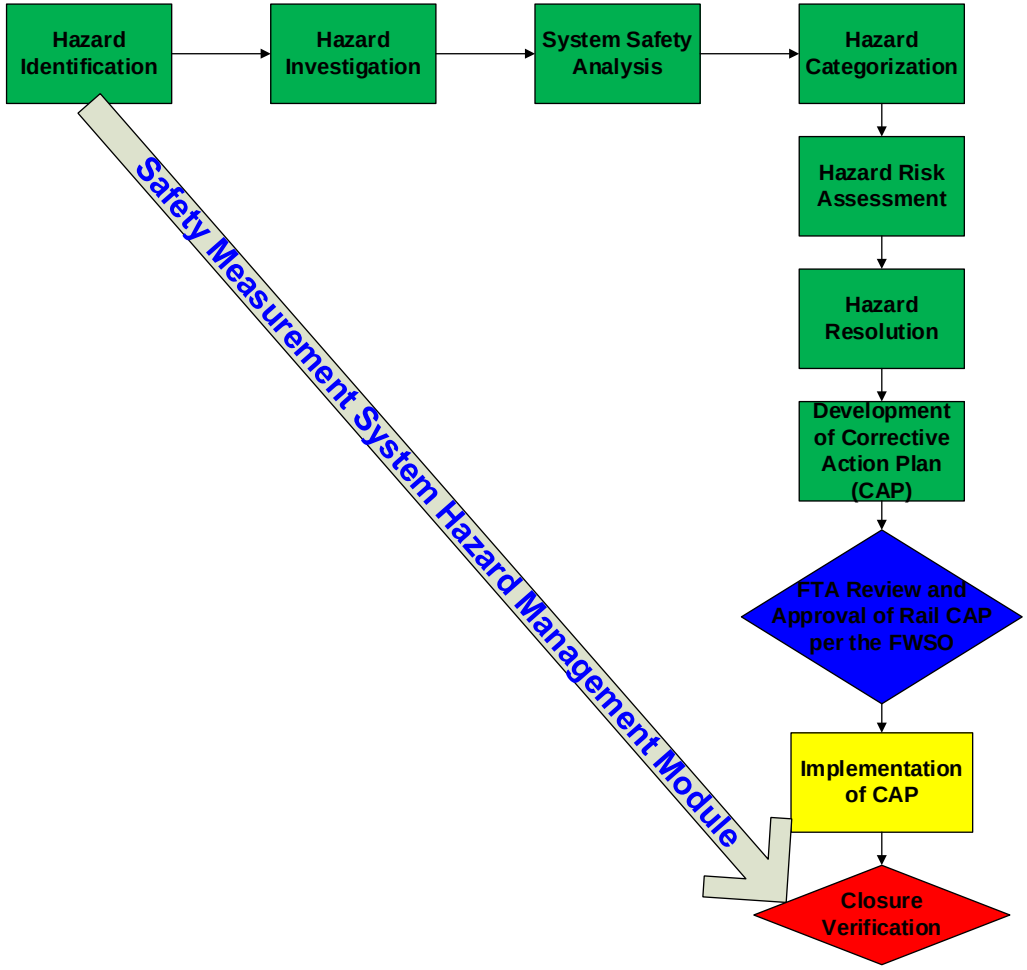


Exhibit: 6-1

Hazard Management Process
Matrix Function Organization

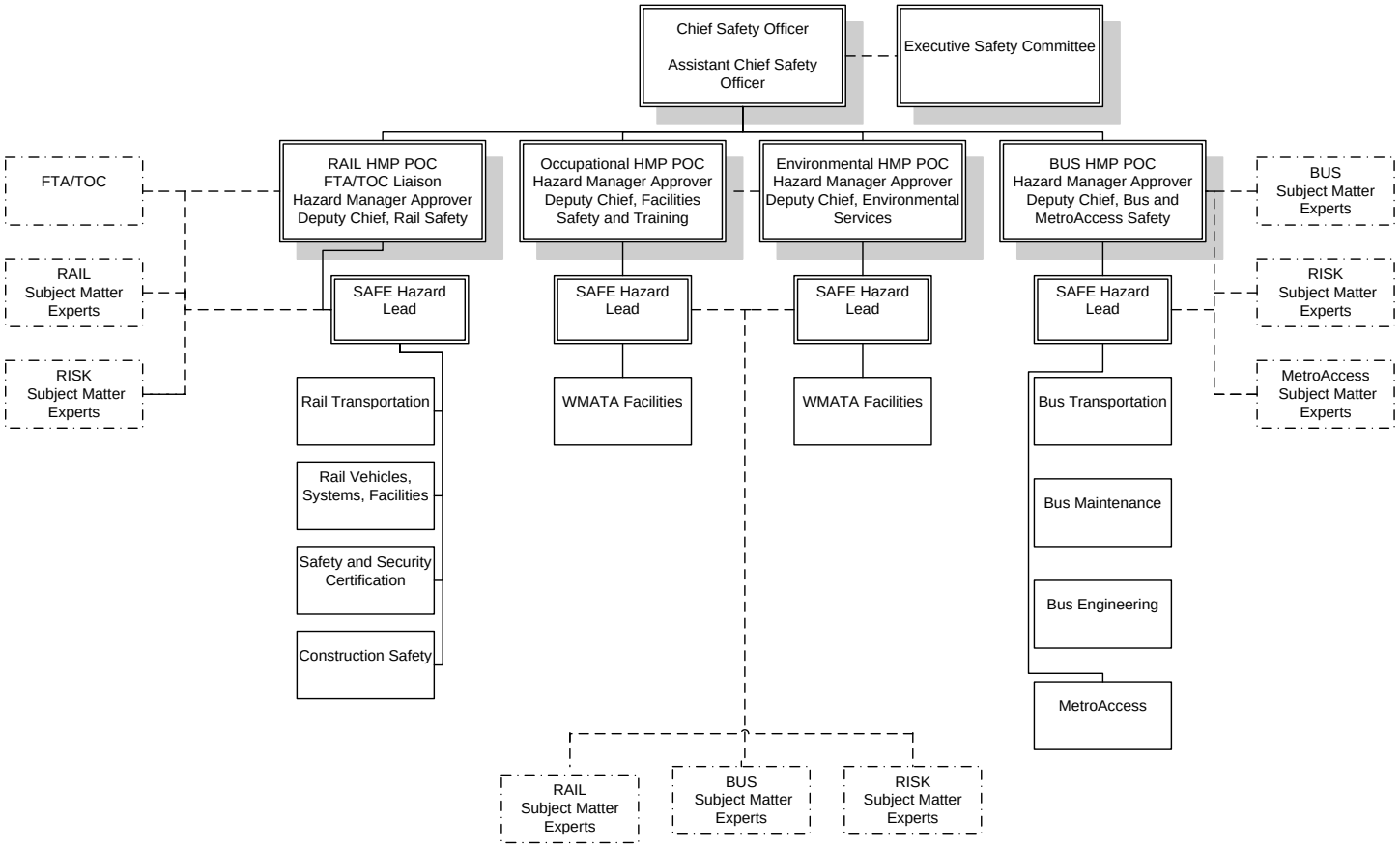


Exhibit: 6-2

6.2 Hazard Management Process

The Hazard Management Process:

- Defines WMATA's approach to hazard management and the implementation of an integrated system-wide hazard resolution process;
- Specifies the sources of, and the mechanisms to support, the on-going identification of hazards;
- Defines the process by which identified hazards will be evaluated and prioritized for elimination or control;
- Identifies the mechanism used to track, through resolution, the identified hazards;
- Defines minimum thresholds for the notification and reporting of hazards to oversight agencies; and
- Specifies the process by which WMATA will provide on-going reporting of hazard resolution activities to FTA. This activity may include weekly, monthly or quarterly meetings with WMATA to discuss hazard management issues.

6.2.1 Hazard Identification

Identification of hazards is the responsibility of all departments/offices/branches and individual employees and continuous management of hazards is the key to an effective system safety program.

Hazards that are identified are analyzed by SAFE in collaboration with the affected department for severity, frequency and cost feasibility of remedial action required to eliminate, reduce or control the hazard.

Hazards can be identified through a number of sources (see exhibit 6-3):

- System inspections, audits, regulatory inspections and observations;
- Accidents, incidents investigations;
- System reliability and failure reports;
- Formal system safety analysis;
- Ride checks and proficiency checks;
- Customer complaints;
- Employee safety concerns or issues reported to and managed by the Local Safety Committees;
- Transit industry experience;
- Safety Hotline; and
- Data mining of incident and maintenance databases.

Sources of Hazard Identification

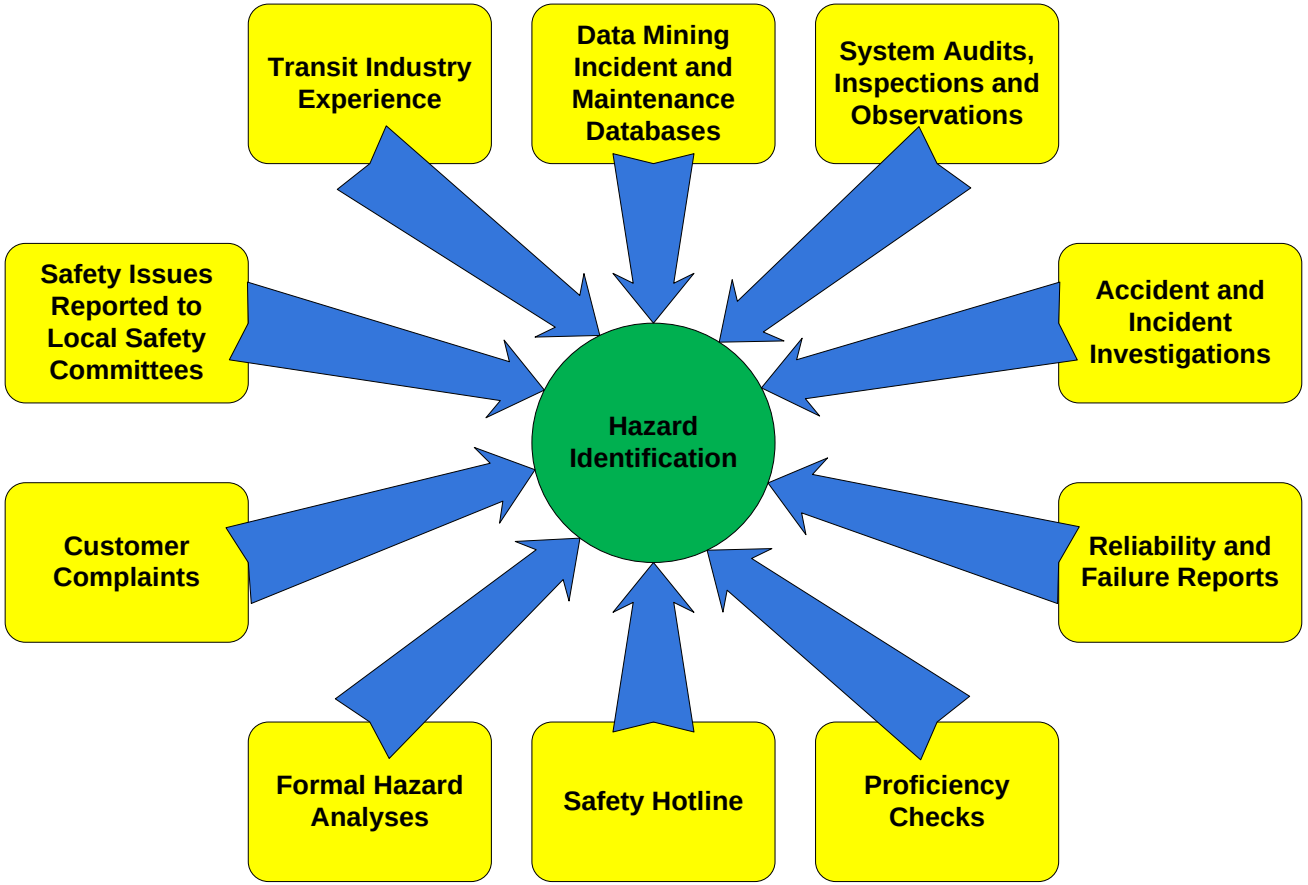


Exhibit: 6-3

6.2.2 Hazard Investigation

WMATA investigates identified hazards in accordance with the FWSO Oversight & Surveillance Plan. Please see Attachment 1, pages 13, 14, 20 (Code 7), 41 and Appendix B (Codes 1 and 2) of the FWSO Oversight & Surveillance Plan for the requirements for this section.

Bus related hazards are investigated in accordance with this section.

The extent of the hazard investigation depends on the complexity of the hazard and the preliminary categorization of the hazard.

SAFE will begin an initial investigation upon notification of the existence of a hazardous condition.

SAFE's awareness of a hazard can occur from any of the sources described in section 6.2.1 and exhibit 6-3.

6.2.2.1 Notification of FTA of Hazardous Conditions

The CSO will immediately notify the responsible department head, the ESC, GM/CEO and the FTA (for rail hazards only, by phone and e-mail) within two (2) hours of the determination that the hazard meets the required unacceptable criteria.

Note: Exhibit 6-5: Risk Assessment Matrices categorizes hazards that meet the above referenced criteria as "Unacceptable".

WMATA reports identified hazards in accordance with the FWSO Oversight & Surveillance Plan. Please see Attachment 1, pages 13, 14, 20 (Code 7), 41 Appendix A and Appendix B (Codes 1 and 2) of the FWSO Oversight & Surveillance Plan for the requirements for this section.

6.2.3 System Safety Analysis

Hazard analysis encompasses a set of methodologies that first searches throughout the system for the potential to do harm.

Having found such hazards, further analysis attempts to control any hazard at an acceptable level.

However, to do so first requires an understanding of the causes of the hazards.

Hazard analysis attempts to determine the set of primary events in the hazard generation process.

Upon identification of these events and completion of the analysis, WMATA (SAFE, COO and ACCS) will undertake to develop a resolution that will mitigate, control or eliminate the generation of hazards in ways that can reduce their risk to an acceptable level.

Hazard analysis also attempts to reduce the severity of accident events by introducing protective devices and equipment, procedures and/or forms of system modifications that reduce injury and the amount of property damage in an accident event.

While identifying every hazard is virtually impossible, there are two methods for orderly identification of hazards: inductive and deductive analysis:

1. The inductive hazard identification process consists of an analysis of system components to identify their respective failure modes and the effects they will have on the total system. This process assumes the failure of single elements or events and, through analysis, determines the potential consequential effects on the system or subsystem.
2. The deductive hazard identification process involves defining an undesired effect (e.g., collision, fire) and then deducing the possible conditions or system component faults (or combinations of them) that are necessary to cause the undesired effect.

The historical rail and bus passenger accident experience data, available through SMS_M, is a reliable source of input information to aid both the inductive and the deductive processes.

6.2.4 Hazard Categorization

Included in this section is the method that WMATA uses to categorize all identified hazards. Hazards are normally categorized in terms of severity and probability of occurrence.

6.2.4.1 Hazard Severity

Hazard severity is a subjective determination of the worst case that could be anticipated to result from human error, design inadequacies, component failure or malfunction. The categories of hazards based on the MIL-STD-882-C are as follows:

Category 1: Catastrophic – Operating conditions are such that human error, design deficiencies, element, subsystem or component failure or procedural deficiencies may cause death or major system loss and require immediate termination of the unsafe activity or operation.

Category 2: Critical – Operating conditions are such that human error, subsystem or component failure or procedural deficiencies may cause severe injury, severe occupational illness or major system damage and require immediate corrective action.

Category 3: Marginal – Operating conditions are such that they may result in minor injury, occupational illness or minor system damage and are such that human error, subsystem or component failures can be counteracted or controlled.

Category 4: Negligible – Operating conditions are such that human error, subsystem or component failure or procedural deficiencies will result in less than minor injury, occupational illness or less than minor system damage.

The categorization of hazards is consistent with risk-based criteria for severity; it reflects the principle that not all hazards pose an equal amount of risk to personal safety.

6.2.4.2 Hazard Probability

The probability of a particular event or a specific event occurring may be defined as a non-dimensional ratio of the number of times that a specific event occurs to the total number of trials in which this event will occur during the planned life expectancy of a system.

Generally, hazard probability is described qualitatively in potential occurrences per units of time, miles, trips/runs or passengers carried.

A hazard probability may be derived from the analysis of transit system operating experience, evaluation of WMATA safety data, the analysis of reliability and failure data, or from historical safety data from other passenger rail systems or bus systems. (See exhibit 6-4).

Probability of Occurrence of a Hazard			
Description	**Probability Level**	**Frequency For Specific Item(s) (Events/Hour)**	**Selected Frequency For Fleet or Inventory (Multiple of Single Items)**
Frequent	A	Likely to occur frequently (Greater than 10^{-3})	Continuously experienced (10^{-2}). MTBE is less than 1000 operating hours
Probable	B	Will occur several times in the life of the item (10^{-5} to 10^{-3})	Will occur frequently in the system (10^{-3}). MTBE is equal to or greater than 1000 operating hours and less than 100,000 operating hours.
Occasional	C	Likely to occur sometime in the life of an item (10^{-6} to 10^{-5})	Will occur several times (10^{-4}). MTBE is equal to or greater than 100,000 operating hours and less than 1,000,000 operating hours.
Remote	D	Unlikely but possible to occur in the life of an item (10^{-7} to 10^{-6})	Unlikely but can be expected to occur (10^{-6}). MTBE is greater than 1,000,000 operating hours and less than 100,000,000 operating hours.
Improbable	E	So unlikely, it can be assumed occurrence may not be experienced (Less than 10^{-7})	Unlikely to occur, but possible (10^{-7}). MTBE is greater than 100,000,000 hours.

*MTBE = Mean time between events

Exhibit 6-4

6.2.5 Hazard Risk Assessment

WMATA has adopted a system for assessing the level of risk for each identified hazard to determine what action(s) must be taken to correct or document the hazard risk. This risk assessment system has been incorporated into the formal system safety analysis that enables the ESC decision-makers to understand the amount of risk involved in accepting the hazard in relation to the cost (schedule, cost, operations) to reduce the hazard to an acceptable level.

The Risk Assessment Matrix (see exhibit 6-5) identifies the Hazard Risk Index (HRI) based upon hazard category and probability and the criteria for defining further actions based upon that index.

HAZARD FREQUENCY	SEVERITY CATEGORY 1	SEVERITY CATEGORY 2	SEVERITY CATEGORY 3	SEVERITY CATEGORY 4
Frequent (A)	**1A**	**2A**	**3A**	**4A**
Probable (B)	**1B**	**2B**	**3B**	**4B**
Occasional (C)	**1C**	**2C**	**3C**	**4C**
Remote (D)	**1D**	**2D**	**3D**	**4D**
Improbable (E)	**1E**	**2E**	**3E**	**4E**

Hazard Risk Index	Criteria by Index
1A, 1B, 1C, 2A, 2B, 3A	Unacceptable
1D, 2C, 2D, 3B, 3C	Undesirable – Management (ESC) decision
1E, 2E, 3D, 3E, 4A, 4B	Acceptable with ESC review
4C, 4D, 4E	ESC review will determine action required

Exhibit 6-5: Risk Assessment Matrices

Follow-up actions resulting from the risk assessment will be as follows:

Unacceptable: The ESC will review a hazard of this level of risk and the hazard must be mitigated in the most expedient manner possible before normal service may resume. An interim corrective action may be required to mitigate the hazard to an acceptable level while the permanent resolution is in development.

Undesirable: The ESC will review a hazard of this level of risk and the hazard must be mitigated unless a documented decision to manage the hazard until resources are available for full mitigation is issued by the CSO and forwarded to FTA (rail hazards only) for review and approval or disapproval.

Acceptable with review: The ESC will review a hazard of this level of risk and the CSO will determine if the hazard is adequately controlled or mitigated as proposed.

ESC review will determine action required: The ESC will review a hazard of this level of risk and determine if further mitigation or control is required.

The Risk Assessment Process is used to prioritize hazardous conditions and focus available resources on the most serious hazards requiring resolution.

6.2.6 Hazard Resolution

Hazard resolution is defined as the analysis and subsequent actions taken to reduce to the lowest level practical, the risk associated with an identified hazard.

Hazard resolution is not synonymous with hazard elimination. In a bus and rail transit environment, there are some hazards, which are impossible to eliminate and others, which are highly impractical to eliminate.

Reduction of risk to the lowest practical level can be accomplished in a variety of ways from protective and warning devices to special procedures.

Resolution of hazards will utilize the results of the Risk Assessment Process. The objectives of the hazard resolution process are:

1. Identify areas where hazard resolution requires a change in the system design, installation of safety devices or development of special procedures;
2. Verify that hazards involving interfaces between two or more systems have been resolved; and
3. Verify that the resolution of a hazard in one system does not create a new hazard in another system.

The ESC and SAFE will use the following methodologies to assure that system safety objectives are implemented throughout design, construction, procurement, and operations and those hazards are eliminated or controlled:

1. Design out or design to minimize hazard severity. To the extent permitted by cost and practicality, identified hazards will be eliminated or controlled by the design of equipment, systems and facilities.
2. Through design, will be controlled to the extent practicable to an acceptable level through the use of fixed, automatic, or other protective safety design features or devices. Provision will be made for periodic functional checks of safety devices and training for employees to ensure that system safety objectives are met.
3. When design and safety devices cannot reasonably nor effectively, eliminate or control an identified hazard, safety warning devices will be used (to the extent practicable) to alert persons to the hazard.
4. Where it is impossible to reasonably eliminate or adequately control a hazard through design or the use of safety and warning devices, procedures and training will be used to control the hazard. Precautionary notation will be standardized and safety-critical issues will require training and certification of personnel.

6.2.6.1 Hazard Resolution Management and Tracking

Resolution of identified hazards will be managed by SAFE, in collaboration with the responsible department, and approved and monitored by the CSO or ESC.

The SMS_M Hazard Management Module will be used for tracking identified hazards and the hazard resolution process.

The SMS_M Hazard Management Module includes the following information:

- Hazard description;
- Immediate mitigation (if needed);
- Origin of hazard (e; g accident investigation, capital project hazard analysis, employee safety committee);
- Date hazard was identified;
- Hazard analysis results (frequency and severity, hazard score, depending on analysis method);
- Proposed permanent hazard resolution;
- Hazard resolution verification/follow-up activities;
- Date hazard closed;
- Responsible investigator or SAFE Hazard Lead and Organizational Subject Matter expert; and
- Other relevant information.

Additional documentation, such as Corrective Action Plans (CAPs), must be developed for those hazards requiring complex and multifaceted resolutions.

The determinations of SAFE or the ESC are submitted to the ESC for hazard resolution through implementation of the FTA (rail hazards only via SMS_M access) approved recommendations.

SAFE manages the hazard resolution process through the SMS$_M$ Hazard Management Module, to which FTA has access.

The GM/CEO, the ESC, the affected or involved department heads and the FTA (rail hazards only, via SMS$_M$ access) will be kept informed of the status of hazard resolution activities by SAFE.

WMATA's ESC reviews hazards in accordance with its safety committee and hazards processes, and distributes the results internally as described above and to the FTA in accordance with the FWSO Oversight & Surveillance Plan. Please see Attachment 1, pages 14, 15-16, 22 (Code 18), 41-43 and Appendix A of the FWSO Oversight & Surveillance Plan.

6.2.7 Coordinating with the FTA Regarding the Hazard Management Process

Please see Attachment 1, pages 41-43, of the FWSO Oversight & Surveillance Plan, the Safety Risk Management section, for the requirements for this section.

6.2.8 Corrective Action Plan Development Process

Note: The CAP process described herein applies to Cap's that are developed under the requirements of: SSPP Element 6.0, "Hazard Management Program"; SSPP Element 10.0, "Accident and Incident Notification, Reporting and Investigation"; and SSPP Element 12.0, "Internal Safety and Security Review Program."

- **FTA Triennial On-Site Safety and Security Reviews**

  In accordance with the FWSO Oversight & Surveillance Plan, page 58, "With an FWSO representative participating, TOC will conduct the Three-year Safety Review (which is currently conducted in an ongoing manner) as per 49 CFR Part 659 requirements. As part of the Surveillance and Oversight Activities Forecast, the schedule for these reviews will be established and shared with WMATA's during an oversight coordination meeting between the parties."

  All safety- and security-critical aspects of WMATA's operations must be evaluated at least once every three years to determine whether the WMATA is following its own system safety and security procedures.

  Key objectives are as follows:

  1. Determine if the SSPP is being followed.
  2. Determine if the SEPP is being followed.
  3. Determine if hazards are being identified in a timely manner.
  4. Determine effectiveness of WMATA's internal safety and security review process.

- **Accident/Incident Investigations**

  Please see Attachment 1, page 13, of the FWSO Oversight & Surveillance Plan, Accident Investigation section, for the requirements for this section.

- **National Transportation Safety Board**

  If the National Transportation Safety Board (NTSB) conducts an investigation at WMATA, it may issue a formal report with recommendations to the transit agency.

  Should this occur, the transit agency will review the recommendations and determine their appropriateness. Unless the FTA and WMATA agree that, a specific recommendation is inappropriate; WMATA will develop and implement a CAP to address the recommendation.

- **Hazard Investigations**

  WMATA may initiate, or the FTA may specifically request, the investigation of a hazard. Generally, WMATA will conduct such investigations; however, regardless of whether WMATA or the FTA conducts a hazard investigation, the investigation report should contain findings and recommendations related to deficient conditions or other safety issues identified during the investigative process. In either case, the development of CAPs will be the primary responsibility of WMATA.

- **Internal Safety and Security Reviews and Reviews**

  The current federal rule requires the FTA to oversee WMATA's internal safety and security audit process.

  As part of its efforts to satisfy that mandate, WMATA must to provide written documentation verifying that CAPs resulting from ISSAs have been completed.

  Even after WMATA has closed an ISSA CAP for its own internal record-keeping purposes, the FTA may request additional information justifying closure or providing a status update.

  One such example may be where the required corrective action is scheduled to take place over several months.

- **Other Sources**

  The FTA may require the rail transit authority (RTA) to develop one or more CAPs to address findings and recommendations made because of peer reviews, APTA reviews, and other external reviews.

  Additionally, if the FTA becomes aware of a safety issue by some other means in the course of the implementation of the oversight program, such an issue will be

brought to the immediate attention of the appropriate RTA management so that an appropriate CAP can be prepared.

The timeframe for the CAP will be specified in written notification from FTA.

A hazard that can be immediately mitigated will not require a CAP.

6.2.8.1 Development of Corrective Action Plans (CAP)

Please see Attachment 1, pages 33-37, of the FWSO Oversight & Surveillance Plan, the Corrective Action Plans (CAP) section, for the requirements for this section.

6.2.8.2 CAP Implementation, Verification, and Completion

Please see Attachment 1, pages 33-37, of the FWSO Oversight & Surveillance Plan, the Corrective Action Plans (CAP) section, for the requirements for this section.

6.2.8.3 CAP Tracking

Please see Attachment 1, pages 38-40, of the FWSO Oversight & Surveillance Plan, the Monthly Corrective Action Plan (CAP) Tracking Update and Posting to Website section, for the requirements for this section.

7.0 Managing Safety in System Modification

7.1 System Modification

7.1.1 Rail Services

The Engineering Modification Instruction (EMI) process is the method utilized to assure that safety is not adversely affected by rail system modifications that are not subject to the System Safety and Security Certification Process.

This includes evaluation and assurance that a proposed modification does not adversely affect a system, vehicle, equipment or facility previously certified under the System Safety and Security Certification Process.

The Deputy Chief, Rail Safety will ensure that the required safety analysis is performed on the proposed modification to identify hazards that might arise because of implementation of the proposed modification.

The Deputy Chief, Rail Safety will ensure that identified hazards are entered into the Hazard Management Matrix. CENI and CENV are responsible for defining the process for initiating, evaluating, processing, and implementing modifications or improvements to rail systems, vehicles, facilities, and equipment.

For CENV EMI's, affected offices include CMNT, OPMS, and Rail.

For CENI EMI's, affected offices include SMNT, TRST and SAFE.

CENV uses Documentum for document workflows, and CENI uses SharePoint.

A final EMI package is compiled for final review and approval by designated managers of affected offices.

The approved packages is distributed to stakeholders including: SAFE, RTRA, RSTO, TRST, CMNT, SMNT, CENI, CENV, OPMS and QICO as applicable. QICO monitors the implementation of the modification.

Any proposed configuration change, except IT and CENI project management design changes, will be initiated by an EMI, and coordinated with RSTO, RTRA, SAFE, CENI, CENV, TRST, SMNT, CMNT, QICO and CFO with documentation, including hazard analysis results, provided to support the economic or functional reasons for the changes.

EMIs that involve a change to WMATA's standards must be submitted to the Design Control Board for approval and inclusion in the standards.

Configuration changes will be routed through the WMATA Design Control Board for review and approval in accordance with WMATA P/I 4.14/3, Design Control Board and P/I 4.10/3, Configuration Control Management. IT changes will be processed according to WMATA P/I 15.4/1, Network Infrastructure Policy and IT Standard 7.0.

7.1.2 Bus Services

The BMNT/BENG Bus Change Control Board (BCCB) meets monthly to review proposed changes to as-built configurations of Metrobus systems and equipment.

The board authorizes temporary change notices (TCNs) for testing changes and makes recommendations as to final disposition to the Chief Engineer, Bus, and Managing Director of Bus Maintenance (BMNT).

The board maintains and distributes Change Notices (CNs) and Field Change Notices (FCNs) with an Engineering Modification Instruction (EMI) to the Shop and Division Superintendents.

The BCCB is composed of individuals appointed by the Chief Engineer, Bus, and the Managing Director, BMNT.

In addition to BMNT/BENG chairpersons and members, a member from MTPD, SAFE, QICO, Reliability Engineering and Training are also in attendance at these meetings.

The quorum requires 2/3rd of the members be present at all meetings. Approval of any changes requires a 3/4th majority of the members present. All dissenting views are made part of the BCCB recommendations.

This method ensures that safety is not adversely affected by Bus system modifications.

7.2 New Systems/New Equipment

Safety assurance of new systems, equipment and vehicles begins with the basic design and in the development of specifications to ensure that, safety requirements and standards are incorporated.

Safety Design Reviews (see section 5.6.3, System Safety Design Review, page 78) are held to ensure that proposed designs meet safety requirements and are consistent with the requirements of Policy/Instruction 4.10/3, Configuration Control Management.

During reviews consideration is given to such items as system interfaces; human factors; environmental conditions; isolation of energy sources; materials compatibility; use and long-term storage of critical materials; emergency response capability; including emergency egress and rescue paths; fire sources and measures for protection; equipment layout; lighting requirements; and maintenance requirements.

In these reviews, maximum use is made of existing data, reliability analyses, and other applicable design analyses and information.

Hazard analyses or evaluations are conducted on test plans, procedures, and related test equipment; operational plans, procedures, and related operational support equipment; demonstration and evaluation plans, procedures, and related support equipment; and on maintenance plans, procedures, and related maintenance equipment.

Results of these analyses or evaluations are used to verify the required safety level or to identify the necessary changes for incorporation into the safety provisions.

Testing is performed on critical components and assemblies as indicated in safety reviews to identify hazards.

The Deputy Chief, Rail Safety ensures that Identified rail related hazards are entered into the Hazard Management Matrix for resolution.

The Deputy Chief, Bus and MetroAccess Safety ensures that bus related hazards are entered into the Hazard Management Matrix for resolution.

The inherent safety of equipment and its impact on WMATA as a system is demonstrated during system testing and demonstration activities.

Documentum is used for configuration control of technical documents relating to the WMATA Metrorail and Metrobus infrastructure.

In addition to providing any WMATA employee web based access to the as-built electrical documents associated with this project, it also provided advanced document search capabilities with the addition of Metadata/attribute information associated with each technical document, plus it established basic file folder structures and user privilege levels.

Additionally, user features are also planned, such as a graphical user interface and an electronic document review and approval process.

The methodologies and business processes developed under OAP 200-06 to direct COO EMIs are, broadly speaking, extensible throughout WMATA.

The Product Life Cycle Management ("PLM") program is responsible for:

- Implementing a PLM software tool to track asset design and configuration data from design or purchase of an asset to retirement;
- Working with all WMATA operational and engineering units to document (if necessary), reengineer as appropriate, and implement their processes for configuration management; and
- Assure availability of configuration management and related data to all interested parties in the authority.

8.0 Safety and Security Certification

8.1 Overview

Safety and Security Certification (SSC) is the process of verifying that certifiable elements and items comply with a formal list of safety and security requirements developed for major construction, rehabilitation or vehicle procurement projects.

Certifiable elements are those project elements that, as determined through hazard analysis and/or threat and vulnerability assessments, can affect the safety and security of customers, employees, emergency responders or the public.

The requirements are defined by design criteria, contract specifications, applicable codes, and industry safety and security standards.

SSC is accomplished through a collaborative effort between SAFE, MTPD and the applicable Project Team, which may include representatives from other WMATA departments as well as Project contractors.

It is imperative that the SSC process is completed and all “unacceptable” and “undesirable” hazards and security risks, associated with the use of a new or rehabilitated system or facility are eliminated or effectively mitigated prior to the start of in-service use.

The SSC consists of operational and non-operational elements for any new or rehabilitated rail line segment, rail related system, or opening of a rail related facility must be fully completed prior to entering the pre-revenue demonstration phase of the project.

The pre-revenue demonstration phase must be started a minimum of 30 days in advance of the anticipated opening date.

This timeframe is required to allow WMATA and FTA to conduct an operations readiness review of the system or facility being placed into service.

When establishing an opening date for the rail line segment, system, passenger vehicle use, or facility, this timeframe must be considered.

Non-rail related facilities, vehicles, equipment, or systems are not permitted to be placed into service prior to the issuance of the Safety and Security Certificate.

The scope of the SSC process encompasses equipment, vehicles, facilities, including rehabilitation projects and operating and maintenance plans and procedures, including emergency response procedures:

- **Facilities**: Operations and maintenance facilities, bus bays and rail stations, Roadway, Park and Ride facilities, signal and communications systems buildings

- **System Elements**: Vehicles, voice and data communications, signal systems, grade crossings, third rail power, power substations, intrusion detection systems, fare vending machines

- **Equipment Maintenance and Inspection Training**: Maintenance facilities, automatic train control, communication systems, third rail power and substations, fiber optics, vehicles, automatic fare card collection equipment and mechanical equipment

- **Operations and Emergency Training**: Vehicle operators, field supervisors, controllers, vehicle mechanics, automatic train control technicians, communications technicians, automatic fare card collection equipment technicians, third rail power and substation technicians and mechanics, track inspectors, repairers and laborers, jurisdictional law enforcement, fire department and emergency medical personnel

- **Operations Plans and Procedures**: Emergency Preparedness Plans, rulebooks, standard operating procedures, emergency and contingency procedures.

8.2 Safety and Security Certification Plan

The *WMATA Safety and Security Certification Plan* (SSCP) (March 2015) is the document that implements the SSC program and process.

The SSCP is intended to ensure compliance with the applicable regulatory codes: *Code of Federal Regulations* title 49, part 633, *Project Management Oversight*; *Code of Federal Regulations* title 49, part 659, *Rail Fixed Guideway Systems; State Safety Oversight* and *FTA Circular*, C 5800.1, August 1, 2007.

The SSCP ensures:

- That design and operating hazards and security vulnerabilities are identified, evaluated and properly controlled or mitigated, prior to the commencement of passenger service;

- That all safety and security critical elements are evaluated for compliance with the identified safety and security requirements during the design, construction, installation, testing, and start-up phases of a project; and

- That WMATA systems are operationally safe and secure for customers, employees, emergency personnel and the public, prior to entering or re-entering after modification, revenue service or use by WMATA personnel.

A project specific SSCP must be developed and implemented during the preliminary design phase of the project for WMATA major capital projects of $100 Million or more that receive FTA funding.

Examples of project specific SSCPs are new vehicle procurements or system extensions.

8.3 Safety and Security Certification Process

The Safety and Security Certification Process consists of the following ten major steps that begin with system planning and design and continue into the start of revenue service:

Step 1 Develop safety and security design criteria.
Step 2 Identify safety and security certifiable elements and prepare certifiable Items List (CIL) of safety and security requirements.
Step 3 Review compliance with design criteria conformance checklist.
Step 4 Perform construction specification conformance.
Step 5 Identify additional safety and security test requirements.
Step 6 Perform safety systems tests (normally as part of contractual requirements).
Step 7 Monitor and verify that systems integration tests have been conducted.
Step 8 Manage “Open Items” from the Safety Critical Items List (SCIL).
Step 9 Verify operational readiness.
Step 10 Issue overall safety and security certificate.

Issue safety and security verification report.
Conduct follow-up and final project closeout.

The SSC process provides traceable verification that safety-critical (see Appendix C: Glossary of Terms) and security systems, subsystems, procedures and training programs have been reviewed for compliance with applicable transit related safety and security requirements.

8.4 Safety and Security Certification Review Committee

The Safety and Security Certification Review Committee (SCRC), a subcommittee of the ESC, is established to oversee implementation of the SSC process and for ensuring that certifiable levels of operational safety and security items are completed and verified prior to the start of new revenue service, or the placement of rehabilitated facilities and systems into service/use.

The SCRC is composed of the CSO (or designee), who is the Chair, WMATA executives and senior managers, involved in and/or responsible for, or the end user of the products of the project and FTA representatives.

The SCRC is a subcommittee to the ESC. The SCRC is involved in the Hazard Management Process of the project, and reviews all identified unacceptable and undesirable hazards, as well as the resolution of such hazards.

The SCRC forwards the resolution of identified unacceptable and undesirable hazards to the ESC, which approves the hazard resolution and forwards the resolution for unacceptable hazards to the FTA for its review and approval.

The FTA performs SSC surveillance and oversight activities in accordance with the FWSO, Record Reviews section, pages 54-56 and the Audits section, page 57. See Attachment 1.

The CSO and/or ESC reviews and approves proposed restrictions, exceptions or acceptable equivalences to be added to the Safety and Security Certificate, only when absolutely necessary, in the event that a portion of the system will not be available on time or if equipment to be placed into service is not complete.

Such approved restrictions, exceptions or acceptable equivalencies will be assigned completion dates, at which time they will expire.

The completion of the work and the resulting removal of the restrictions, exceptions or acceptable equivalencies will be closely monitored by the ESC via the SCRC.

The final Safety and Security Certificate for the project will be issued when the work, on the affected portion of the system or the equipment, is completed and it is verified that the

hazard or discrepancy is permanently resolved and approved restrictions, exceptions or acceptable equivalencies may be removed.

A full description of the roles and responsibilities of the SCRC are included in the Policy Instruction 10.2/3- Safety Committees as well as the SSCP.

The Safety and Security Certification Verification Report and the final Safety and Security Certificate are reviewed and approved by the SCRC.

The report summarizes the safety and security certification effort and the readiness of the line segment, facility, or system to be placed into service; an annotated matrix of the Critical Items List indicating the status of each item; Open Items List; and recommended actions and schedule for permanently closing out all open items, restrictions, and approved temporary measures.

The report includes copies of the certification checklists, and Certificates of Compliance for each certifiable element, and the System Safety and Certification document.

The Final Safety and Security Certificate is signed by the CSO and the GM/CEO.

The document certifies that all facilities, vehicles, equipment and procedures function in a safe and secure manner and that the facilities, systems, equipment, or vehicles are safe and secure for revenue service or use by the Authority.

The Safety and Security Certification Verification Report and the Final Safety and Security Certificate for rail projects are submitted to FTA for review.

The CSO, subject to the GM/CEO's approval, can apply the requirements of the SSCP to any project that is not covered by Code of Federal Regulations title 49, Part 633. Resource availability is considered when making these determinations.

8.5 Bus Safety Certification

Bus Engineering (BENG) Safety Certification is the process for verifying that certifiable elements comply with a formal list of safety and security requirements developed for bus procurement projects.

Certifiable elements are those project elements that can affect the safety and security of customers, employees or the public.

The requirements are defined by design criteria, contract specifications, industry safety and security standards.

The BENG Safety Certification Process includes the following:

- Safety Certifiable Checklist which lists the inspection item, the requirement/specification for that item, the inspection instruction, actual findings, the name of the safety officer who performed the inspection, date inspected and remarks that include any discrepancies found and the date the discrepancy was resolved;
- Pre-delivery Configuration Audit is a guide for inspection on at least one bus (first article) for each order and is performed by the on-site inspector; and
- Certificate of Compliance from the bus manufacturer signifying that all applicable safety and security requirements have been completed and the indicated buses can be placed into service. This document is signed by the Chief Safety Officer, AGM- Bus Services, Chief-MTPD, the Chief Operating Officer and the General Manager.

The above documents are attached to a memorandum from the Managing Director, BMNT through the AGM-Bus Services and is sent to the CSO-Safety seeking a Certificate of Compliance for a designated fleet of buses. Once approval is received, the buses are then placed in revenue service.

9.0 Safety Data Acquisition

9.1 Safety Data Overview

SAFE has implemented a Safety Measurement System (SMS_M) for BUS and Rail to collect and analyze safety data and generate safety reports for distribution to executive, senior and middle management and FTA (rail data only).

The SMS_M is the application used by BUS, MACS, and RTRA, RSTO and COO to enter and manage all accident and incident data.

The SMS_M integrates the data from existing WMATA enterprise applications, ensuring that SAFE has access to the safety related data of all WMATA departments.

The SMS_M is used to track the implementation and closure of corrective actions to eliminate or control hazards as well as Bus and Rail corrective actions.

One capability of the SMS_M is to notify, automatically, via e-mail, the appropriate SAFE staff and departmental staff of any required action regarding a hazard.

The following are sources of data, integrated through the SMS_M that SAFE utilizes to collect data and identify hazards for entry into the Hazard Management Process:

- Reports and observations from operators and other field personnel regarding hazards associated with Authority vehicles, schedules, routes, policies and procedures.

- Information, experiences, and ideas from support departments.

- Observations of facilities and operations hazards, by administrative personnel.

- Results from drills, exercises and emergency response to accidents and incidents.

- Formal hazard analyses using the inductive process by analyzing system components to identify failure modes and effects on the system and personnel.

- Failure modes include conditions such as doors or switches failing to open or close, or acting improperly or inadequately.

  Examples of formal hazard analyses include Preliminary Hazard Analysis (PHA), Operating Hazard Analysis (OHA) and Failure Modes and Effects Analysis (FMEA).

- Formal hazard analysis using the deductive process to identify sequential and concurrent conditions, which are required to support a specific operation or task.

  An example of this type of analysis is the Fault Tree Analysis and Root Cause Analysis.

- SAFE conducts inspections and audits of facilities and equipment to identify and document safety, environmental and industrial hygiene hazards on a proactive basis.

  The criticality of hazards identified during inspections is determined by SAFE and is included in the inspection report.

  Most hazards identified during inspections are corrected or mitigated in a short period of time.

  The above list is in no way all-inclusive and SAFE will use additional methods as required.

  If hazards are identified, which might be system–wide or that would require design work and special funding, they would be entered into the SMS_M Hazard Management Module by SAFE and tracked to completion.

- TRST, SMNT, CMNT, BMNT, ELES, QICO, SAFE (OSA) and PLNT perform preventative maintenance and periodic inspections and audits in accordance with established procedures described in SSPP Elements 14 and 15.

  Inspection information is entered into the maintenance application MAXIMO.

MAXIMO is used by the COO to generate work orders for repair work on vehicles, equipment and facilities.
Reliability and failure data is also generated from MAXIMO.

SAFE data analysts have access to the MAXIMO information and review it frequently as a source for identifying hazards.

MAXIMO is also integrated into the SMS_M.

- SAFE can access the General Orders and Track Rights System (GOTRS) to review planned work on the rail system.

  Reports can be generated from GOTRS by SAFE to evaluate work sites and review how work sites are established by COO personnel.

  Because ROCC enters daily controller notes and actions directly into GOTRS, SAFE can generate reports to evaluate compliance with SOPs and work rules by those crews performing work in the rail system.

  In this manner, SAFE can identify hazards, rules and SOP violations for follow-up action and for entry into the Hazard Management Process.

- SAFE staff may use Root Cause Analysis methodologies to review accidents to identify the root cause of the accidents, identify and analyze hazards and develop corrective action plans.

- Root Cause Analysis methodologies have been integrated into the SMS_M.

- The Rail Supervisor Daily Activity Report (RSDAR), Samsung Galaxy Smartphone application, is used to perform ride checks of train operators by RSTO field supervisors. Each supervisor conducts ride checks every week.

  Each supervisor conducts ride checks on a daily basis.

  This data is incorporated into the SMS_M, which allows RSTO supervisors to notify SAFE of hazards and allows SAFE to review the data for purposes of hazard identification. Identified hazards are then entered into the Hazard Management Matrix by SAFE personnel.

- The Customer Service Branch receives comments, complaints and commendations from Metro customers and the public.

  Safety related issues are forwarded to SAFE for evaluation and follow-up action.

  SAFE then determines if this information should be entered into the Hazard Management Matrix, and if it is, tracks the hazard to resolution.

- The Workers' Compensation and Third Party Claims database is also integrated into the SMS_M and is another source of data used to identify hazards.

  The SAFE data analyst reviews this information daily and enters identified hazards into the Hazard Management Matrix.

- SMS_M also provides access to safety related data in Trapeze (route planning and scheduling) and various PeopleSoft applications, including training records applications.

BOCC, ROCC, MACS OCC, and MTPD Communications provide accident and incident notification to SAFE via an automated, wireless-based text messaging system; e-mail incident reporting system; and telephone contact of SAFE personnel on a 24/7 basis.

Notifications are made to SAFE in accordance with the criteria set forth in SSPP section 10.2, the WMATA Incident and Accident Investigation Policy, P/I No.10.4/0; and the FTA National Transit Database (NTD) reporting criteria.

In addition to those criteria, BOCC and ROCC report any accident, through the SMS_M, that results in the rendering of first aid and/or the transport to a medical facility of one or more passengers.

SAFE utilizes this information from initial notifications, in conjunction with SMS_M reporting, as a starting point for its collection of accident and injury data and reports.

SAFE develops the required reports to provide safety management information to executive and senior management and to the WMATA Board Safety and Security Committee and the FTA.

9.2 Access to Data Reports Prepared by SAFE

SAFE produces and distributes the following reports throughout the Authority to communicate safety data to all levels of the organization:

- Internally Distributed Reports.

  - Rail Passenger and Transit Facility Occupant Injuries.

  - Bus Accidents – Report of passenger and collision accidents by type.

  - Reports of employee injuries by type and cause are forwarded to regional safety officers for distribution to the managers of their assigned facilities.

  - Safety Performance Reports - A Safety Performance report is submitted quarterly and annually to the WMATA Board Safety and Security Committee and FTA. The report provides accident rate data regarding bus and rail

passengers. Employee and contractor lost time injury data in the construction and industrial areas are reported.

- Monthly Safety Report - This report is submitted monthly to the GM/CEO and ESC. This report includes the activities performed by SAFE staff for the previous month, safety performance data, and it tracks the progress of accident investigations, internal safety and security reviews and hazard resolution.

- Daily Accident/Incident Reporting

- Accidents and Incidents are recorded daily by RAIL and BOCC in SMS_M.

- Reports Submitted to External Agencies

  - FTA – National Transit Database: Requires monthly and real-time reporting of incidents

  - FWSO: Annual report of internal safety and security reviews; Preliminary Accident; Incident and Unacceptable Hazardous Condition Reports and Chronology of Events; Accident/Incident/Unacceptable Hazardous Condition Investigation Oversight Record; Monthly Management Report and Quarterly Accident; and Unacceptable Hazardous Condition Summary Reports.

10.0 Accident/Incident Notification, Investigation and Reporting

10.1 Overview

Investigations are performed in accordance with WMATA's Incident and Accident Investigation Policy Instruction, 10.4/0, applicable sections of 49 CFR Part 659 as well as the FWSO Oversight & Surveillance Plan, pages 26-31, Safety Event Investigation and Reporting section.

The FWSO Event Notification and Report Matrix, codes 1-17 and 19-25, pages17 to 24, define the reportable FTA Rail safety events. See Attachment 1.

Appendix A of the FWSO Oversight & Surveillance Plan, page A1, shows the Safety Event Notification Form. See Attachment 1.

For the purposes of this section of the document, the terms, Incident and Accident, and Safety Event are inter-changeable.

The ESC and its subcommittees review investigation reports of accidents and incidents defined in section 9.2. NTSB recommendations and FTA approved corrective action plans are tracked to completion by SAFE and reviewed by the ESC and WMATA Board Safety and Security Committee as appropriate.

At the discretion of the chair of the ESC (CSO), an ad hoc investigation committee may be assigned to perform accident or hazardous condition investigations, as an expansion of the SAFE investigation. This is described in detail in the aforementioned Policy Instruction.

SAFE evaluates accident and incident reports provided by all departments and provides the appropriate level of investigation and/or follow-up to ensure that the required corrective action is implemented.

WMATA will meet with the FTA monthly to review a summary and status of all reported safety events and document this in the Monthly Safety Event Summary. The Monthly Safety Event Summary will serve as a record of all reported safety events.

10.2 Accident/Incident Notification Criteria

Please see the Safety Event Notification section, pages 15 -16, of the FWSO Oversight & Surveillance Plan for the requirements for this section. See Attachment 1.

10.3 Internal Accident/Incident Notification Procedure

SAFE must be notified (within 10 minutes) of the types of accidents/incidents listed in section 10.2 and of other accidents and incidents as stipulated in the WMATA Incident and Accident Investigation Policy, by the ROCC, MOC, and MTPD Central Communications.

BOCC, MACS OCC, and MTPD will notify SAFE of bus/paratransit related fatalities, bus/paratransit collisions with persons, bus/paratransit fires and bus/paratransit collisions resulting in property damage equal to or exceeding $25,000.

Notifications must be made to the SAFE On-call Safety Officer.

SAFE issues a monthly on-call schedule to OCC, MOC, and MTPD and provides additional contact information for SAFE personnel.

10.4 External Accident/Incident Notification Procedure

NTSB Notification

SAFE notifies the NTSB, via the National Response Center (NRC) (800-424-0201), no later than two (2) hours after an accident that results in the following:

- A passenger or employee fatality or serious injury to two or more crew members or passengers requiring admission to a hospital;
- The evacuation of a passenger train;
- Damage to a tank car or container resulting in release of hazardous materials or involving evacuation of the general public; or

- A fatality at a grade crossing.

SAFE notifies the NTSB, via the NRC, no later than four (4) hours after an accident, which does not involve any of the circumstances above but which results in the following:

- Damage (preliminary estimate) of $150,000 or more for repairs or the current replacement cost, to railroad and non-railroad property; or
- Damage of $25,000 or more to a passenger train and railroad and non-railroad property.

FTA and USDOT Crisis Management Center Notification

Please see the Safety Event Notification section, pages 15-16, of the FWSO Oversight & Surveillance Plan for the requirements for this section. See Attachment 1.

10.5 Accident/Incident Investigation Procedures

Please see the Accident Investigation section, page 13, the Safety Event Investigation and Reporting section, pages 26-31 and the General Requirements section, pages 33-34, of the FWSO Oversight & Surveillance Plan for the requirements for this section.

10.5.1 FWSO Led Audits/Investigations/Record Reviews

FWSO led audits will be performed in accordance with FWSO Oversight & Surveillance Plan, page 57, FWSO Led Audits section.

FWSO led investigations will be performed in accordance with FWSO Oversight & Surveillance Plan, page 13, FWSO Accident Investigation section.

During FWSO surveillance and oversight, activities the FWSO may perform record and report reviews. These reviews will be performed in accordance with the FWSO Oversight & Surveillance Plan, pages 54-56, Record Review section.

10.5.2 NTSB Conducted Investigation

The NTSB may investigate a reportable event to achieve its primary function to promote safety in transportation. In such cases, the NTSB is responsible for the investigation; the determination of facts, conditions, and circumstances; the cause or probable cause or causes; and recommendations to reduce the likelihood of recurrence of an accident or incident.

In the event of a NTSB investigation, the FTA and WMATA should participate as official parties to the investigation.

10.6 Accident/Incident Reporting and Documentation

- Draft Final / Final Accident-Incident Investigation Report:

  At the conclusion of its investigation, WMATA must submit a draft final accident or incident report authored by SAFE or its authorized representative to the FWSO.

  At a minimum, the draft final written report must meet all of the requirements set forth in the FWSO Oversight & Surveillance Plan, applicable sections.

  The FTA will work with WMATA to close accident/incident investigations with consideration of needed investigative processes, including (but not limited to) transportation investigations, derailment reports, police investigations, medical examiner reports, and other required materials to close an accident/incident investigation.

  All draft final accident/incident reports produced for the FTA must contain, at a minimum, the information contained in the following three (3) statements:

  - More information may be included, based on WMATA's accident investigation procedures or external recommendations (such as APTA Accident Investigation Procedure Standards, RT-SOP-002-02).

  - The FTA may request more information in order to gain information about a particular accident/incident or about accident information trends.

  - Unless the FTA specifically requests that WMATA's designated safety and/or security staff produce their own accident investigation report, WMATA may use multiple documents (e.g., field reports, analyses, logs) to fulfill the report content requirements in this section. WMATA may also use a summary report to help fulfill the reporting requirements in this section.

Please see the Safety Event Notification section, page 15-16, of the FWSO Oversight & Surveillance Plan for the requirements for this section. See Attachment 1.

The process for development and submission of Safety Events Reports will be in accordance with the reporting requirements of the FWSO Oversight & Surveillance Plan, Event Notification and Report Matrix, pages 17-24 and the Safety Event Investigation Documentation and Reporting Requirements, pages 28-29.

Appendix A of the FWSO Oversight & Surveillance Plan, page A1, shows the Safety Event Notification Form. See Attachment 1.

10.6.1 WMATA Requirements

All employees having a direct knowledge of an accident or incident must file a written report as required by the MSRPH and BSEH.

Accidents and incidents are investigated by SAFE, and the office involved, in accordance with WMATA Policy/Instruction 10.4/0, Incident and Accident Investigation.

Rail accidents and incidents are reported and investigated in accordance with the FWSO Oversight & Surveillance Plan.

Reports are submitted for evaluation to SAFE, which in turn may conduct additional investigations when required.

All accident and incident reports are reviewed by SAFE and the involved office to determine cause, identify corrective actions, and make recommendations to prevent recurrence.

All accident and incident reports are evaluated to determine any additional actions that are required, to initiate response to any recommendations that require action by departments other than the involved office, and to determine if additional investigation is required.

Information regarding accidents, incidents and system operation is obtained through the following reports:

- Reports generated from the Safety Measurement System;
- SAFE maintains and distributes a computerized OSH 300 Occupational Injury and Illness Report; and
- Risk Management reports regarding Workers' Compensation and Third Party Claims generated from the Sedgwick database.

WMATA will meet with the FTA monthly to review a summary and status of all reported safety events and document this information in the Monthly Safety Event Summary. The Monthly Safety Event Summary will serve as a record of all reported safety events.

10.7 Corrective Action Resulting from Accident Investigations

The corrective action process is described in SSPP section 6.2.8

11.0 Emergency Management

11.1 Responsibilities for Emergency Management

The WMATA Office of Emergency Management (OEM_M) is part of the Metro Transit Police Department (MTPD), and works to support all WMATA departments as needed.

The major goals and activities of OEM_M involve preparedness as the top priority with a focus on safety and in turn compliment SAFE's responsibilities and activities.

The Office of Emergency Management focuses on WMATA's preparedness, through the building of capabilities to mitigate, respond to, and recover from incidents.

In addition, OEM_M supports preparedness efforts related to special events that impact transit operations.

When events or incidents occur that impede WMATA's normal transit operations, the impact can cause transportation issues from a very localized to a regional scale.

Effective emergency management minimizes these adverse impacts to transit operations, which also minimizes negative impacts to the National Capital Region (NCR) transportation network.

Emergencies may be caused by natural, technological or human events and can range from minor service disruptions to mass casualty incidents.

During all emergencies, WMATA's first priority remains the same, preserve life safety.

When an emergency results in the need for medical assistance or, in certain cases of fire alarms, WMATA relies on jurisdictional Fire and EMS Departments within the District, Maryland and Virginia (DMV) to respond.

The Fire and EMS Departments are the region's trained experts in assessing fire or hazmat events, providing medical assistance, and performing extraction, recovery, and triage tasks at the incident scene.

During minor emergencies without injuries or critical safety issues to passengers and employees, WMATA works with its depth of internal resources to resolve the incident to maintain safe and normal operations.

It is important to note that WMATA, like any transit agency, effectively handles minor incidents or delays that occur in a transit system on a routine basis (such as a bus being taken out of service or a mechanical malfunction on a train).

However, there are special events and incidents that can create a significant impact to transit operations and may require the need for external resources.

In the event of severe weather, major emergencies, natural disasters and other larger scale incidents, WMATA has an Emergency Operations Center (EOC) designed for effective emergency management.

The EOC includes information technology and communications tools for coordinating resources and managing the emergency from Metro's perspective.

The management of the EOC works in concert with the Emergency Operations Plan (EOP).

The Emergency Operations Plan (EOP) guides OEM$_M$'s preparedness planning process. The EOP conforms to the basic plan set forth in the Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide (CPG) 101: Developing and Maintaining State, Territorial, Tribal, and Local Government Emergency Plans. The EOP also integrates the National Response Framework (NRF), the National Incident Management System (NIMS) and incorporates the principals of the Incident Command System (ICS).

The EOP outlines the activities and responsibilities for departments, offices and divisions during an incident. The EOP provides the legal basis, purpose, situation, assumptions, administration, logistics, planning, and operational activities that govern the Metro incident management, emergency response and recovery operations.

Furthermore, the EOP contains subsequent plans, or support annexes, that address contingency or hazardous situations that are maintained by OEM$_M$.

Emergency preparedness includes: providing emergency management training to WMATA employees and first responders, revising emergency plans, ensuring policies and procedures work in concert with standard emergency management practices, frequent public outreach events, presentations to transit and first response partners, equipment testing and maintenance and community involvement.

Planning and community involvement are primary ways in which WMATA fosters partnerships with regional first responders which strengthens WMATA emergency management practices.

WMATA coordinates its emergency planning efforts with the agencies/groups described below.

11.1.1 Metropolitan Washington Council of Governments

The Metropolitan Washington Council of Governments (MWCOG) was formed in 1957, by elected officials, from the major cities and counties in the National Capital Region (NCR). These officials recognized the need to develop a region-wide consensus to solve major problems.

Today, MWCOG is the only metropolitan-wide governmental organization concerned with all aspects of metropolitan activity in the NCR.

MWCOG is a forum in which WMATA can coordinate with regional partners and voice issues, concerns, or solutions for the region.

MWCOG works toward solutions to such regional problems as crime, traffic congestion, fire, medical emergencies, natural and human-generated disasters, inadequate housing, air pollution, and inadequate commercial and employment opportunities.

Many of these activities involve WMATA, especially in the areas of fire and life safety.

WMATA emergency management personnel regularly participate in MWCOG committees/subcommittees including the MWCOG RESF-4 Fire Chief's Committee, Passenger Rail Safety Subcommittee, Heavy Rail Safety Subcommittee, the RESF-1 Transportation Committee, RESF-5 Emergency Managers Committee, and the Critical Infrastructure Protection Working Group.

Due to MWCOG coordination, WMATA is involved in regional training exercises. Additionally, WMATA contributed to the revision of the Metrorail Transit – Fire/Rescue Emergency Procedures Policy Agreement approved by all jurisdictional Fire Chief's and WMATA's GM/CEO in June 2015.

11.1.2 Passenger Rail Safety Subcommittee, Heavy Rail Safety Subcommittee

The Passenger Rail Safety Subcommittee is comprised of fire officials from the jurisdictions, MWCOG staff, and an OEM_M representative.

The Heavy Rail Safety Subcommittee includes representatives from OEM_M, MWCOG, AMTRAK, CSX, MARC and VRE.

These subcommittees provide means for fire/rescue departments and WMATA to work together on Metro-related fire emergency equipment, procedures and emergency preparedness.

The subcommittees also advise the fire chiefs on fire safety issues that arise within the rail and bus systems.

WMATA recognizes the subcommittees' role in direct support to WMATA in the area of fire protection, life safety and emergency response.

The major functions of the subcommittees are to:

- Provide liaison among personnel from fire/rescue departments and the staff of WMATA;
- Increase the efficiency of WMATA related fire/rescue services operational programs;
- Develop, update and maintain policies and procedures dealing with WMATA fire protection and life safety;
- Provide technical assistance and expertise in the development of equipment and systems for fire protection and rescue operations; and,

- Provide liaison for fire service training programs and provide technical assistance and expertise in development of training for response to WMATA emergencies.

The subcommittees are informed prior to any planned change in WMATA configuration that could adversely affect the safety of fire/rescue personnel or require substantial change in procedures for emergency response.

11.1.3 RESF-1 Transportation Committee

The Emergency Management Coordinator of Planning and Technical Services represents the Authority on the MWCOG RESF-1 Transportation Committee.

The RESF-1 Committee plans for and addresses transportation's role regarding emergency response, coordination, and recovery during and after a declared emergency or other major event.

The committee was established to provide a forum for regional transportation officials to exchange information and discuss the emergency response, coordination, and recovery requirements of transportation as well as, provide a voice for transportation in the larger NCR Homeland Security Program.

The committee serves as an entity in furthering emergency transportation planning in the NCR and in promoting effective, open communication between transportation stakeholders. RESF-1 also provides input into the planning of cross-functional issues such as evacuation, where transportation plays a supporting role.

11.1.4 RESF-4 Fire Chiefs Committee

The Manager of Operations represents Emergency Management on the MWCOG RESF-4 Fire Chiefs Committee.

The committee is comprised of officials from local, state, federal and non-profit organizations within the NCR.

The Committee meets on a monthly basis to address issues of regional importance regarding fire and rescue policies and practices in the NCR.

The Fire Chiefs Committee advises the Emergency Preparedness Council (EPC), the Homeland Security Executive Committee (HSEC) and the Human Services and Public Safety Policy Subcommittee (HSPSPC) on regional issues related to the fire and rescue service.

The Fire Chiefs Committee oversees a number of regional technical subcommittees specific to hazardous materials response, technical rescue, public safety communications, emergency medical services, rail safety, firefighter health and safety, life safety, technology, training and bomb squads.

Each subcommittee consists of individuals with specialized expertise and skills related to the particular topic, and, they work and report on critical issues related to these matters.

11.1.5 RESF-5 Emergency Managers Committee

The Director of Emergency Management represents the Authority on the MWCOG RESF-5 Emergency Managers Committee.
The committee is comprised of officials from local, state, federal and non-profit organizations within the NCR.

The Emergency Managers Committee advises the Emergency Preparedness Council (EPC), the Homeland Security Executive Committee (HSEC) and the Human Services and Public Safety Policy Subcommittee (HSPSPC) on regional emergency management issues.

The Emergency Managers Committee oversees a number of regional core programs specific to regional planning, training and exercise, NIMS compliance, emergency notification and situational awareness.

11.1.6 Emergency Preparedness Council (EPC)

The Director of Emergency Management represents the Authority on the MWCOG EPC.

The National Capital Regional Emergency Preparedness Council (NCREPC) is an advisory body that reports to the MWCOG Board of Directors.

The EPC makes policy recommendations to the MWCOG Board through the Public Safety Policy Committee as well as procedural or other recommendations to the COG Board or, through the COG Board, to various regional agencies with emergency preparedness responsibilities or operational response authority.

The EPC oversees and implements:

- The Regional Emergency Coordination Plan (RECP);
- Coordinates activities of the various Regional Emergency Support Function (RESF) Working Groups as they develop specific procedures and relationships;
- Oversees the development of annexes and establishes such additional annexes as may be desirable; and
- Develops training or tests of various components of regional emergency preparedness in conjunction with MWCOG's Chief Administrative Officers Committee (CAO).

11.2 Metrorail Transit Fire/Rescue Emergency Procedures Policy Agreement

The Metrorail Transit Fire/Rescue Emergency Procedures Policy Agreement 2015 is a body of procedures developed by the regional Fire Chiefs of the NCR along with WMATA.

These procedures outline the concepts used in emergency operations, to ensure the safety of customers, WMATA employees and fire/rescue personnel during emergencies involving the Metrorail system.

These procedures provide for the coordination and performance of specific duties to mitigate rail emergencies in the Metrorail system.

The procedures are not intended to serve as the only set of governing procedures for WMATA or any jurisdictional fire service.

The purpose is to provide a foundation on which specific and related operational procedures may be developed and implemented by WMATA and each responding fire/rescue service agency. As noted in section 11.1.1, this agreement was revised and re-issued in June 2015.

(Copies of the aforementioned agreements are available from MTPD/OEM$_M$)

11.3 Coordinated Schedule

All OEM$_M$ staff coordinates daily activities using a master calendar (Google) available from any internet connection.

The calendar includes schedules for, WMATA departmental emergency response training, external agency emergency response training, exercises, drills, meetings and OEM$_M$ staff leave.

The calendar is maintained by all OEM$_M$ staff, who may access and input training as it is requested by jurisdictional partners or other Metro departments.

OEM$_M$ participates in a daily conference call to review all scheduled activities on the coordinated calendar.

This daily call provides an opportunity for OEM$_M$ to further coordinate and resolve any scheduling issues.

11.4 Coordination with Regional Emergency Management Organizations

OEM_M works closely with local, state, regional and federal Emergency Operations Centers to ensure an effective level of preparedness and response to Metrorail, Metrobus, and MetroAccess, regional emergencies and special events.

OEM_M personnel are assigned to the District of Columbia Emergency Operations Center during emergencies and major events when found necessary and when staff is available.

OEM_M liaises with emergency management personnel concerning WMATA bus, paratransit and rail operations.

OEM_M will serve as the WMATA liaison between key agencies responsible for regional evacuation and coordination within the DMV.

11.5 Coordination with Rail Operations Control Center (ROCC) Fire Department Liaison

OEM_M works closely with the jurisdictional fire department representative assigned, (liaison), to the Rail Operations Control Center (ROCC) 24 hours a day.

The newly created position is the result of ongoing discussions between WMATA and the region's fire chiefs.

In addition to coordinating emergency response, the fire official also develops policy recommendations and provides supplemental emergency training for rail controllers.

Launched on July 1, 2015, this position is part of an agreement with the MWCOG Fire Chiefs Committee.

11.6 Emergency Plans

OEM_M is responsible for the development and management of emergency plans including the Emergency Operations Plan (EOP), Support Annexes and the Continuity of Operations Plan (COOP).

11.7 Emergency Operations Plan

The EOP outlines the established processes for managing large-scale incidents/emergencies and special events.

The EOP is comprised of three primary sections; the Base Plan, the Department Preparedness Functions, and the Support Annexes, which are other emergency preparedness plans.

The Department Preparedness Functions are a hybrid of Emergency Support Functions (ESF) and department roles and responsibilities.

The Department Preparedness Function outlines each department's purpose and scope, operating policies, concept of operations, and responsibilities before, during and after an emergency incident/event.

At a minimum, the EOP and Support Annexes are reviewed on an annual basis and revised with new signatures every two years.

11.8 Continuity of Operations Plans

The Continuity of Operations (COOP) Plan provides strategic guidelines necessary for enhancing WMATA's ability to continue or rapidly resume essential transportation services regardless of an emergency, incident, threat, or infrastructure disruption.

The COOP Plan details mission, objectives, activation and coordination concepts.

An annex, to the COOP, has been developed for each department describing roles and responsibilities, Essential Functions (EFs), delegation of authority, order of succession, communications, essential records and continuity/back-up facilities.

Each COOP plan is exercised annually.

11.9 Emergency Procedures

Bus and rail emergencies, which endanger life, health, property, or revenue service, require response in accordance with WMATA rulebooks.

Metrorail emergency response procedures are grouped together in the Metrorail Safety Rules and Procedures Handbook (MSRPH).

The MSRPH is distributed to all employees who are assigned to work on the Metrorail system.

The MSRPH is scheduled for revision and re-publication every two years.

Modifications to existing rules and SOPs, or new rules and SOPs can be developed, distributed for review, concurrence and approval via the Special Order process.

The new or modified rule or SOP is incorporated into the MSRPH at the next revision and republication.

Bus emergency response procedures are issued in addition to the Bus Standard Operating Procedures.

11.10 Emergency Training

OEM_M manages and maintains the Emergency Response Training Facility (ERTF) located at CTF, Landover Maryland.

Annually, WMATA trains over 5,000 local and state public safety personnel, federal law enforcement officers, and military counter-terrorism personnel.

The CTF facility is available to all WMATA departments and external agencies for emergency response training, WMATA familiarization and other specialized training.

The group requesting training and use of the ERTF, works with OEM_M staff to perform a needs assessment and develop a custom training session, exercise or drill.

OEM_M provides emergency preparedness, facility and equipment familiarization training for employees and local, state, regional and federal emergency first responders.

ERTF training includes drills in a mock tunnel in which realistic emergency exercises are conducted with emergency first responders.

Familiarization training is also conducted in the Metrorail and Metrobus facilities and in Metrorail yards and of Metrorail and Metrobus vehicles.

In addition, the Federal Railroad Administration (FRA) collaborated with WMATA to establish the first rail car Roll-Over Simulator in the United States to provide training to first responders for WMATA, MARC, VRE and AMTRAK incidents.

11.11 Emergency Exercises

OEM is involved with many drills and exercises throughout the year.

Exercises and drills are ongoing and a large part of WMATA's preparedness and partnerships with DMV regional first responders.

Currently, full-scale exercises are conducted on a quarterly schedule.

OEM_M utilizes the guidelines provided in the Homeland Security Exercise and Evaluation Program (HSEEP) when coordinating exercises.

A full-scale exercise allows WMATA staff and regional first responders to practice and enhance emergency response and recovery skills based on a WMATA incident or a scenario.

OEM_M takes the lead role in coordinating exercises for WMATA. Available funding is a major factor in determining what type and extent of exercise is conducted.

Occasionally, one or several agencies will approach WMATA about hosting an exercise on WMATA infrastructure or at WMATA facilities.

OEM_M works to accommodate such requests, as best as possible, acknowledging the benefit for all involved.

While a partner agency may serve as the exercise lead, WMATA plays a major role in the exercise planning and execution.

The agency leading the drill or exercise is typically responsible for creating an after-action report and sharing it with participants.

OEM_M reviews each after-action report in search of pertinent “strengths” and “opportunities for improvement.”

OEM_M’s identified “opportunities for improvement” will become corrective actions if they have not yet been corrected.

The status of WMATA’s corrective actions are recorded in the Opportunities for Improvement Matrix, which is maintained by OEM_M.

Any safety hazards identified during the emergency exercises are submitted to SAFE for entry into the Hazard Management Process.

12.0 Internal Safety and Security Review (ISSR) Program

12.1 Overview

The Code of Federal Regulations (CFR) Chapter 49, Part 659, requires that WMATA conduct comprehensive and continuous internal safety and security reviews to evaluate the quality and effectiveness of the implementation of the SSPP.

WMATA’s Internal Safety and Security Review Program Manual No. ISSR-M-01 provides guidelines for conducting the Internal Safety and Security Review (ISSR) Process.

The CSO has been delegated specific responsibilities by the GM/CEO for monitoring the effectiveness of the implementation of the SSPP by the responsible departments.

The ISSR process is the primary method used by the CSO to achieve those responsibilities.

The ISSR process provides executive and senior management with a mechanism for verifying and documenting that the key elements of the organization are performing the specified safety and security functions and responsibilities.

The OIG will periodically audit a WMATA function or activity that is an element of the SSPP independently from the ISSR process.

SAFE reviews these reports for applicability to SSPP requirements and as a potential source for hazard identification.

12.2 Scope of Activities

All WMATA safety activities and programs related to the Metrorail system are subject to planned, periodic and regularly scheduled safety and security review throughout the life cycle of the rail transit system.

The safety and security review procedures and checklists evaluate the effectiveness of the implementation of the 21 elements of the SSPP and the seven (7) required elements of the SEPP.

Metro's Department of Bus Services participates in the voluntary Bus System Safety Management Program administered through the American Public Transportation Association (APTA).

The organizational units and functions, including SAFE, that are subject to the ISSR process are identified in the Safety Responsibilities and Activities Matrix in SSPP exhibit 5-1, and are also displayed in the aforementioned ISSR Manual, maintained by the CSO.

12.3 Internal Safety and Security Review Process

WMATA will perform comprehensive and continuous internal safety and security reviews of its rail operations and those of appropriate WMATA contractors for compliance with the WMATA SSPP in accordance with the ISSR Program and Procedures Manual.

12.3.1 Integrity of the Safety and Security Review Process

SAFE manages the ISSR process. To maintain the independence and integrity of the ISSR process the CSO will work in cooperation with the Chief, MTPD.

MTPD will provide auditing per this procedure of the implementation of those elements for which SAFE is responsible; conversely, SAFE will perform ISSR audits of the areas for which MTPD has implementation responsibility.

Historically, the OIG conducts audits of certain programs for which SAFE has responsibility for implementing including environmental management and hazard communication.

The CSO may also retain the services of a qualified consultant to perform any or all of the duties prescribed herein under their direction and management.

The CSO may also wish to provide expertise with contracted safety specialists with technical knowledge in particular areas for the enhancement of the safety and security audit team.

12.3.2 Cycle/Schedule

WMATA will perform comprehensive and ongoing internal safety and security review of its rail operations and those of appropriate WMATA contractors, for compliance with the WMATA SSPP, in accordance with the ISSR Manual, at least once every three years.

Over a three-year period, all twenty-one (21) elements of the SSPP must be reviewed at least once.

The three-year schedule showing the schedule for each department or contractor safety and security review must be reviewed and updated as necessary by October 1 of each year.

A copy of the schedule must be given to each department, contractor and the FTA to be reviewed.

The internal safety and security review schedule (with any updates) is also included as an attachment to the Annual Internal Safety Review Report submitted to the FTA prior to February 1 of each year.

Safety and security reviews will be scheduled by the SAFE lead safety and security auditor, with the department to be audited, at least 30 days in advance of the mutually acceptable date.

The lead safety and security reviewer will notify the CSO of the date(s) of the audit, and provide supporting documentation, including document request and locations of the audit.

The lead safety and security auditor also notifies the FTA at this time.

NOTE: No Bus internal or external audits are addressed in this document.

12.3.3 Checklists and Procedures

Each internal safety and security review will be conducted in accordance with a set of safety and security review checklists prepared by the safety and security review team and lead safety and security reviewer before the on-site safety and security review is begun.

These safety and security review checklists are prepared with the assistance of documentation provided by the department to be reviewed, depending upon availability of such documentation.

It is incumbent on all departments to formally document all required plans, programs, processes, protocols, methodologies and procedures in order that the documentation can be reviewed for this critical requirement of the ISSR process and for compliance with the SSPP.

The checklists will also be developed in accordance with the principles of system safety, internal system safety and security reviewing and the SSPP.

12.3.4 Safety and Security Review Reporting

The safety and security review team must prepare an internal safety and security review report following the completion of the on-site safety and security review.

The internal safety and security review report will include:

1) A narrative describing the safety and security review process, activities, events and participants;
2) Safety and security review findings and recommendations;
3) Proposed corrective action plans (CAPs)—developed in coordination with the reviewed department—for identified deficiencies and areas of non-compliance; and
4) The completed safety and security review checklists.

The internal safety and security review report is submitted to the FTA for its review and comment.

The reviewed department or contractor has the ultimate responsibility for developing, approving and implementing an appropriate Corrective Action Plan (CAP) meeting the approval of the GM/CEO and the CSO.

When corrective action is required, participation by SAFE or the safety and security review team might be needed to examine the scope and extent of the underlying causes that led to the safety and security review findings and recommendations.

The CSO will ensure that designated SAFE personnel monitor and follow-up on the implementation of the CAPs, and assist the department in tracking the CAPs to closure.

The ISSR process should be a constructive and collaborative process. In the event of disagreements with safety and security review report findings or recommendations, the lead safety and security reviewer will attempt to resolve the issues.

In the event this is not successful, the CSO will work with the responsible executive to resolve outstanding issues.

When necessary, issues or disagreements will be elevated to the ESC for final determination.

12.3.5 Annual Safety and Security Review Reporting

By February 1 of each year, WMATA will submit an annual safety and security review report to FTA that documents the internal safety and security reviews conducted in the previous year in accordance with FWSO Oversight Standards.

The WMATA annual report will include:

- A summary of the internal safety and security reviews conducted for the previous year;
- The completed internal safety and security review checklists;
- Findings and recommendations of the internal safety and security review;
- Suggested corrective actions to address the findings in accordance with CAP requirements;
- A progress status of WMATA's three-year schedule and potential obstacles with meeting the schedule;
- The status of all findings, recommendations, and corrective actions resulting from the reviews conducted that year; and
- Any challenges or issues experienced by SAFE or MTPD in implementing the Internal Safety and Security Review Program.

12.3.6 Safety and Security Review Completeness

The internal safety and security review process is intended to be complete and comprehensive. SAFE is responsible for ensuring that all 21 elements of the SSPP are reviewed in each three-year cycle and each element is comprehensively evaluated.

In addition to WMATA's approved SSPP, the safety and security review team must use standard operating procedures (SOPs), other pertinent documents and principles of system safety and security as a basis for preparing a set of safety and security review checklists before beginning the on-site safety and security review.

Some typical examples of these procedures and other pertinent documents reviewed during the safety and security reviews include:

- System operating rulebook (Metrorail Safety Rules and Procedures Handbook [MSRPH]), Special Orders, Permanent Orders, Temporary Orders, written instructions, bulletins and procedures, MTPD General Orders and Standard Operating Procedures;
- Safety-related Operations Administrative Procedures (OAPs);
- Manufacturers' and WMATA maintenance and operations manuals and procedures for vehicles, track and signals;
- Training curricula and materials;
- WMATA and departmental standard and emergency operating procedures (SOPs/EOPs);

- System design criteria and project engineering procedures for extensions and modifications;
- Records and documentation of safety related events, tasks, processes, procedures, activities and policies;
- Previous internal and external safety and security review reports;
- Corrective Action Plans;
- NTSB accident investigation reports, other agency peer review reports; and
- All other documentation needed to verify safety and security related activities, programs and policies.

Additional detailed standard procedures relevant to this section are included in the ISSR Manual, maintained by the CSO.

13.0 Rules and Procedures Compliance and Review

13.1 Overview

Standard Operating Procedures, Operating Rules, and General Safety Rules, which are incorporated into the MSRPH, BSEH, the MetroAccess Operator Handbook, the Safety Rules and Procedures and the RWPM provide for safe operations and maintenance of the Metrorail, Metrobus and MetroAccess systems. WMATA Policy Instruction P/I 1.15/0, Rule Book Management, establishes procedures for development, revision, maintenance, management, and enforcement of rulebooks.

The ESC provides oversight and executive management and reviews this process to ensure consistency and the integrity of the rules and procedures modification process.

The Chief Operating Officer (COO) is the owner of the MSRPH and the RWPM and is responsible for ensuring that the documents are reviewed and revised as needed/required every two years. Special Orders, Permanent Orders or Temporary Orders are issued as interim measures until permanent changes are made in the MSRPH and RWPM.

In order to ensure the appropriate level of executive management oversight, the MSRPH, RWPM, BSEH, and Special Orders, Permanent Orders, Temporary Orders and Change Orders that modify or are intended to permanently establish rules and procedures are issued under the authority and signature of the GM/CEO.

13.2 Review of Rules and Procedures

The effectiveness of the MSRPH is evaluated via spot audits by SAFE and as part of the incident and accident investigation process. SAFE's Hazard Management Program includes the review of rules and procedures during the hazard analysis process.

Supervisors and managers evaluate compliance with and the adequacy of the MSRPH and make recommendations for modifications or additions as part of their review of Incident Reports filed by employees.

SAFE also reviews the Incident Reports and recommends corrective action or modification of rules and procedures as required. SAFE's accident and incident investigations include a review of applicable rules and procedures as part of the investigation analysis.

Adherence to the MSRPH is determined in the conclusions section of accident and incident investigation reports and recommendations include the need for MSRPH, RWPM, and BSEH modification or the need for retraining of employees on the MSRPH, RWPM and BSEH.

P/I No. 1.15/0, Rule Book Management, section 4.04, requires that Executive Managers/Directors/General Superintendents ensure risk assessment is conducted and used to prioritize the development training and compliance of rules and procedures and to identify Cardinal Rules. P/I No. 1.15/0, section 4.07 requires that SAFE provide guidance to the offices performing the risk assessment of rules and procedures. P/I No. 1.15/0, section 5.01, "Initiating Rules and Procedures," provide that Local Safety Committees can make recommendations for changes to a rulebook based on:

- Employee suggestions;
- Local investigations;
- Safety conversations; and
- Hazard analysis.

In addition, P/I No. 1.15/0, section 5.02, "Rule Book Change Evaluation," requires that the Local Safety Committee make a determination if change will improve safety or operations, and whether or not the change is urgent using the Risk Assessment Matrix (P/I No. 1.15/0, appendix D).

13.3 Process for Ensuring Rules Compliance

Operations employees are tested on their knowledge of the MSRPH and RWPM during initial training and refresher training.

SAFE (OSA) also conducts spot audits of MSRPH compliance of RSTO and RTRA employees including ROCC, BSEH compliance of BUS employees and MetroAccess Operator Handbook compliance of MACS contractors.

SAFE (OSA) performs periodic Internal Safety and Security Reviews (ISSR) of ROCC personnel to their departmental Procedures Manual, Internal Processes, Procedures, Checklists, Training and other relevant documentation.

Maintenance groups have daily discussion of rules and procedures during "Tool Box" meetings. Applicable rules and procedures are also discussed when work is assigned.

WMATA Policy Instruction P/I 1.15/0, Rule Book Management, section 5.08, "Compliance," requires all offices to develop a quality control program to ensure compliance to rules and procedures, including the RWPM. The quality control program must include the following elements:

- Rule Prioritization – evaluate which activities pose greatest risk of injury, service disruption or customer dissatisfaction (review appendix D of P/I 1.15/0 to help prioritize).
- Roles and Responsibilities – identify who must be responsible for administering the elements of the quality control program.
- Compliance Checks – identify the activities and associated rules to be monitored for compliance based on WMATA Policy Instruction P/I 1.15/0, Rule Book Management, section 5.08 (a) and
    - Determine the frequency of compliance monitoring with increased frequency for Cardinal Rules and dangerous activities;
    - Establish the process/guidelines on how to conduct the compliance checks;
    - Document the results;
    - Monitor observations of employees performing their duties;
    - Monitor activities during the same time work is conducted, to include nights, weekends and holidays (locations and times should be varied); and
    - Conduct monitoring safely, without putting evaluators, employees, contractors, customers, or equipment at risk.

13.4 Compliance Techniques: Operations and Maintenance Personnel

Refresher RWPM and MSRPH safety training is required of RSTO personnel on an annual basis. All new RSTO and COO employees are provided RWP safety training as part of the New Employee Orientation Program. Employees, who fail either the examination or practical, are reassigned to duties that do not require work on the ROW, until the employee attains a passing score on the examination and/or practical, respectively.

RSTO's Samsung Galaxy Smartphone application is used to perform ride checks of train operators by RSTO field supervisors. Each supervisor conducts ride checks every week.

This data is incorporated into the SMS_M, which allows RSTO supervisors to notify SAFE of hazards and allows SAFE to review the data for purposes of hazard identification. Identified hazards are then entered into the Hazard Management Matrix by SAFE personnel.

SAFE can access the General Orders and Track Rights System (GOTRS) to review planned work on the rail system.

Reports can be generated from GOTRS by SAFE to evaluate work sites and review how work sites were established by TRST, SMNT and contractor forces.

Because ROCC enters daily controller notes and actions directly into GOTRS, SAFE can generate reports to evaluate compliance with SOPs and work rules by those crews performing work in the rail system.

In this manner, SAFE can identify hazards, rules, SOP and RWPM violations for follow-up action and for entry into the Hazard Management Matrix.

System-wide issues regarding MSRPH and RWPM compliance are entered onto the SMS_M Hazard Management Module for evaluation, resolution and tracking to closure.

SAFE performs inspections and audits of compliance with the MSRPH, RWPM and BSEH. Special emphasis campaigns are performed to monitor compliance and enforcement with RWPM safety rules and procedures.

13.5 Compliance Techniques: Supervisory Personnel

Supervisors are required to ensure that employees perform their assigned duties in compliance with the MSRPH, RWPM, and BSEH, OAPs and other procedures and instructions. Example – ROCC Procedures Manual, Sections 5 and 6.

Disciplinary procedures consistent with union contracts are used to enforce compliance with established rules and procedures.

13.6 Documentation of Rule Compliance

WMATA Policy Instruction P/I 1.15/0, Rule Book Management, section 5.08(e), “Record Keeping,” requires that the departments maintain accurate compliance records. Records must be kept both on observations and on action taken to correct observed deficiencies:

- Establish a tracking system (i.e.; forms, electronic applications) to document and control compliance checks and corrective action activity; The tracking system must provide status of the activity (e.g.; open, closed, in-progress);
- Observers must be trained in the method of collection and proper documentation of the observation; and
- Establish retention time for each record and cite retention requirements in the program.

Supervisors maintain the required documentation of enforcement actions consistent with WMATA disciplinary procedures and union contracts. P/I No. 1.15/0, section 5.08 (d), “Corrective Action to Address Non-compliance,” establishes requirements for compliance and enforcement action.

13.7 Monthly Submission of Rule Compliance Data to FTA

Please see the Safety Event Notification section, pages 44-45, of the FWSO Oversight & Surveillance Plan for the requirements for this section.

14.0 Facilities and Equipment Inspection

14.1 Overview

Safety Inspections of WMATA's facilities are made by maintenance technicians, supervisors, safety officers and managers, to detect and correct unsafe conditions and deteriorating equipment conditions to ensure the safe passage of trains, safety for employees, public safety (including pedestrians and bicyclists), to minimize unnecessary disruptions to revenue service and to ensure compliance with regulations.

14.2 Facilities and Equipment Subject to Inspection

Inspection requirements are based upon standards and regulations of the following agencies:

- US; Department of Labor, Occupational Safety and Health Administration (OSHA);
- District of Columbia, Occupational Safety and Health Division (OSH);
- Maryland, Division of Labor and Industry, Occupational Safety and Health Service;
- Virginia, Labor and Industry Department, Occupational Safety and Health Division (VOSH)
- US; Department of Transportation, Federal Railroad Administration (FRA) Regulations and Motor Carrier Safety Regulations (MCSR); and
- Local jurisdictions served by WMATA (building and fire codes.)

In addition, where the jurisdictions have adopted federal safety laws and regulations, the following national consensus standards may be applicable to WMATA facilities:

- National Electrical Code;
- Underwriters Laboratories Standards;
- National Fire Protection Association Standards;
- American National Standards Institute (ANSI) Standards;
- American Conference of Governmental Industrial Hygienists (ACGIH) Standards;
- Equipment manufacturers' operational standards; and
- Recommended standards and guidelines of the National Institute for Occupational Safety and Health (NIOSA).

Examples of inspected maintenance and support facilities includes, but are not limited to:

- MetroAccess facilities;
- Train control rooms;
- Communications rooms;
- Power substations;
- Tiebreaker stations; and
- Rail stations.

Examples of equipment inspected includes, but are not limited to:

- Systems equipment;

- Electrical equipment;
- Communication equipment;
- Mechanical equipment;
- Safety equipment; and
- Escalators and Elevators.

Vehicles inspected include, but are not limited to:

- Rail vehicles;
- Track maintenance vehicles;
- Buses; and
- Non-revenue (service) vehicles.

Infrastructure subject to inspection includes, but are not limited to:

- Track;
- Aerial structures;
- Bridges; and
- Tunnels.

14.3 Regular Inspection and Testing

The following are examples of the types of inspections and testing performed on many of the listed facilities and equipment in section 14.2:

- Track inspections of the mainline rail system are performed by trackwalkers, twice each week, with no more than two-day intervals between inspections.

- A riding track inspection by maintenance managers is conducted on a monthly basis, per OAP 208.1, Track Maintenance Management, Maintenance of Way, Track Maintenance Management; Maintenance of Way. Discrepancies and anomalies are recorded and scheduled for repair by the track repair group.

- If serious deficiencies are identified, immediate repairs are initiated or speed reductions/restrictions are imposed, until repairs can be made.

- Daily Safety Tests (DST) are performed by CMNT technicians on each rail car. Any identified deficiencies are corrected prior to the car being released for revenue service.

- Train Control Rooms are visually inspected every day to check the condition of the Automatic Train Control (ATC) equipment, and to detect conditions that are not normally monitored by monitoring systems, i.e., environmental conditions, presence of water, structural integrity, and housekeeping.

- Interlocking rail inspections are performed monthly to verify the proper condition of ATC wayside interlocking equipment and associated track equipment.

- Communication rooms, equipment and infrastructure are regularly inspected and tested in accordance with established and approved processes and procedures. Equipment requiring calibration, such as radio's, are maintained in a calibration matrix and are recalled approx. 30 day prior to calibration due date.

- Rail stations are inspected by the station manager in accordance with Metrorail Station Standard Operations Procedure # 1. Deficiencies are reported to OCC and MOC and entered in the Maintenance Log.

- Escalators and Elevators have regularly scheduled preventative maintenance performed as well as recommended hardware updates.

- Traction Power Maintenance performs scheduled inspection and maintenance on traction power and AC facilities, power systems, equipment and vehicles in accordance with established and approved processes and procedures.

- Infrastructure inspection are performed by CENI in accordance with established and approved processes and procedures.

- Buses are inspected on a daily basis, as they proceed through the service lane, to identify defective safety equipment.

- Preventive Maintenance Inspections (PMI) are performed on a scheduled basis for all buses.

- Bus operators perform pre-trip and post-trip inspections and submit Shop Cards to report defective safety equipment at the end of their shifts. Buses with defective safety equipment are not returned to service until such items are repaired.

- Bus stops are inspected annually by the Bus Stop Information Program to ensure accessibility for pedestrians and that bus stop information cases are readable from the sidewalk or roadside.

14.4 Checklists

Checklists are developed from procedures manuals, standards and manufacturers' manuals and are used to perform and document the inspections described above.

14.5 Coordination with Hazard Management Process

Most deficiencies identified during the inspections referenced above are repaired prior to the equipment being placed in revenue service; or, interim repairs are made to mitigate the hazard until permanent repairs are made.

SAFE is notified of deficiencies by the ROCC, MOC, BOCC or the responsible office.

Deficiencies that are determined to be hazards with system-wide implications or that require design and long-term resolution are entered into and managed by the Hazard Management Process. Resolutions are then tracked to closure by SAFE.

15.0 Maintenance Audits/Inspections

15.1 Systems and Facilities Subject to Maintenance Program

SSPP section 3.3 describes the major equipment and facilities of the Metrorail system along with the organization responsible for performing facility and equipment maintenance and maintenance audits and inspections.

Each responsible organization maintains its maintenance and inspection manuals for each facility and all equipment. Preventive maintenance inspections (PMIs) are performed in accordance with manufacturers' requirements, utilizing checklists, as applicable or defined by WMATA Engineering.

QICO conducts periodic maintenance audits of rail facilities, infrastructure equipment, including but not limited to, ATCS, Elevators and Escalators, Safety Equipment, Communication Equipment, CENI and Power.

OSA conducts periodic maintenance audits of BUS facilities and equipment, utilizing checklists, in accordance with the OSA Quality Management System Manual (OSA- 1). PMI schedules and the resultant data are maintained and tracked in the MAXIMO database for all facilities and equipment.

QICO tracks and analyzes data to monitor trends to ensure quality and reliability of equipment and facilities.

Reports are prepared and provided to COO department heads to identify the need for improvements in maintenance quality and reliability processes and practices.

The major safety related systems that require regular maintenance inspections along with the responsible organization are described below.

TRST preventive maintenance inspections are made in accordance with the WMATA Track Maintenance Standards, Maintenance and Inspection Manual WMATA – 1000.

These track inspections include:

- All mainline tracks, in an assigned section will be inspection on foot, two times each week with an interval of at least one calendar day; Inspections can be suspended in the event of weather that causes unsafe, slippery or low visibility conditions; A riding inspection can be performed of the affected segment with supervisory authorization;

- Secondary Tracks will be inspected once per month;
- Gauge Measurement of the entire system quarterly;
- Geometry car performing a quarterly inspection;
- Inspections of curves and spirals every four (4) months to assess super elevation and gauge either by walking or by the Track Geometry Vehicle;
- Inspection for internal defects in rail must be made once a year with equipment capable of detecting defects in the rail proper as well as within the joint bar area; Currently these inspections are performed five (5) times per year;
- Dynamically loaded structures such as aerial structures, bridges, and parking garages are inspected annually; and
- Static structures such as tunnels, stations, and retaining walls are inspected biennially.

Rapid transit car preventive maintenance inspections are made by CMNT in accordance with the following:

- Periodic preventative maintenance inspections in accordance with manufacturers' recommendations; PMI procedures in some cases are modified from OEM recommendations by CENV;
- Periodic inspections specified by CENV and QICO to ensure that all components/services meet or exceed manufacturers' recommendations;
- Walk-around inspection checklist; and
- Visual inspections by the operator.

ATC preventative maintenance inspections are made by ATC technicians, supervisors and managers, in compliance with regulations, manufacturer guidelines and established maintenance standards.

All discrepancies found during these inspections are reported, documented and corrected as soon as reasonably possible.

These inspections/audits include:

- Twice-daily evaluation of mainline track circuits to proactively search for loss of shunt defects, utilizing the ATC Loss of Shunt Tool (software).

  In the event a loss of shunt condition is identified, immediate action must be taken to ensure that train operators approaching the defect area operate in manual and reduce train speed to no greater than braking distance within line of sight.

  SAFE and the Assistant Chief Engineer, Rail, ATC are notified by ROCC of each such loss of shunt condition as soon as train operations are protected.

  SAFE, SMNT and ATCS track loss of shunt defects through the Hazard Management Process.

- Audio Frequency and Interlocking AC Track Circuit Shunt Tests and Track Circuit Detection Signal Tests are performed quarterly. Track circuit adjustment is performed after corrective maintenance or disarrangement.

- Interlocking's are inspected monthly and switch obstruction tests are performed monthly to ensure reliability and to provide safe passage for revenue trains and work vehicles.

- Vital Safety Circuits receive a locking test once a year, in accordance with FRA regulations, to verify their integrity. This includes approach, time, route, traffic and switch locking.

- Vital Relay Testing is performed every four years, per FRA regulations, to verify the integrity of all vital relays used in the ATC system.
- Intrusion Detection and Warning (IDW) system tests and inspections are performed annually to ensure reliability of the IDW system.

FWSO Inspections – FWSO Inspections will be performed in accordance with the FWSO Oversight & Surveillance Plan, pages 46-48, FWSO Inspection section.

This section identifies the types of inspections and observations that FWSO will conduct at WMATA operations and maintenance and facilities to assess compliance with Federal rules or standards and all relevant WMATA standards, rules, and procedures. FWSO will also refer to national effective practices as criteria for its inspections.

This section also lists the types of inspection that may be performed.
Bus Inspections – Inspection of bus support systems, facilities and equipment are made in accordance with appropriate maintenance manuals and procedures, which conform to the jurisdictional motor vehicle inspection code for the District of Columbia, Maryland and Virginia departments of motor vehicles.

In addition, a "B" Inspection, which includes safety related equipment, is performed on each bus every two weeks. SAFE (OSA) conducts periodic maintenance audits of facilities and equipment, utilizing checklists, in accordance with the OSA Quality Management System Manual (OSA-1).

PMI schedules and the resultant data are maintained and tracked in the MAXIMO database for all facilities and equipment. SAFE (OSA) tracks and analyzes data to monitor trends to ensure quality and reliability of equipment and facilities.

Reports are prepared and provided to BUS department heads to identify the need for improvements in maintenance quality and reliability processes and practices.

15.2 Resolution of Audit/Inspection Findings

Serious hazardous conditions that are identified during the above inspections are immediately corrected, and the conditions are documented in accordance with the responsible organizations' procedures and practices.

In the event a hazard cannot be immediately corrected, it is reported to SAFE and is managed and resolved in accordance with SSPP section 6.0, "Hazard Management Process." SAFE then tracks the resolution to closure.

SAFE has access to audit, inspection and repair information in MAXIMO that allows SAFE to identify trends and possible repetitive events that should be addressed in the Hazard Management Process.

15.3 Checklists

Each organization performing PMI audits and inspections develops and uses checklists based on manufacturers' manuals, applicable procedures, standards and regulations and the MSRPH or BSEH.

16.0 Training and Certification Review/Audit

16.1 Overview

Instruction in safe methods of operation and safety procedures is included in manuals, handbooks, and other documentation developed for the training and certification of operations and maintenance personnel.

Training systems have been developed, by each department (Rail, Bus, SSRV, MTPD, CSCM, HR, CFO, IT and ENG that includes in-house classroom training, on-the-job training and testing.

Each department is responsible for establishing safety-training requirements, in conjunction with SAFE.

SAFE teaches the occupational and environmental safety training at the Safety Training Academy at CTF or at WMATA facilities and maintenance shops.

SAFE has primary responsibility for developing and providing formal corporate safety training courses.

TSMT maintains the central records of safety training for all employees. See section 16.4

SAFE maintains the central records of safety training for all contractors. See section 16.4

OPMS notifies supervisors and employees of needed RWP training.

It is the responsibility of each department head or their designee to develop and maintain a required training matrix for each position and employee within their department and to ensure that the matrix is kept current.

Supervisors and employees are required to review periodically, training records to ensure that the required training and certifications are being completed by employees.

SAFE evaluates and audits (as part of the ISSR) departmental safety training programs and provides technical expertise as necessary.

Identification of protective devices and emergency equipment is included in the training documentation and instruction.

In addition, safety posters, bulletins and notices are used as appropriate to enhance safety awareness during all phases of system operations.

Proficiency demonstrations and certifications are required of all operations and maintenance personnel.

Safety concerns are incorporated in safety briefings given to personnel prior to their working with equipment or in facilities.

Contractors are responsible for ensuring compliance with the most stringent provisions of the applicable occupational safety and health statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision in which the work is being performed, and the U. S. Department of Labor OSH standards.

The contractor must submit a construction safety plan to WMATA's representative for review prior to commencement of work.

The contractor must within five (5) days after receipt of Notice to Proceed (NTP), submit through WMATA's representative to SAFE, a request for the Authority to schedule and conduct the safety instruction at the earliest possible time for all contract personnel who will be engaged in the performance of contract work on or above the Roadway.

The Authority will schedule and conduct RWP training for all contractors' work forces.

Contractor training and certification must be renewed annually.

The contractor must not perform work at the contract site(s) on or above the Roadway, until all personnel of the contract work force have attended the RWP training and have been furnished evidence of completion.

The contractor must follow all applicable MSRPH and RWPM rules and procedures while working in the operating rail system.

For any work within Start-Up limits, all contractors' personnel must receive WMATA Start-Up Lockout/Tagout training prior to commencing the work.

Other training may include, but not be limited to, Confined Space Training. Copies of training documents must be forwarded to SAFE prior to work.

16.2 Employee Safety

Safety training is conducted by SAFE, MTPD, RTRA, RSTO, BUS, COO, TRES, RADS, OPMS, PRMT, IT and CFO.

Each department is responsible for establishing training requirements and assuring that the necessary training is accomplished. The following courses are provided:

- New Employee Orientation

  All new employees must attend mandatory safety training including: depending on the job assignment, either Emergency Response Awareness Training for Non-operating Personnel or Roadway Worker Protection Training (RWP) for operating personnel; Personal Protective Equipment; multiple modules of Hazard Communication; and Blood Borne Pathogen Training. All employees receive training on the System Safety Program Plan, Hazard Management Program and basic Hazard Communication.

- First Aid and CPR Training

  First Aid, CPR and Automatic External Defibrillator (AED) training is provided to station managers and other employees, as required by class specification. MTPD personnel receive such training at the Police Training Academy and refresher training during mandatory in-service retraining. The American Red Cross or other nationally accredited courses and instruction methodologies are used for First Aid, AED and CPR.

- Special Safety Presentations

  Special safety training presentations are made at work locations to instruct employees on methods to prevent traffic, passenger, and employee accidents.

- Hazardous Materials/Hazard Communication Training

  All maintenance and support personnel who are required to use chemicals and hazardous or toxic substances are trained in the safe use of such substances.

  Employees who move to new positions are provided training in the use of any new chemicals that they may be assigned to use by the supervisor.

- Safety Related Operations and Maintenance Training

- Categories of safety related work include, but are not limited to, train operators, bus operators, non-revenue (service) vehicle and equipment operators, maintenance of way employees, rail car maintenance employees, elevator and escalator maintenance employees, supervisors, ROCC and Safety personnel, BMNT employees and police officers. Safety training is embedded in all of the technical and operations training courses provided to these categories of employees.

- Safety training is conducted on Metrorail and Metrobus procedures and rules. Copies of WMATA's standard operating procedures and safety rules are given to all employees who work on the rail and bus system.

- All new train operators are given the Train Operator Training Course, which covers rules, procedures, and actual train operation with an instructor.

  Each new train operator candidate is certified by RSTO with both written and practical testing to validate operational readiness and knowledge of operating and safety rules and procedures.

  Annually, each train operator is given a refresher course on the rules and procedures. All train operators are re-certified every two years with written and practical testing by RTRA, through the Performance Standardization Program.

  Each person who fails the annual examination is given special retraining.

  The preparation, administration, and maintenance of these examinations and related records are the responsibility of the employee's department/office.

  Supervisors perform "ride checks" on train operators to assess knowledge of train operations and the MSRPH.

- All new bus operators are provided the Bus Operator Training Course, which includes traffic regulations, rules, procedures, bus simulator time and hands-on seat time in a bus with an instructor.

  Bus operators must have a commercial driver's license (CDL). Bus operators are provided annual refresher training, which includes time in the bus simulator.

  Supervisors perform "ride checks" on bus operators to assess knowledge of bus operations and the rules and procedures.

- All new MACS contractor operators are provided the Paratransit Operator training course. No CDL is required.

  Annual refresher training is provided, and WMATA contractor supervisors perform "ride checks" and observations of operator performance.

- Safety Rules and Procedures Training

  RSTO, RTRA, COO, OPMS, IT, TRES, MTPD, PRMT, OPMS, TSMT, and BUS personnel are trained to perform in accordance with the safety rules and procedures applicable to their office.

  OPMS provides job familiarization training to technical skills employees, which includes an overview of basic job safety and applicable MSRPH rules.

  All new SMNT, TRST and CMNT Employees receive new hire familiarization training from OPMS which covers, MSRPH, Safety, Maximo (where applicable), and initial craft training.

  All new and existing employees of WMATA who will perform work on the Metrorail system ROW are required to attend an initial RWP safety training class conducted by TSMT that has been approved by SAFE, prior to beginning work.

  An RWP exam is given to the employee, to test their knowledge on the facts of RWP.

  A certification ID badge is issued by TSMT, upon successfully passing the RWP exam.

  RWP Safety Training is conducted by TSMT (for non-Operations personnel) and SAFE (for contractors).

  Successful completion of refresher training is required every two years.

  The rules and procedures for each office are established by the appropriate office and coordinated with SAFE. Violations of Metrorail or Metrobus rules, regulations, and/or procedures may result in disciplinary action (cautions, retraining, reprimand, disqualification, suspensions, or dismissals) in accordance with the rulebooks, policies and the union contract.

- Emergency Preparedness Training

  Front-line employees are provided training on the National Incident Management Systems through FEMA's NIMS-700 online course.

- Joint Supervisor Training

  Personnel from jurisdictional law enforcement, fire departments and transportation departments are provided training in their role to manage traffic and pedestrian flow in the event of a major Metrorail service delay.

- SAFE and/or OEM$_M$ are responsible for the following employee safety training activities:

  - Training adequacy, uniformity and comprehensiveness.

    Training content is monitored and suggestions for improvement are provided to operating offices.

  - New Employee Orientation

    Employee orientation is conducted for all new WMATA employees to inform them of the Authority's current departmental programs and procedures, along with SAFE's program requirements for new WMATA employees.

    SAFE responsibilities include basic MSRPH introduction.

  - Industrial Hygiene Training and Education

    Employees who use or come in contact with chemical, physical or biological hazards receive training in hazard mitigation, industrial hygiene principles and in the care and use of personal protective equipment.

    SAFE, T&OD and HR/OHAW provide training in the proper handling of biologically contaminated materials such as tools, syringes and clothing.

  - WMATA Safety Management Course

    It is strongly recommended that all managers and supervisors attend this five-day course presented by SAFE. It is intended to provide the knowledge of OSH regulations, WMATA safety policies, procedures and practices, to enable managers and supervisors to develop effective safety programs at their facilities and work areas.

  - OSH Required Safety Training

    The following required OSH training courses are identified in the training database for each job classification as required by employee position descriptions and work assignments:

    - Personal Protective Equipment
    - Respiratory Protection
    - Hearing Conservation
    - Hazard Communication
    - Permit Entry Confined Space
    - Confined Space Awareness
    - Powered Industrial Truck
    - Hazardous Waste Operations and Emergency Response
    - First Responder – Operations
    - Environmental Compliance Officer
    - Hazardous Waste Management
    - DOT Hazardous Materials

- Electrical Safety
- Fall Protection
- Aerial Lifts
- Cranes
- Powered Work Platforms
- Fire Extinguisher Training
- Lockout/Tagout
- Other courses as required

o Emergency Preparedness Training

All non-operating employees are provided Emergency Response Awareness Training, as part of New Employee Orientation.

Existing non-operating personnel are also provided this training by their assigned departments.

Operating employees are provided emergency response training, “Warning Signs” developed by the National Transit Institute.

This training is provided by the departments to which employees are assigned.

Bus and rail employees are also provided fire extinguisher training, where they actually extinguish a fire using an extinguisher.

- Non-WMATA Employee RWP Safety Training

All employees of WMATA contractors and others who perform work on the Metrorail system are required by contract to attend a RWP safety training class overseen by SAFE prior to beginning work.

16.3 Contractor Safety

All contractors who perform work on, or interface with the operating system are required by contract to ensure that supervisors and assigned employees attend RWP training.

Each contract also requires compliance with applicable Federal and state OSH regulations.

Contractors must submit to project management all required safety training certifications and documentations of course completion that are pertinent to the work to be performed under the contract.

SAFE conducts RWP training for contractors.

SAFE reviews the certifications and documentation to ensure that the certifications and documentation are valid and that the training meets all current requirements.

SAFE performs regular safety inspections and audits of contractor work sites to review training records and assess contractor safety compliance.

Deficiencies are brought to the attention of the contractors' project managers for corrective action.

16.4 Record Keeping

All RWP training records for employee's safety training are maintained and administered by TSMT.

TSMT will supply to HRTM the results of initial training and recertification RWP testing for their records.

All RWP training records for contractor's safety training are maintained and administered by SAFE.

TSMT utilizes several databases for storing and reporting employee RWP training status.

SAFE utilizes a single database for storing and reporting contractor RWP training status.

If a WMATA supervisor wants to know an employee's RWP training status, they must make a request to the Director of TSMT Training, who will then provide the status information to the supervisor making the request.

If the status of a contractor's RWP training is needed, they must make a request to SAFE, who will then provide the status information.

16.5 Compliance with Training Requirements

Training requirements for each position and employee are included in the training database.

Audits can be performed using the database to review training records of individual employees to determine compliance with training requirements.

Each employee record indicates which courses are required and which have been completed. Periodic notifications are sent to supervisors if required courses are not completed within the required period.

17.0 Configuration Management

17.1 Overview

A Configuration Management Plan is vital to WMATA to ensure, as much as possible, that the configuration of all WMATA property, vehicle, equipment and systems design

elements, operations and maintenance documents, and safety and security documents are accurately and completely documented.

Configuration Management is defined as the effective control of the arrangement and operation of a facility, system, equipment or vehicle to ensure compliance with approved and/or accepted technical requirements and other governing criteria. Control of configuration of facilities, systems, vehicles and equipment begins during development of the final design and extends through construction, start-up, and operations concluding with deactivation of the facility, system, vehicle or equipment.

WMATA Policy/Instruction (P/I) No. 4.10/3, Configuration Control Management establishes authority and responsibility to manage the configuration of all WMATA (Metro) infrastructures: Metrorail facilities and Metrobus facilities.

The Chief Engineer and the Chief of Infrastructure Services (CENI) are responsible for the implementation of this policy.

The configuration of the Metrorail and Metrobus infrastructure is represented in the following documents: As-Built Drawings, Engineering Modification Instructions, In-Service/As-Is Drawings, shop drawings, catalog cuts, and O&M manuals.

The Chief Engineer, Vehicles (CENV) is responsible for configuration control of rail vehicles. The Chief Bus Engineer (BENG) is responsible for the configuration control of the Metrobus fleet with proposed changes to as-built configurations being reviewed, tested, approved or denied by the BENG Bus Change Control Board.

Any changes to an individual sub-system or a fleet/inventory-wide change should be recorded on as-built drawings in a timely and effective manner.

The five (5) basic program elements that comprise the Configuration Management Program are:

1) Program Management;
2) Technical Requirements;
3) Change Control;
4) Document Control; and
5) Audits and Self-Assessments.

CENI implements the five (5) program elements to maintain consistency among design requirements, design configuration, physical configuration and a facility's documentation.

The program elements are integrated throughout the organization both functionally and organizationally.

Program management elements of the Configuration Management Program direct the development and implementation of a Configuration Management Program for WMATA.

The Configuration Management Program requirements flow down into implementing procedures and other engineering documents that provide detailed directions and work instructions.

The plan would initially provide an electronic technical document library of WMATA's major assets that support bus and rail operations.

Examples of the types of documents the library would hold are operation and maintenance manuals, calculations, agreements, specifications, cut sheets, in-service condition drawings, shop drawings, licenses, deeds and plats.

The primary function of the library would be to provide controlled access to the documents and to make sure the latest version of the documents were always available.

The library would maintain at least two (2) sets of documents and possibly three (3) sets for some documents.

The first set would be in native format, the second set would be in the viewing format that is planned to be Adobe Portable Document Format (PDF).

The third set could be some form of XML data.

The majority of users would only use the documents for viewing and only a select few users would be able to make changes to the documents.

The configuration management software would provide a full audit trail of document revisions, approvals and publishing.

WMATA is planning to implement a program to provide configuration control of the technical documents relating to the WMATA Metrorail and Metrobus infrastructure.

A pilot has been established to demonstrate the feasibility of utilizing the Documentum software program for this purpose.

The initial phase was in the systems engineering aspects of the Metro Matters Traction Power Update project.

In addition to providing any WMATA employee web based access to the as-built electrical documents associated with this project, it also provided advanced document search capabilities with the addition of Metadata/attribute information associated with each technical document, plus it established basic file folder structures and user privilege levels.

Additionally, user features are also planned, such as a graphical user interface and an electronic document review and approval process.

The methodologies and business processes developed under OAP 200-06 to direct COO EMIs are, broadly speaking, extensible throughout WMATA. In order to do so, WMATA initiated a Product Life Cycle Management ("PLM") program in 2015. This program will be responsible for:

- Implementing a PLM software tool to track asset design and configuration data from design or purchase of an asset to retirement;
- Working with all WMATA operational and engineering units to document (if necessary), reengineer as appropriate, and implement their processes for configuration management; and
- Assure availability of configuration management and related data to all interested parties in the authority.

This program's charter and schedule were reviewed and approved in the first quarter of 2014. The program's steering committee will include a representative from Safety to assure compliance with the SSPP.

17.2 Process for Change

The Design Control Board (DCB) is responsible for establishing, maintaining and promulgating architectural and engineering criteria and standards for the design, construction, reconstruction, maintenance, and operation of the Metro system.

The DCB is composed of the Chief Engineer or their designee, who is the Chair, and WMATA executives and senior management.

The fourth representative on the DCB will be from for the office charged with the day to day operation and maintenance of the portion of the system or facility that is the subject of the variance being reviewed by the DCB.

Requests for change (RFC) will contain a description of the proposed change, justifications for change and supporting documents.

The DCB will review the proposal and, if approved, will release the RFC, and authorize other actions necessary for implementation for the approved changes.

Any department may appeal decisions of the Design Control Board to the GM.

The GM/CEO has final appeal decision. WMATA Policy/Instruction No. 4.14/3; Design Control Board, controls infrastructure modifications.

SOP #1, Engineering Modification Instruction is used to control changes in rail vehicles, track and systems.

A hazard analysis, as identified in Section 6.2 of this document, must be included in the change process.

This hazard analysis must be performed for the initiation, modification or deletion of architectural and engineering criteria and standards for the design, construction, reconstruction, maintenance, or operation of the Metro system.

The hazard analysis should be reviewed by the DCB, in conjunction with the change proposal package, prior to release of an RFC.

17.3 Authority for Change

Authority for change to the architectural and engineering criteria and standards for the design, construction, maintenance and operation of the Metrorail system and Metrobus facilities is governed by WMATA Policy/Instruction No. 4.10/3; Configuration Control Management and P/I No. 4.14/3; Design Control Board.

The Chief Engineer is responsible for establishing the Design Control Board and for maintaining a database necessary for change control and problem tracking.

The Chief Engineer is responsible for ensuring compliance with the policy by each operating department, and for forwarding all rail related requests to the Design Control Board for action.

The Chief Engineer is responsible for maintaining the original copy of the WMATA Standard Drawings, Design Drawings, Design Criteria and Standard Specifications.

New proposals, modifications, revisions and deletion requests of architectural and engineering criteria and standards for the design, construction, reconstruction, maintenance, or operation of the Metro system must be submitted to the DCB for review and approval.

18.0 Local, State, and Federal Requirements

18.1 Occupational Safety and Health

WMATA industrial, maintenance and construction activities must comply with Federal, state and local occupational safety and health (OSH) laws, standards and regulations, including the Code of Federal Regulations title 29, part 1904, Record Keeping, title 29, part 1910, General Industry Standards and title 29, part 1926, Construction Standards.

SAFE utilizes applicable consensus standards, including those established by the American National Standards Institute (ANSI) and the National Fire Protection Association (NFPA).

These standards must apply to both employees and contractors.

In addition, the contractor is responsible for all subcontractors, suppliers or other persons working under their direction to comply with all safety requirements.

Industrial activities include industrial, maintenance and support functions of BTRA, BMNT, CFO (TRES-RCF), HR, COO, RADS, ODEV, OPMS, PRMT, MTPD, RSTO and RTRA.

During training, emphasis is placed on the proper use of hazardous chemicals and personal protective equipment. Required personal protective equipment is provided with management and supervision enforcing its proper use.

Employees have the responsibility to use and properly maintain all required protective equipment.

In addition to engineering and administrative controls, procedures are established for the control of all hazardous materials, processes and other hazards in the industrial environment.

On-the-job training conducted by all departments emphasizes preventive occupational safety and health practices.

SAFE has the primary responsibility to develop and provide formal safety and environmental training courses for employees.

It is the responsibility of each manager and supervisor of all WMATA departments to ensure a safe and healthful work environment for all employees assigned to activities under their direction.

Each manager and supervisor is responsible for having knowledge of and ensuring compliance with all applicable Federal and state OSH laws, standards and regulations.

Although the OSH Act stipulates that employees are responsible for complying with OSH standards, the employer is legally responsible and held accountable for the employees' compliance.

Procedures are established that facilitate disciplinary action against those individuals who fail to comply with applicable OSH laws, standards and regulations.

Examples of types of employee actions that should be subject to disciplinary action are failure to use/wear required personal protective equipment, failure to follow proper chemical handling procedures and the unauthorized modification of safety equipment and devices.

SAFE uses posters to promote safety awareness and increase support of safety activities. Safety awareness posters are developed and distributed for display in highly visible areas throughout the workplace.

18.1.1 Personal Protective Equipment

Appropriate personal protective equipment (PPE) is provided and its use is required by all WMATA personnel.

All PPE equipment is evaluated and approved by SAFE, prior to procurement by the using organization. The results of the evaluation of requested PPE are recorded on the SAFE Procurement of Personal Protective form.

SAFE has been provided access to certain PRMT databases to monitor purchases of personal protective equipment.

Management and supervision of BTRA, BMNT, CFO (TRES-RCF), RADS, COO, RSTO, RTRA and IT are responsible for providing the necessary personal protective equipment and enforcing employees use of the equipment.

Individual employees who are required to wear SAFE approved safety work boots and shoes must provide their own shoes that comply with OSH regulation Code of Federal Regulations title 29, part 1910.136, “Foot Protection.” Many employees are provided a uniform or tool allowance, which can be used to purchase safety shoes.

PRMT must implement the required quality control procedures to ensure that only personal protective equipment, previously reviewed and approved by SAFE, on the SAFE Procurement of Personal Protective form, is accepted by the receiving storerooms.

Selection of police equipment including body armor, weapons and chemical agents is the responsibility of the Chief of MTPD.

SAFE assists MTPD in selection of personal protective equipment for use against Bloodborne Pathogens and weapons of mass destruction.

18.1.2 Hazard Communication Program

The objective of this program is to ensure employee safety in the use of chemicals and hazardous materials and to ensure compliance with Federal and state hazard communication standards (Right-To-Know Laws) and applicable jurisdictional fire and building codes.

The fundamental requirements of the Federal, Virginia and Maryland Right-To-Know laws/standards are included in the WMATA Safety Rules and Procedures No. 4.2/1, Hazard Communication Program.

Employers are required train their employees on how to read the new GHS formatted safety data sheets and labels before working on a WMATA property.

18.1.3 Safety and Industrial Hygiene Studies and Reviews

SAFE is responsible for monitoring facility compliance with applicable OSH standards (Code of Federal Regulations title 29, part 1910, General Industry Standards and title 29, part 1926, Construction Standards) and applicable state and local codes and standards.

SAFE personnel work with managers and supervisors to develop programs to assist in ensuring a safe and healthful work environment.

SAFE performs periodic safety audits of inspections performed by facility personnel.

SAFE develops and maintains procedures for the following programs:

- Confined Space;
- Bloodborne Pathogens;
- Hazard Communication;
- Hearing Conservation;
- Respiratory Protection;
- Lockout/Tagout; and
- Personal Protective Equipment.

Industrial hygiene studies are conducted to evaluate the degree of employee (and customer) exposure to chemical and physical agents encountered in the work environment, including the office environment.

The initial assessments are utilized to determine the necessary corrective action, including implementation of engineering and administrative controls and/or the required use of personal protective equipment.

Comprehensive reports of the industrial hygiene study are submitted to the responsible office director. Industrial hygiene studies are performed on a hazard priority basis.

The priority is established by SAFE, through an evaluation of the work processes, including type of work performed, types of chemicals or hazardous materials used to which persons are exposed, frequency and duration of exposure and number of employees (or patrons) exposed.

An example of high priority exposures are:

- Work involving exposure to asbestos;
- High airborne concentrations of lead, silica and other particulate and aerosols;
- Organic solvents; and
- High noise levels.

In addition, high priority is given to employee or customer concerns and requests for assistance from the HR Medical Director.

SAFE enters hazards identified through these reviews into the Hazard Management Matrix for resolution.

18.1.4 Medical Surveillance

SAFE assists Occupational Health and Wellness (OHAW) of HR to identify abnormal conditions in the workplace and to determine causes of occupational injuries and illnesses.

SAFE identifies at-risk positions requiring medical surveillance and works with HR/OHAW to monitor employee exposure to chemical and physical hazards within acceptable guidelines and/or regulatory limits.

18.1.5 Processes to Assess Safety Training Effectiveness

SAFE provides mandatory safety training for employees in accordance with OSH requirements.

Employees are tested on their knowledge of the course material upon completion of the course.

Supervisors are required to assess employee knowledge of regulatory requirements during performance of work tasks and provide refresher training as necessary.

SAFE field personnel perform spot checks of employee and supervisor knowledge of regulatory safety requirements as part of their facility and work site inspections and audits and recommend that employees and supervisors be provided refresher training as required.

18.2 Working on or Near Rail Transit Controlled Property

All WMATA employees, who work on or near the Metrorail system, receive preliminary employee RWP safety training during New Employee Orientation, however an eight (8) hour class is required for employees and contractors.

Testing is performed to ensure that employees know and understand the requirements. Employees who do not pass the test are not permitted to work on or near the ROW.

Successful completion of RWP classroom training is required every two (2) years.

Successful completion of RWP refresher computer based training is required every other year.

In addition, depending on their assignment, employees are provided job specific safety training in their technical, maintenance, or operations training programs.

MTPD, Rail, RSTO and RTRA employees and all employees who work on or near the rail system are provided training in the MSRPH and are tested as described in section 16.2, Safety-Training Programs.

All contractors who perform work on, or interface with the operating systems are required by contract to ensure that supervisors and assigned employees attend training on RWP.

This training course is presented by OPMS in cooperation with SAFE.

An examination is provided at the end of RWP training sessions. Only those who receive a passing grade, 100% on the Cardinal Rules and (84%) on the RWP Manual, are authorized to work on the ROW.

The Contractor's employee identification badge (I.D.), issued by WMATA, includes a RWP/trained endorsement for those who received the training and passed the examination.

WMATA employees, who are assigned to monitor contractor work and escort contractor employees on the ROW, are required to check contractor I.D. badges to ensure that they have the RWP-trained endorsement.

If a contractor's employee is found on the ROW without an approved contractor's employee I.D. badge with the RWP-trained endorsement, they are considered a trespasser and are subject to prosecution.

WMATA employees, including inspectors, escorts and SAFE are authorized to remove a contractor from a worksite if they demonstrate a lack of knowledge and understanding of the applicable MSRPH and RWPM rules and procedures.

SAFE conducts periodic inspections of contractor ROW worksites and other worksites to assess knowledge of and compliance with the MSRPH, RWPM and applicable OSH regulations.

Identified hazards are entered into the SMS$_M$ Hazard Management Module.

18.3 Contractor Compliance with Required Safety Programs

SAFE, in coordination with CENI, and the contractor, administer construction safety as required by the WMATA Construction Safety and Environmental Manual (Revised 2013) and specified contract safety requirements.

The referenced documents contain requirements concerning contractor safety programs and qualifications of safety superintendents.

These include applicable Federal (OSHA), state and local safety requirements.

The contractors are required to have required OSHA programs in place as applicable to the work required by the contract.

Documentation of required programs is part of the contract submission process.

The contractor is responsible for ensuring that its employees comply with OSH regulations and WMATA rules and procedures.

Contracts require compliance with specific OSHA regulations and employee safety programs as applicable to the work being performed.

SAFE reviews and approves the contractor's site safety superintendents.

SAFE conducts regular inspections of contractor worksites to assess contractor employee knowledge of and compliance with regulatory and contract requirements.

Deficiencies are brought to the attention of contractors' project managers for corrective action.

SAFE conducts follow-up inspections to ensure implementation of corrective action. Identified hazards are entered into the SMS$_M$ Hazard Management Module.

19.0 Hazardous Materials

SAFE is responsible for developing procedures that ensure compliance with the hazardous materials standards by all WMATA employees.

All chemicals and hazardous materials used by WMATA employees or in the WMATA operating system must be evaluated and approved by SAFE prior to use or testing of the product, in accordance with the Hazard Communication Program.

The using organization must ensure that SAFE has reviewed and has submitted written approval of requested chemical products, prior to procurement, including procurement utilizing blanket orders, petty cash, purchase cards, construction specifications or equipment specifications.

PRMT does not process requests for chemical products without a written approval from SAFE and an approved SDS number on file for that product.

SCES must implement the required quality control procedures to ensure that only chemical products and hazardous materials, previously reviewed and approved by SAFE and assigned a unique SDS number, are accepted by the receiving storerooms.

Substitutes for chemical products and hazardous materials must be reviewed by SAFE and approved prior to procurement.

All users of any approved product must read the Evaluation/SDS Approval prior to using the product and follow all instructions and precautions.

SAFE may conduct site visits where chemicals are being used to ensure that workers are aware of the hazards and that they are using the proper PPE.

SAFE will maintain an online database for SDSs.

Access to approved SDSs is available through the Intranet Home Page/Safety Data Sheet Search application.

Departments whose employees use hazardous chemicals and materials may also have links from their departmental Websites to the Intranet SDS Home Page.

20.0 Drug and Alcohol Abuse

The HR/OHAW has primary responsibility for administering a Substance Abuse Testing Program in accordance with Code of Federal Regulations title 49, part 40, Procedures for Transportation Workplace Drug and Alcohol Testing Programs and title 49, part 655: Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations. WMATA Policy/Instruction No. P/I 7.7.3/5 (Drug and Alcohol Testing Program) establishes requirements and responsibilities for administering the required programs.

HR/OHAW monitors the program of each department and ensures that employees in safety sensitive positions who are returning to work from the program have been medically certified to do so.

The major goal of the Substance Abuse Policy is to ensure a safe operating environment for the public and WMATA employees.

The primary purpose of the Employee Assistance Program is to refer employees to the appropriate medical and/or rehabilitation treatment and counseling.

The objective is to help them resolve their substance abuse problems, with the goal of returning them to their full productive job capacity.

HR/OHAW has the primary responsibility for the verification of compliance with the Substance Abuse/EAP Program through random and post-incident testing and medical certification of capability of return to duty for employees and contractor employees assigned to safety sensitive positions.

The Safety-Sensitive Contractor Compliance Monitoring Section of OHAW monitors the Drug and Alcohol Testing Program for WMATA’s safety-sensitive contractors to ensure Metro’s compliance with FTA regulations.

21.0 Procurement

21.1 Overview

PRMT will provide to SAFE for review, of the safety requirements, any bid proposal that requires activities to be performed on the roadway before awarding the contract.

The following factors are considered by the program (user) requesting procurement of the equipment, vehicles, systems, or facilities in deciding what, if any safety requirements are to be included.

PRMT will ensure that all equipment and materials identified by the using organization or SAFE as safety critical will be coordinated through SAFE.

Compatibility will be assured with the safety features, design, and procedures of the existing Metro system through:

- Requirements that modifications involving procurement or the procurement of new equipment cannot occur unless SAFE has determined whether safety certification will occur;
- Incorporation of “fail-safe” principles when failures would cause a catastrophic event resulting in injury to personnel, damage to equipment, or inadvertent operation of critical systems;
- Avoidance, elimination, or reduction of identified safety hazards by design change, safety devices, and parts or materials selection;
- Location of equipment components so that access by personnel during operation, maintenance repair, or adjustment activities do not require exposure to hazards; e.g.;, electrical shocks, burns, sharp edges or points, and dangerous or toxic materials;
- Design to minimize severe damage to equipment or injury to personnel in the event of an accident;
- Avoidance of undue exposure to physiological stresses, which might cause errors leading to an accident;
- Provision of suitable warning and caution notes in instruction for operation assembly, maintenance, and repair, and distinctive markings for personal protection on hazardous components, equipment, and facilities; and
- Material Discrepancy Reports are used to document and track defective parts, when such items are identified. PRMT works with the responsible vendor to resolve defective parts issues. QMA provides receiving inspection for all receiving storerooms for Rail Services.

Basic safety and user requirements are included in procurement specifications and coordinated with appropriate offices.

As new facility, system, or equipment specifications are proposed, responding contractors are required to resolve hazards, in accordance with the following prioritized list:

- Design for Minimum Hazard:
    - The major effort during the design phase of a contract must be to select appropriate safety design features (e.g., fail-safe, redundancy).
- Safety Devices:
    - Hazards, which cannot be eliminated through design, must be reduced to an acceptable level with appropriate safety devices.
- Warning Devices:
    - Where it is not possible to preclude the existence or occurrence of a hazard, devices must be employed for the timely detection of the condition and the generation of an effective warning signal.
- Special Procedure:
    - Wherever it is not possible to reduce the magnitude of an existing or potential hazard through design or the use of safety and warning devices, the development of special procedures to control the hazard must be required.

Specifications include the requirement that contractors who provide systems, subsystems, or equipment that affect safe movement of vehicles or passenger and employee safety, establish and maintain a system safety program in accordance with a WMATA-approved system safety program plan, which defines objectives, tasks, procedures, schedules, and data submittals for the safety activities that will be performed by the contractor.

The contractor's system safety program plan (SSPP) and supporting documentation are reviewed and approved by the Contracting Officer's Authorized Representative (AR), subject to review and approval by SAFE.

Specifications also include the requirement for a contractor's Quality Control Program and Quality Assurance Program in accordance with the WMATA Quality Assurance Program Manual.

21.2 Procurement of Chemicals and Hazardous Materials

All chemicals products and hazardous materials are procured in compliance with the guidelines established by Policy Instruction (P/I) 10.1/2 - Environmental Management Policy, P/I 8.11/1 - Purchase Card Policy, Safety Rules and Procedures, Procedure No. 8.0 - Hazard Communication Program, and the Procurement Procedures Manual.

All chemicals and hazardous materials must have an SDS that is reviewed and approved by SAFE prior to use by Authority employees or by contractors on Authority property.

The use of Purchase Cards for chemical and hazardous materials purchases must comply with section 8.0, "Transaction Procedures," 8.01 (g) and section 10.09 of the WMATA Purchase Card Guidelines.

Only chemicals and hazardous materials with a previously approved SDS may be procured with a Purchase Card.

21.3 Inspection of Contractor Equipment, Vehicles, Work and Deliverables

All equipment and vehicles that a contractor intends to use in the Metrorail system or on Authority property must be evaluated and approved by the Contracting Officer's Technical Representative (COTR) in accordance with TRST OAP 208-04, Contractor Rail Equipment Inspection, and is subject to review and approval by SAFE, prior to use.

The WMATA Best Practices Training Guide for COR's and COTR's, requires the COTR to perform inspections of contractor work and deliverables prior to acceptance.

The purpose of the inspection is to determine if a product or service meets the requirements of the contract and can be used or placed into stock. The extent of the inspection varies with the dollar value of the contract and the product or service procured.

At a minimum, the Authority COTR is required to inspect contractor deliveries in order to determine whether:

- The proper type or kind of supplies were provided;
- The correct quantity of supplies were provided;
- Any changes or deviations from contract requirements exists;
- The product operates as intended;
- There are no signs of spoilage or age deterioration;
- The item is properly identified or marked; and
- Appropriate packaging was provided.

Inspection Methods of the contract deliverables by the COTR include:

- Sensory and dimensional checks;
- Performance or physical tests; and
- Quality tests.

Nonconformance with the contract specifications is unacceptable if it adversely affects:

- System safety, or the safety and health of the product user;
- Reliability, durability, or performance;
- Interchangeability of parts or assemblies; and
- Any other basic objective of the contract.

The COTR documents inspection findings and informs the Contractor in a timely manner. Issues are resolved in accordance with the contract provisions.

21.4 Inspection of Inventory Material

Quality Mission Assurance (QMA) procedure 113-05, Receiving Inspection Policy and Procedures, defines and establishes processes for acceptance of rail car materials, parts, tools and equipment.

This procedure is to prevent the unintended use of any materials, parts, tools and equipment that do not meet the established criteria and specifications established by Rail.

BMNT Inventory/Contract Policy Procedure 3.20, Quality Control and Inspection of Bus material, October 22 2015, defines and establishes processes for acceptance of any bus materials, parts and equipment prior to being entered into inventory at the Metro Supply Facility. This procedure is to prevent the unintended use of any materials, parts and equipment that do not meet the established criteria and specifications established by BMNT.

Safety Assurance and SAFE perform storeroom inspection of Metro Access contractor facilities for compliance. The storeroom inspections are completed and documented on form #100-FM-28.

21.5 First Article and Safety Certification of New Busses

First Article and Safety Certification inspections of new busses are performed at the OEM's facility.

Inspections are performed to an inspection checklist that is developed specifically for the model of the bus to be inspected.

Any discrepancies discovered are documented and presented to the OEM for resolution.

Upon competition of the inspection's, the new bus is shipped to a WMATA facility where the first Article and Safety Certification inspections are performed again to ensure that no discrepancies were introduced during shipment.

Any discrepancies discovered are resolved at the WMATA facility by the OEM.

Upon competition of the inspections, a Temporary Use Notice (TUN) is issued for that individual bus allowing it to enter revenue service.

Upon delivery and acceptance of the last bus of the order, a certificate of conformance is issued for the completed shipment.

Appendix A - References

FTA, NTSB, FRA and APTA have stressed the safety aspects of rapid transit programs and the need for a formal approach to safety management in documents one (1) through six (6). Documents seven (7), eight (8) and nine (9) address OSH Standards. Document ten (10) was used as a guideline in preparing the document.

1. Tri-State Oversight Committee. TOC Program Standards and Procedures. Washington, DC: September 2012.

2. U.S. Department of Transportation, Federal Transit Administration. Code of Federal Regulations, title 49, part 659, Rail Fixed Guideway Systems; State Safety Oversight; Final Rule. Washington, DC: GPO, April 29, 2005.

3. U.S. Department of Transportation, Federal Transit Administration. Code of Federal Regulations, title 49, part 659, Rail Fixed Guideway Systems; State Safety Oversight Reference Guide. Washington, DC: June 22, 2005.

4. U.S. Department of Transportation, Federal Transit Administration. Implementation Guidelines for Code of Federal Regulations, title 49, part 659. Washington, DC: March 2006.

5. U.S. Department of Transportation, Federal Transit Administration. Resource Toolkit for State Oversight Agencies Implementing Code of Federal Regulations, title 49, part 659. Washington, DC: March 2006.

6. U.S. Department of Transportation, Federal Transit Administration. Handbook for Transit Safety and Security Certification. Washington, DC: November 2002.

7. U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations, title 29, part 1910, Safety and Health Standards for General Industry. Washington DC: 2012.

8. U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations, title 29, part 1926, Safety and Health Standards for Construction. Washington, DC: 2012.

9. U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations, title 29, part 1904, Standards for Record Keeping. Washington, DC: 2012.

10. University of Chicago Press. The Chicago Manual of Style. 15th ed. Chicago: University of Chicago Press, 2003.

Appendix B - Acronym Glossary

A	Audit Responsibility
A/T	Analytical/Technology
AC	Alternating Current
ACCS	Department of Access Services
ACSO	Assistant Chief Safety Officer
ACGIH	American Conference of Governmental Industrial Hygienists
ADAP	Office of ADA Policy and Planning
AED	Automated External Defibrillator
AGM/ACCS	Assistant General Manager, Access Services
AGM/BUS	Assistant General Manager, Department of Bus Service
AGM/IT	Assistant General Manager, Information Technology
AGM/PLJD	Assistant General Manager, Department of Planning and Joint Development
AMTRAK	National Railroad Passenger Corporation's Intercity Passenger Train Service
ANSI	American National Standards Institute
APCA	Air Pollution Control Act
APTA	American Public Transportation Association
AR	Authorized Representative of the Contracting Officer
ATC	Automatic Train Control System
ATO	Automatic Train Operation System
ATP	Automatic Train Protection System
ATS	Automatic Train Supervision System
BCCB	Bus Change Control Board
BENG	Chief of Bus Engineering
BMNT	Office of Bus Maintenance
BOCC	Bus Operations Control Center
BSEH	Department of Bus Service Employees' Handbook
BTRA	Office of Bus Transportation
BTS	Bureau of Transportation Statistics
BUS	Department of Bus Service
CAO	COG's Chief Administrative Officers Committee
CAP	Corrective Action Plan
CCTV	Closed Circuit Television System
CDL	Commercial Driver's License
CENI	Office of Infrastructure Services
CENV	Office of Vehicle Program Services
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFO	Department of Finance, Chief Financial Officer
CFR	Code of Federal Regulations
CIT	Construction, Inspection and Testing
CMNT	Office of Car Maintenance
CMO	Chief Mechanical Officer

CN	Change Notice
CNG	Compressed Natural Gas
COG	Metropolitan Washington Council of Governments
COMM	Office of Communications
COO	Chief Operating Officer
COOP	Continuity of Operation Plan
COTR	Contracting Officer's Technical Representative
COUN	Office of General Counsel
CPG	Comprehensive Preparedness Guide
CPMO	Capital Program Management Office
CPO	Office of Performance
CPPM	Chief of Capital Planning and Program Management
CPR	Cardiopulmonary Resuscitation
CSCM	Department of Customer Service, Communications and Marketing
CSO	Chief Safety Officer
CSVC	Office of Customer Service
CSX	Rail Based Transportation Company
CTF	Carmen Turner Facility
CWA	Clean Water Act
DCB	Design Control Board
DCO	Deputy Environmental Compliance Officer
DCS	Departmental Safety Committees
DDOT	District of Columbia Department of Transportation
DECO	Chief Engineer Design and Construction
DGMA/CFO	Deputy General Manager, Administration-Chief Financial Officer
DMV	The District, Maryland and Virginia Area
DOT	Department of Transportation
DPS	Drainage Pumping Station
DST	Daily Safety Test
EAC	Equipment Advisory Committee
EAP	Employee Assistance Program
ECO	Environmental Compliance Officer
EF	Essential Functions
ELES	Office of Elevators and Escalators
ELIG	Office of Eligibility Certification and Outreach
EMI	Engineering Modification Instruction
EMIH	Office of Environmental Management and Industrial Hygiene
EMS	Emergency Medical Services
EMT	Executive Management Team
ENG	Engineering
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPC	Emergency Preparedness Council
EPCRA	Emergency Planning and Community Right-To-Know Act
ERTF	Emergency Response Training Facility
ESC	Executive Safety Committee

ESF	Emergency Support Functions
ETEC	Emergency Tunnel and Evacuation Carts
ETS	Emergency Trip Stations
F&I	Fire and Intrusion Alarm System
FCN	Field Change Notice
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FRA	Federal Railroad Administration
FRMS	Fatigue Risk Management System
FTA	Federal Transit Administration
FWSO (FTA)	FTA-WMATA Safety Oversight Office
FY	Fiscal Year
GM/CEO	General Manager/Chief Executive Officer
GOTRS	General Orders and Track Rights System
HOMT	Heavy Overhaul Maintenance
HR	Department of Human Resources
HRTM	Human Resources Training and Organization Development Branch
HSEC	Homeland Security Executive Committee
HSEEP	Homeland Security Exercise and Evaluation Program
HSPSPC	Human Services and Public Safety Policy Subcommittee
IACO	Internal Assurance and Compliance
ICS	Incident Command System
IDW	Intrusion Detection and Warning System
IG	Office of Inspector General
INCP	Department of Internal Compliance
IPLN	Intermodal Strategic Planning
IRP	Infrastructure Renewal Program
IRPG	Office of Infrastructure Renewal Programs
ISSR	Internal Safety and Security Review
IT	Department of Information Technology
JGB	Jackson Graham Building (Headquarters)
MACS	Office of MetroAccess Service
MARC	Maryland Area Regional Commuter Train Service
MAXIMO	IBM Asset Management Software
MCSR	Motor Carrier Safety Regulations
MDOT	Maryland Department of Transportation
MNT	Maintenance
MOC	Maintenance Operations Center
MOSA	Maryland Occupational Safety and Health
MREL	Media Relations
MSDS	Material Safety Data Sheets
MSF	Metro Supply Facility
MSRPH	Metrorail Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
MWCOG	Metropolitan Washington Council of Governments
NCA	Noise Control Act

NCR	National Capital Region
NCREPC	The National Capital Regional Emergency Preparedness Council
NCTA	National Capital Transportation Agency
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NIMS	National Incident Management System
NIOSA	National Institute for Occupational Safety and Health
NRC	National Response Center
NRF	National Response Framework
NTD	National Transit Database
NTP	Notice to Proceed
NTSB	National Transportation Safety Board
OAP	Operations Administrative Procedures
OCC	Operations Control Center
ODEV	Office of Organizational Development
OEM_M	Office of Emergency Management
OEM	Original Equipment Manufacturer
OHAW	Occupational Health and Wellness
OIG	Office of Inspector General
OPMS	Office of Operations Management Services
OPS	Operations
OSA	Office of Safety Assurance (SAFE)
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
P	Primary Responsibility
P/I	Policy/Instruction, or Policy Instruction
PA	Public Address System
PABX	Private Automatic Branch Exchange
PARK	Office of Parking
PDF	Adobe Portable Document Format
PERS	Passenger Emergency Reporting System
PIDS	Passenger Information Display System
PLJD	Department of Planning and Joint Development
PLM	Product Life Cycle Management
PLNT	Office of Plant Maintenance
PME	Precision Measurement Equipment
PMI	Preventative Maintenance Inspection
PPE	Personal Protective Equipment
PRMT	Office of Procurement and Materials
PSPC	Public Safety Policy Committee of Washington Metropolitan Council
QICO	Internal compliance and Oversight
QMA	Quality Mission Assurance
R	Review and Comment
RADS	Office of Replication and Digital Services
RCF	Revenue Collection Facility

RCRA	Resource Conservation and Recovery Act
RECP	Regional Emergency Coordination Plan
RESF	Regional Emergency Support Function
RFC	Requests for Change
RISK	Office of Risk Management
ROCC	Rail Operations Control Center
ROCS	Rail Operations Control System
ROW	Roadway
RSDAR	Rail Supervisor Daily Activity Report
RSTO	Office of Rail Train Operations
RTRA	Office of Rail Transportation
RWP	Roadway Worker Protection
RWPM	Roadway Worker Protection Manual
S	Secondary Responsibility
S&I	Service and Inspection
SAFE	Department of Safety and Environmental Management
SARA	Superfund Amendments and Reauthorization Acts
SCES	Office of Supply Chain Enterprise Services
SCIL	Safety Critical Items List
SCRC	Security Certification Review Committee
SDS	Safety Data System
SMNT	Office of Rail System Maintenance
SMS	Safety Management System
SMS_M	Safety Measurement System
SOP	Standard Operating Procedures
SRP	Safety Rules and Procedures
SSC	Safety and Security Certification
SSCP	Safety and Security Certification Plan
SSO	State Safety Oversight
SSPP	System Safety Program Plan
SSRV	Support Services
STDS	System Time Distribution System
TCN	Temporary Change Notices
TKIN	Track Inspection Division
TOC	Tri-State Oversight Committee
TPC	Third Party Claims
TPCP	Track Production Capital Program (Branch)
TRES	Office of Treasurer
TRST	Office of Track and Structures
TSCA	Toxic Substances Control Act
TSIA	Track Structures Inspection & Analysis (Branch)
TSMN	Track and Structure Maintenance (Branch)
TTY	Teleprinter System
TUN	Temporary Use Notice
UPS	Uninterruptible Power Supply
VADRPT	Virginia Department of Rail and Public Transportation

VDOT	Virginia Department of Transportation
VOSA	Virginia Occupational Safety and Health Service
VOSA	Department of Labor and Industry, Occupational Safety and Health Service
VRE	Virginia Railway Express
WMATA	Washington Metropolitan Area Transit Authority
XML	Extensible Markup Language

Appendix C - Glossary of Terms

The following is a glossary of terms used in this System Safety Program Plan. Note: Definitions are taken from the APTA Publication "Moving People Safely", unless otherwise indicated.

[Bus] and **[Rail]** indicate that the terms are specific to a bus or rail function, respectively.

Accident - An unforeseen event or occurrence that results in injury or property damage.

Advertised Run [Bus] – A new vacant run posted on the board at all divisions for bidding by any operator who desires it. (WMATA)

Alight – To disembark from a vehicle. (WMATA)

Automatic Train Control (ATC) System [Rail] – The ATC system consists of three control subsystems and a computerized Central Control Facility. The three control subsystems are Automatic Train Operation (ATO), Automatic Train Protection (ATP), and Automatic Train Supervision (ATS). Each performs its own particular functions independently of the other two to a certain extent. The operations of the three subsystems are coordinated through the computer at Operations Control Center to achieve an integrated system. (WMATA)

Automatic Train Operation (ATO) [Rail] – That subsystem within the ATC system that performs functions normally performed by the train operator. These functions are regulation of acceleration rate, speed, rate of deceleration, programmed stopping, and door control in conjunction with ATP and the Train-to-Wayside Communication System. (WMATA)

Automatic Train Protection (ATP) [Rail] – That subsystem within the ATC System that enforces safe operation of the system. It imposes speed limits both to maintain train separation and to operate trains in accordance with civil speed restrictions. At interlocking's, ATP ensures that train movement is permitted only when a route is available through the interlocking's, and the switches are safely locked in position. In all cases where two or more trains request the use of a single segment of track or interlocking's the ATP prevents occupancy by more than one train. (WMATA)

Automatic Train Supervision (ATS) [Rail] – The ATS subsystem controls and supervises the routing and scheduling of the trains. ATS also supervises and controls the transit system mechanical support and electrical power facilities. (WMATA/GRS)

Block [Rail] – A section of track of defined limits, the use of which is governed by interlocking signals and cab signals under control and protection of the ATC System.

Block, Absolute [Rail] – A section of track between two specific locations into which no train is permitted to enter a section that is occupied by another train. This absolute block is established and governed by the Operations Control Center when necessary, due to a carborne malfunction (e.g., ATP or Braking) or ATC failure. (WMATA)

BLOCK NUMBER [Bus] – A letter/number combination assigned to a segment of a bus schedule and displayed in the right front window of a bus. (WMATA)

Boarding – To embark on a vehicle. (WMATA)

Characteristics, Operating – Those quantitative, measurable parameters pertinent to a specific system, subsystem, device or component that provide definition of performance.

Clearances [Rail] – The distance between specified points along the track and specified points on moving vehicles.

Configuration Management – The effective control of a facility's as-built arrangement and operation to ensure compliance with approved and/or accepted technical requirements and other governing criteria.

Construction Safety – The optimum degree of safety within the constraints of effectiveness, time, and cost through specific application of safety management techniques throughout all phases of construction.

Contract Service [Bus] – An arrangement whereby a Metrobus is reserved for regular transportation without cost to riders. Contract service is paid by an agency or government, e.g., Department of Defense, Alexandria City Schools. (WMATA)

Crash Safety – A system characteristic that allows the system occupants to survive the impact of a crash and to evacuate the system after potentially survivable accidents.

Crash Worthiness – The capacity of a vehicle to act as a protective container and energy absorber during impact conditions.

Crossover [Rail] – Two turnouts, with track between the frogs, arranged to form a continuous passage between two parallel tracks. (FTA)

Cutback [Bus] – A turn back short of the regular destination. (WMATA)

Deadheading [Bus] – A bus in non-revenue service, marked "NOT IN SERVICE". (WMATA)

Degradation – Falling from an initial level to a lower level in quality or performance.

Dragging The Line [Bus] – Operating a bus so that it is behind the scheduled time of the following bus. (WMATA)

Emergency Incident/Event – any condition, which can or has resulted in harm to customers or employees; damage to equipment or property; service disruptions of 10 minutes or more requiring a multi-agency response; or any combination of these circumstances.

Exclusive Bus Lane [Bus] – The right hand lane along major bus routes that is reserved during peak hours of operation for buses, taxi cabs, and cars turning right. (WMATA)

Express Bus [Bus] – Buses serving outlying areas with limits on where they can pick-up and discharge passengers. (WMATA)

Fail-Safe (Safety) – A characteristic of a system and its elements, the object of which is to ensure that any fault or malfunction, will not result in an unsafe condition.

Fail-Safe Design – A design principle in which each of the elements which make up a system is analyzed to determine the potential consequence of failure of that element, alone or in combination with any or all other elements of the system, to ensure that a failure or a combination of failures will not result in an unsafe condition.

Failed Component – A component that has ceased to perform its intended function.

Failure – An inability to perform an intended function.

Failure Analysis – The logical systematic examination of a system to identify and analyze the probability, causes and consequences of potential and real failure.

Failure Assessment – The process by which the cause, effect, responsibility and cost of an incident (reported problem) in the transit system is determined and reported.

Failure, Human – Failure due to human error.

Failure Management – Decision, policies and planning which identify and provide alternate measures to operate around potential failures in a safe manner. (WMATA)

Failure Mode and Effect Analysis (FMEA) – An inductive procedure in which potential malfunctions are identified and then analyzed as to their possible effects.

Fault Tree Analysis – A deductive process that graphically presents undesired events to determine possible causes of that event.

Follower [Bus] – The bus scheduled behind another bus. (WMATA)

Frog, Track [Rail] – A track structure used at the intersection of two running rails to provide support for wheels and passageways for their flanges, thus permitting wheels on either rail to cross the other. (FTA)

Hazards – Any real or potential condition that can cause injury or death, or damage to or loss of equipment or property.

Hazard Analysis – An analysis performed to identify hazardous conditions for the purpose of their elimination or control.

Hazard Severity (MIL-STD 882) – Hazard severity is defined to provide a qualitative measure of the worst credible mishap resulting from personnel error, environmental conditions, design inadequacies, procedural efficiencies for system, subsystem or component failure or malfunction as follows:

- **Category I** – **Catastrophic**. Death or system loss.
- **Category II** – **Critical**. Severe injury, severe occupational Illness, or major system damage.
- **Category III** – **Marginal**. Minor injury, minor occupational illness, or minor system damage.
- **Category IV** – **Negligible**. Less than minor injury, occupational illness or system

Hazard Probability (MIL-STD 882) – The probability that a hazard will occur during the planned life expectancy of a system, expressed in potential occurrences per unit of time, events, population, items, or activity.

Hazard Resolution – The analysis and subsequent actions taken to reduce to the lowest level practical, the risk associated with an identified hazard.

Headway [Bus] – The time between buses operating on the same route. (WMATA)

Headway [Rail] – The time separation between two trains, both traveling in the same direction on the same track, measured from the time the head end of the leading train passes a given reference point to the time the head end of the train immediately following passes the same reference point. (FTA)

Incident – An unforeseen event or occurrence that does not result in injury or property damage.

Interlocking [Rail] – An arrangement of signals and signal appliances associated with turnouts, crossovers and pocket tracks so interconnected that their movements must succeed each other in proper sequence. (WMATA)

Kiosk - An octagonal structure located at each entrance to a station that serves as the hub of communications for the station. (WMATA)

Line [Bus] – The route a bus is scheduled to operate. (WMATA)

Local [Bus] – A bus that stops for either boarding or discharging passengers at every stop on the route. (WMATA)

Mainline – Track over which passenger service is operated. (FTA)

Mode 1 (Automatic) [Rail] – Train operation with train under ATO control with ATP monitoring and protection. (WMATA)

Mode 2 (Manual with ATP Cutout) [Rail] – Train operation under manual (train operator) control without ATP monitoring and protection. This mode is not permitted unless passengers are evacuated from the train and an Absolute Block is established to allow train movement. (WMATA)

Notice to Operators (NTO) [Bus] – Rules, regulations and special instructions posted on the bulletin boards at each bus division. (WMATA)

Operations Control Center (ROCC) [Rail] – The place where train control and train supervision is accomplished for the entire transit system.

Owl Service [Bus] – Metrobus service between midnight and 5:00 a.m. (WMATA)

Peak Hours – Those weekday (excluding national holidays) periods normally associated with the AM and PM rush. (WMATA)

Personnel, Operating [Rail] – Those employees of a transit system having direct and supervisory responsibility for the movement of trains, embodying both on-board and wayside duties. (WMATA)

Pre-Trip Inspection [Bus] – A standard operating procedure outlining the necessary steps to inspect a bus for possible safety defects prior to entering revenue service. (WMATA)

Rail Fixed Guideway System – Any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway that is: (1) included in FTA's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas; and (2) not regulated by the Federal Railroad Administration. (FRA)

Rail Rapid Transit System – An electrified fixed guideway transportation system utilizing steel rails, usually for operating on an exclusive grade-separated Roadway for the mass movement of passengers within a city or metropolitan area. In addition consisting of its fixed way, transit car vehicles and other rolling stock, power system, maintenance facilities and other stationary and movable apparatus and equipment and its operating practices and personnel.

Regular Run [Bus] – A scheduled combination of trips whose total time guarantees, equals, or exceeds payment for the number of hours specified as a day's work. (WMATA)

Repetitive Accidents/Incidents: SAFE defines this term as, "Any accident, incident or similar occurrence that repeats itself more than once." Depending on the severity, risk assessment, hazard rating or safety critical nature of the accident, incident or similar occurrence, SAFE may conduct an investigation to determine the root cause after as few as one (1) occurrence. The exact number of required reoccurrences, 2 or greater, before an investigation is conducted, cannot be stated due to the above criteria.

Revenue Service – The transportation of passengers.

Risk Management – The management of hazard probability and severity so that possible loss is minimized. (MIL-STD 882B)

Route Number [Bus] – That number assigned to a run for identification purposes. (WMATA)

Safe – Secure from danger or loss.

Safety and Security Certification – A system that provides traceable verification that all safety-critical and security systems, subsystems, procedures and training programs have been reviewed for compliance with all applicable transit-related safety and security requirements prior to the commencement of passenger service or normal operations.

Safety Critical – A designation placed on a system, subsystem, element, component, device or function denoting that satisfactory operation or implementation is mandatory to safety assurance. (WMATA)

Safety Design Reviews – Reviews performed by SAFE to: assess the compliance of a facility or equipment design with safety, fire, and environmental regulations and requirements to ensure that the safety of existing WMATA equipment is not degraded by the addition of new facilities or equipment, as part of the configuration management process.

Safety design reviews are normally an integral part of engineering design reviews to minimize overlapping responsibilities. Safety design reviews are performed by SAFE on all new rail construction, and rail infrastructure renewal program (IRP) projects, joint development, adjacent construction projects and vehicle procurement.

Safety Measurement System – The Safety Measurement System (SMS_M) is a set of tools that allow the Department of Safety and Environmental Management (SAFE) to measure the overall system safety of WMATA. This set of tools provides both WMATA and SAFE a means to manage safety incidents, safety hotline reports, and hazards through modules of SMS_M by doing the following:

- Reducing paperwork;
- Eliminating redundant work efforts;

- Centralizing safety critical data;
- Direct tracking of identified problems; and
- Improved communication from the field to management and safety personnel.

Safety Oversight – The FTA Fixed Guideway Systems; State Safety Oversight regulation, Code of Federal Regulations title 49, part 659, requires that states in which a rail fixed guideway system operates, designate a state oversight agency to be responsible for overseeing the rail fixed guideway system's safety practices. (FTA)

Signal [Rail] – A means of communicating direction or warning.

Signal, Cab [Rail] – A signal in the train operator's cab that indicates prevailing speed commands, and conveys ATC system aspects.

Signal, Interlocking [Rail] – A visual wayside signal containing color-coded lights which governs movements into or within interlocking limits.

Subsystem – A defined portion of a system that is in turn composed of subsystems, component parts, or both. (WMATA)

Station [Rail] – A place designated for the purpose of loading and unloading passengers.

Switch, Track [Rail] – a pair of switch points with their fastenings and operation rods providing the means for establishing a route from one track to another.

System – A composite of people, procedures and equipment operating in a specific environment to accomplish a specific operation or task.

System Safety – The application of operating, technical, and management techniques and principles to the safety aspects of a system throughout its life to reduce hazards to the lowest level possible through the most effective use of available resources.

System Safety Analysis – A formalized method of identifying and eliminating or controlling system hazards. (WMATA)

System Safety Engineering – The application of scientific and engineering principles during the design, development, manufacture and operation of a system to meet or exceed established safety goals.

System Safety Management – An element of management that defines the System Safety Program requirements and ensures the planning, implementation and accomplishment of system safety tasks and activities consistent with the overall WMATA requirements. (MIL-STD 882)

Terminal [Bus] – The end of a route where a bus will wait until its scheduled return trip. (WMATA)

Third Rail [Rail] – A rail mounted on insulators alongside the running rail that provides traction power for train operation.

Train [Rail] – A consist of one or more pairs of rail vehicles combined into an operating unit.

Train Identification [Rail] – A method of identifying trains using information such as train number, destination, length, or a combination of these elements. This may be accomplished automatically for such functions as routing.

Train Operator [Rail] – That person on board a train having direct and immediate control of the movement of a train.

Train Car, Rail, Rapid, **[Rail]** – An electrically propelled passenger carrying rail vehicle characterized by high acceleration and braking rates for frequent stops, and fast loading and unloading.

Transit System Fail-Safe – The integration of the design, procedures, people and all other elements of a transit system using the principles of fail safety and system safety in such a manner that equipment failures or personnel errors, or combinations of both, must not result in an increased hazard level.

Tripper [Bus] – Scheduled work for an operator whose total pay time is less than that specified for a regular run. (WMATA)

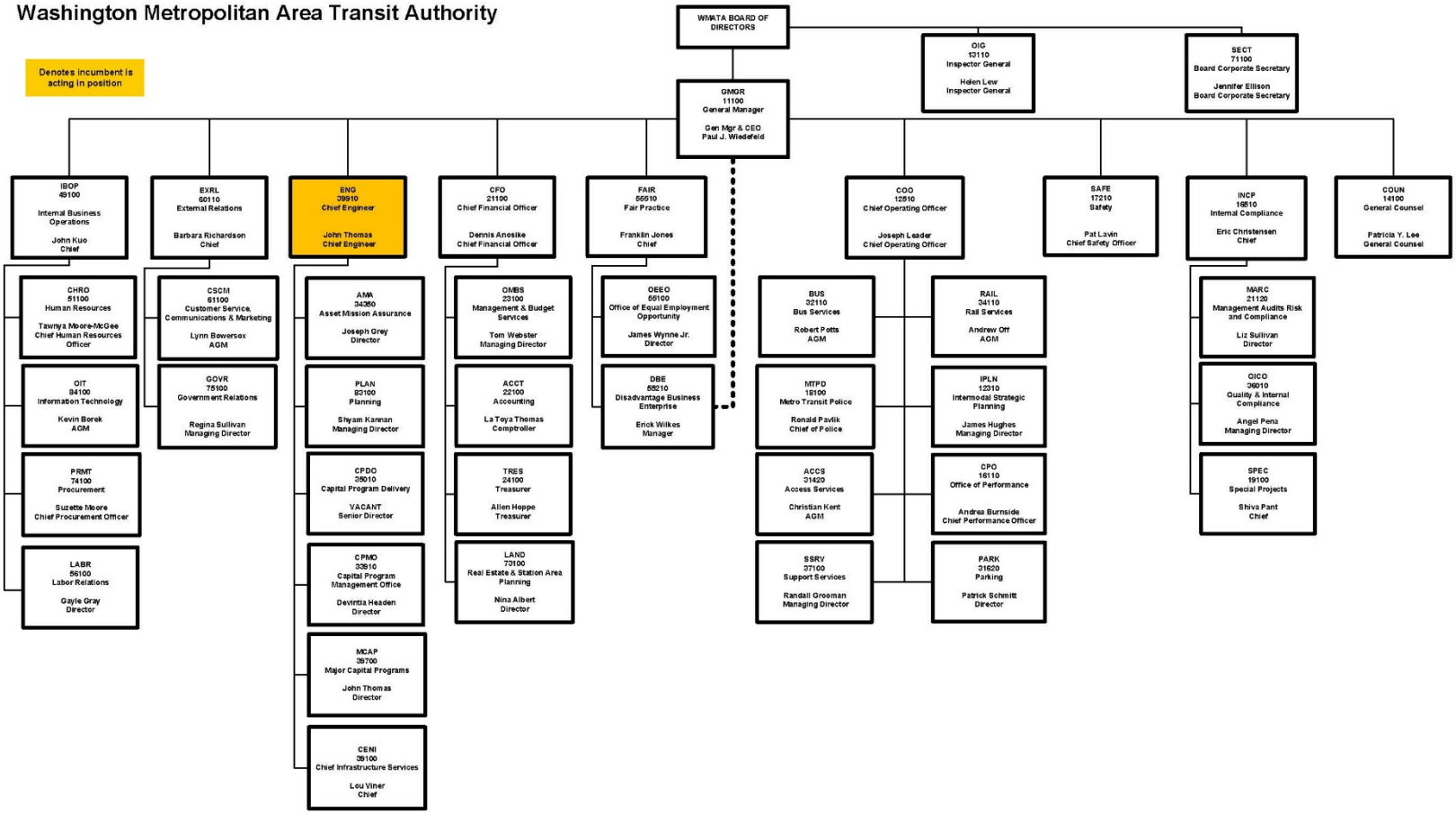
Turnout [Rail] – An arrangement of a switch and frog with closure rails by means of which trains may be diverted from one track to another. (FTA)

Unsafe Condition – Any condition that endangers human life or property.

Vital Function – A system, subsystem, equipment or component that provides a function critical to safety.

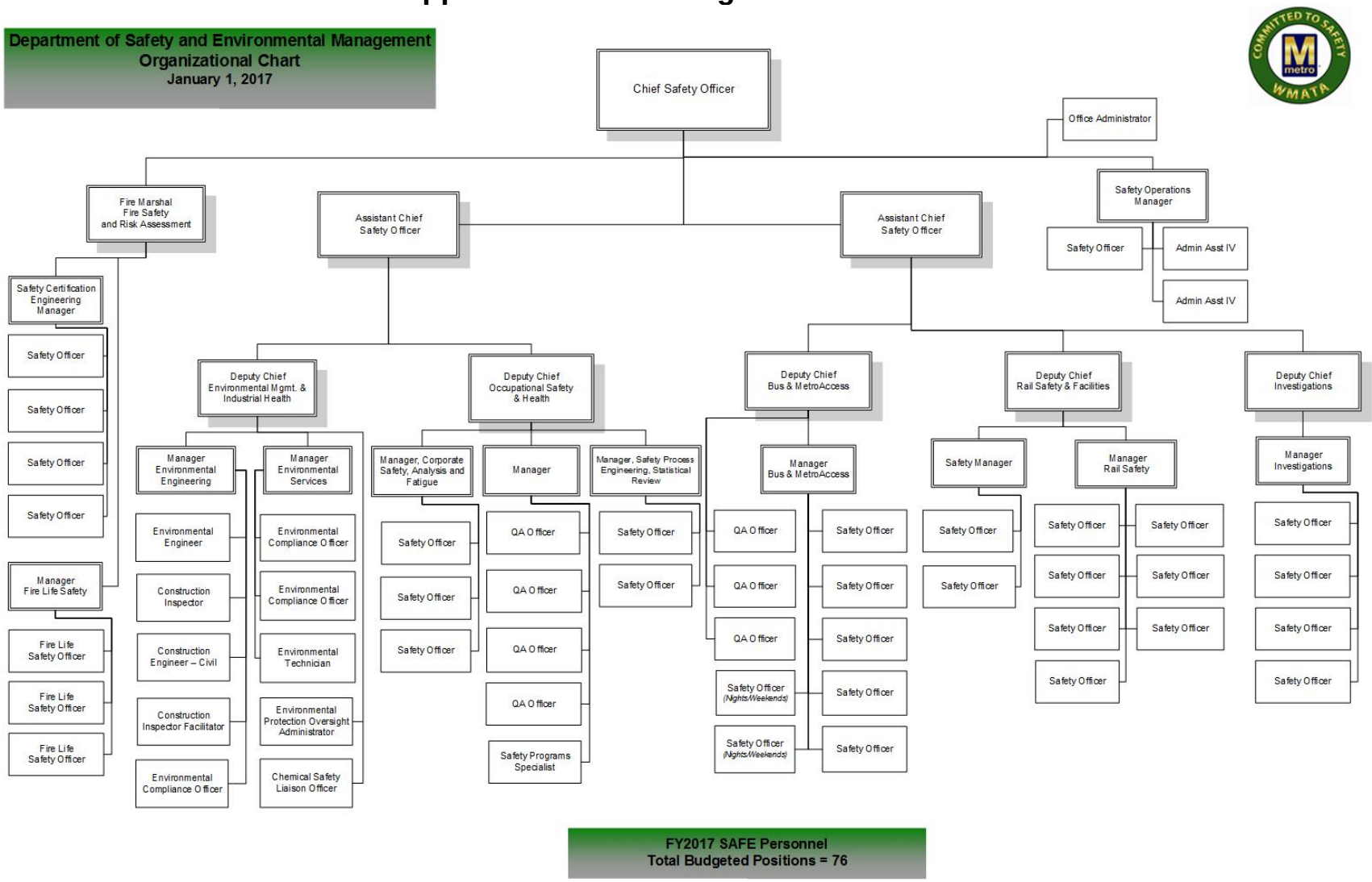
Yard, Storage [Rail] - A system of tracks within defined limits for making up trains and storing transit rail vehicles. (FTA)

Appendix D - WMATA Organization Chart



Last updated: 2/6/2017

Appendix E - SAFE Organization Chart



Federal Transit Administration

FTA Safety Oversight of WMATA

Version 1.7, dated September 2, 2016

Oversight and Surveillance Plan

Prepared by:
FTA WMATA Safety Oversight

U.S. Department of Transportation
Federal Transit Administration

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Version History

Version	Description	Author	Date
1.0	Document draft	FWSO	1/5/2016
1.1	Document draft – updated to clarify two (2) notification thresholds and to outline coordination requirements with NTSB on accident investigations	FWSO	1/19/2016
1.2	Document draft – updated to reflect new guidance regarding required safety events and to amend the Safety Event Notification Form	FWSO	1/25/2016
1.3	Document draft – updated to reflect clarifications regarding grant oversight	FWSO	1/30/2016
1.4	Document draft – updated to require immediate telephone notification for red signal overruns and to clarify a few other reporting thresholds	FWSO	2/16/2016
1.5	Updated to address last round of comments from TOC and WMATA on Document Draft, Version 1.3	FWSO	4/12/2016
1.6	Update FWSO Org Chart	FWSO	4/18/2016
1.7	Updated to reflect recent Safety Directives and Activities and FTA's Public Transportation Safety Program Final Rule	FWSO	9/02/2016

Introduction

The U.S. Congress granted the Federal Transit Administration (FTA) the authority to oversee the safety of public transportation with the passage of the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012. Previous to this, Congress authorized transit safety oversight at the State level beginning with the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, pursuant to the National Transportation Safety Board's (NTSB) recommendation in a report entitled Safety Study: Oversight of Rail Rapid Transit Safety. MAP-21 built on the State Safety Oversight (SSO) model by strengthening requirements at the State level, and including FTA as the federal overseer for the first time.

In 2015, Congress strengthened FTA safety oversight with the Fixing America's Surface Transportation (FAST) Act, by providing explicit authority for FTA to assume direct oversight responsibilities in the stead of a non-functioning SSO agency (SSOA), on a temporary and expedient basis, and clarifying FTA's ability to withhold FTA financial assistance or direct the use of federal funding for safety purposes. With the FAST Act, Congress tasked FTA with taking over safety oversight from an SSOA in limited circumstances – where immediate action is needed – and provided enforcement tools for FTA to use in those circumstances. For the long term, safety oversight is vested in state oversight agencies that can oversee the many unique rail transit operations within their jurisdictions. With WMATA, FTA is fulfilling the short-term, immediate need for strong oversight with its temporary role as a state safety oversight agency, while at the same time requiring the development of an effective permanent safety oversight agency.

On October 9, 2015, Transportation Secretary Anthony Foxx instructed the Federal Transit Administration (FTA) to temporarily assume the responsibilities of the Washington Metropolitan Area Transit Authority's (WMATA's) SSO agency, the Tri-State Oversight Committee (TOC). Under Safety Directive 16-1, issued on October 26, 2015, FTA assumed lead responsibility from the TOC for safety oversight of Metrorail, identified the responsibilities the TOC must perform at FTA's direction, and identified the activities for which FTA will be primary lead to achieve compliance with current federal law and regulations related to the rail transit State Safety Oversight Program.

FTA will ensure and verify that WMATA implements the 91 corrective actions required in Safety Directive 15-1 issued by FTA in June 2015, as well as more than 215 other corrective actions previously required by the TOC, but still unfulfilled by WMATA, some dating as far back as 2008. On December 15, 2015, FTA issued Safety Directive 16-2 to WMATA, requiring them to also address the TOC's open findings. In August 2016, FTA also issued three other Safety Directives on Track Integrity (16-3), Stop Signal Overruns (16-4) and Vehicle Securement (16-5). Additional Safety Directives will be forthcoming to address findings from FTA investigations and audits.

As specified in this *Oversight and Surveillance Plan for WMATA*, FTA will conduct on-the-ground inspections, lead accident investigations as warranted, and work to close out existing open accident investigation reports. FTA's role is temporary and will continue only until the Commonwealth of Virginia, the District of Columbia, and the State of Maryland stand up a new, fully functioning SSO agency. The three jurisdictions are working with the Metropolitan Washington Council of Governments (MWCOG) to coordinate legal, financial, and staffing strategies and actions to create this new oversight agency

On February 8, 2016, FTA informed the Commonwealth of Virginia, the District of Columbia, and the State of Maryland that, by no later than February 9, 2017, or within one year of the letter's issuance, this new SSO agency must be eligible and apply for and receive FTA certification. Pursuant to 49 U.S.C. § 5329(e)(8)(C), should the jurisdictions fail to meet these terms, FTA may withhold Section 5307 formula funds and may take other necessary and appropriate action. The FTA also continues to believe that the jurisdictions' daily involvement in the current oversight of Metrorail will prepare the new SSOA to more quickly and more effectively assume oversight responsibilities for WMATA.

On August 18, 2016, to assist with the transition, FTA withheld up to $900,000 from the 49 U.S.C. § 5329(e) funds allocated to the three jurisdictions for WMATA oversight to hire contractors to participate in FTA's ongoing efforts, including inspections, investigations, and incident response. These contractors will gain experience and training for appropriate safety oversight procedures that will be critical to the new SSOA once it is established. The FTA will begin the process to transfer these safety oversight funds immediately. Any funds not used by FTA will be made available to the jurisdictions for future SSOA purposes.

Purpose

FTA has three primary goals in its direct safety oversight of the WMATA's Metrorail system: help WMATA improve its safety performance, ensure and verify that WMATA implements corrective actions, and assist local jurisdictions in creating of an effective SSO agency responsible for daily safety oversight of Metrorail as required by Federal law.

FTA's *Oversight and Surveillance Plan for WMATA* defines responsibilities, requirements, processes, and activities to implement FTA's direct safety oversight of the WMATA Metrorail system and to ensure that these goals are achieved. This plan focuses on six (6) key elements:

1. FTA assumes TOC's overall leadership role for safety related to SSO program regulations, oversight, and inspection activities. This spans the full range of responsibilities under the current 49 CFR § 659 regulations as well as those established under the Moving Ahead for Progress in the 21st Century Act (MAP-21), the Fixing America's Surface Transportation Act (FAST), and 49 CFR § 674.

2. TOC continues to exist and performs activities under the oversight and direction of FTA as detailed in Safety Directive 16-1. In addition, current TOC staff and Federal SSO grant resources will be brought to bear to carry out these activities.
3. FTA will ensure WMATA's implementation of corrective actions to improve safety and verify that the work is completed. At the core of FTA's safety responsibilities are the 78 rail-related required actions arising from the SMI and Safety Directive 15-1 and the 217 TOC-issued safety findings addressed by the FTA in Safety Directive 16-2. The FTA will continue to issue required actions in response to safety concerns and findings from investigations, inspections, audits, or other activities.
4. FTA's oversight responsibility also includes heightened on-the-ground inspection activity to ensure implementation of required actions. FTA will conduct additional inspections on a proactive, and at times unannounced, basis to address safety concerns brought to FTA's attention.
5. FTA retains the right to investigate any and all events that to varying degrees threaten or otherwise compromise safety of WMATA passengers or employees. In those cases where the National Transportation Safety Board (NTSB) elects to lead such investigative efforts and when granted party status by the NTSB, FTA will participate as a party to the investigation. However, FTA retains the right to conduct relevant additional safety examinations in parallel as circumstances may warrant as long as they do not interfere with the NTSB investigation. In addition, FTA will assume from TOC all open accident investigation reports for review, action, and final closeout.
6. Finally, FTA will exercise its authority under 49 U.S.C. § 5329(g) to direct the use of certain Federal funds received by WMATA to correct safety deficiencies identified in open and outstanding required actions under any Metrorail CAP or for other relevant safety actions as determined by FTA. This FTA-directed use of WMATA Federal funding will apply to all FTA administered grant programs for activities related to rail transit investments.

The FTA-WMATA Safety Oversight (FWSO) Office will lead all oversight, inspection, and enforcement activities at WMATA. FWSO will use FTA's expanded enforcement authority to ensure action to address safety deficiencies, issues, and concerns revealed through on-site inspections, investigations, and audits. The FWSO organization chart is available in the appendix.

FWSO Oversight Processes, Activities and Tools

To fulfill FTA's responsibilities under 49 U.S.C. § 5329 and to conduct direct safety oversight of WMATA's rail system, FWSO must establish and ensure that WMATA rail operations are conducted in accordance with regulatory requirements as well as WMATA's own standards, requirements, and procedures. This *Oversight and Surveillance Plan for WMATA*, "the Plan",

describes the processes, activities, and tools that FWSO will use to carry out this obligation at various levels within WMATA, TOC, and MWCOG as well as the Commonwealth of Virginia, District of Columbia, and State of Maryland jurisdictions.

The Plan expands beyond 49 CFR § 659 and 49 CFR § 674 and utilizes authority provided to FTA under 49 U.S.C. § 5329 to carry out enhanced safety oversight of WMATA's rail system. It contains the tools FWSO needs to develop, prioritize, and implement a safety oversight program for the WMATA Metrorail system. The safety oversight tools presented in this Plan are flexible to accommodate the diversity of operations and maintenance objectives at WMATA.

Applicability

This Plan is consistent with the applicable provisions of 49 U.S.C. § 5329.

a. The responsibilities and requirements of this Plan apply only to the WMATA Metrorail system, TOC, and MWCOG.

b. Safety oversight as used in the context of this Plan includes oversight of all aspects of WMATA rail service delivery functions – operations and maintenance – as well as programs, processes, procedures, and activities put in place by WMATA to carry out its service delivery functions and assure safety. Safety oversight as used in this Plan also includes TOC activities.

c. The information and oversight processes contained in this Plan applicable to the WMATA Metrorail system oversight may be applied to other disciplines or functional areas but will not include oversight of WMATA's Metropolitan Transit Police Department (MTPD) except in those areas related to event reporting and emergency management, preparedness, and response.

d. The "Grants Oversight" section of this Plan is applicable to WMATA, TOC, and MWCOG.

FTA Enforcement Authorities

Under 49 U.S.C. § 5329, as amended by the Moving Ahead for Progress in the 21st Century Act (MAP-21; Pub. L. 112-141, July 6, 2012) and the Fixing America's Surface Transportation (FAST) Act (FAST Act; Pub. L. 114-94, December 4, 2015), FTA is directed to establish a comprehensive Public Transportation Safety Program to strengthen the safety performance of the public transportation industry. This comprehensive program includes a National Public Transportation Safety Plan; a training and certification program for Federal, State, and local transportation agency employees with safety oversight responsibilities; public transportation agency safety plans; a strengthened SSO program; and a new framework for Federal enforcement and investigative authorities to directly oversee the safety of the public transportation industry.

The statute also vests the Secretary of Transportation and his designee, the FTA Administrator, with explicit authorities to carry out the Public Transportation Safety Program and to take enforcement actions. 49 U.S.C. 5329(f) provides FTA with the authority to inspect and audit a public transportation system; make reports and issue directives with respect to the safety of a public transportation system or the public transportation industry generally; issue subpoenas and take depositions; require the production of documents; prescribe recordkeeping and reporting requirements; investigate public transportation accidents and incidents; enter into and inspect the equipment, rolling stock, operations and relevant records of a public transportation system; and issue regulations.

49 U.S.C. 5329(g) authorizes FTA to take enforcement actions against a recipient of Federal financial assistance under 49 U.S.C. chapter 53 that is noncompliant with Federal transit safety law, through issuing directives, requiring more frequent oversight, imposing more frequent reporting requirements, requiring that chapter 53 funds be spent to correct safety deficiencies before those funds are spent on other projects, and withholding funds from a recipient.

49 U.S.C. 5329(h) authorizes FTA to impose restrictions and prohibitions on a recipient's operations, where FTA determines that an unsafe practice or condition creates a substantial risk of death or personal injury.

As amended in the FAST Act, 49 U.S.C. § 5329(e)(8) grants FTA the authority to temporarily assume the administration of a State's SSO Program after making a determination that the program is not being carried out in accordance with the requirements of Section 5329; is inadequate to ensure enforcement of Federal safety regulations; or is incapable of providing adequate safety oversight consistent with the prevention of substantial risk of death, or personal injury. If a State fails to correct such deficiencies, FTA may withhold up to 5 percent of Section 5307 funds required to be appropriated for use in the State or an urbanized area.

On August 11, 2016, the Federal Transit Administration (FTA) published a final rule for the Public Transportation Safety Program, which provides the overall framework for FTA to monitor, oversee, and enforce safety in the public transportation industry, as found in Federal Public Transportation law (49 U.S.C. §5329). The final rule details the enforcement actions available to FTA when addressing a public transportation provider that is not in compliance with Federal public transportation safety law.

Roles and Responsibilities

This section describes the general roles and responsibilities for FTA, TOC, MWCOG, and WMATA. Specific responsibilities related to event notification, investigation, CAP management, and safety risk management are detailed in those individual sections of this plan. While FTA has empowered FWSO to carry out WMATA safety oversight duties, there may be occasions when FTA may take an action outside of the FWSO office, such as those actions related to enforcement authorities detailed in the previous section. In general:

- FWSO will implement this Plan and is responsible for its maintenance and updating.
- FWSO will oversee the safety of the WMATA rail system.
- FWSO will conduct inspections, investigations, audits, examinations, and testing of WMATA's equipment, facilities, rolling stock, and operations; make reports and issue directives; impose reporting requirements; exercise other FTA oversight authorities; and withhold or direct the use of Federal financial assistance to WMATA as necessary and appropriate.
- At all times, FTA will retain lead responsibility for ensuring WMATA's development of CAPs in response to FWSO-approved findings made by FWSO or TOC.
- FTA may task TOC to track and monitor WMATA's performance in completion of any required action under the CAP or any matter related to an FTA Safety Directive to WMATA.
- As available and appropriate, TOC will make its staff and consulting resources available for overseeing WMATA's completion of the required actions under the CAP.
- TOC remains responsible for compliance with the SSO regulations at 49 CFR § 659. Until the District of Columbia, State of Maryland, and Commonwealth of Virginia establish a SSO program that FTA certifies in accordance with 49 U.S.C. § 5329(e), FTA will provide leadership and general direction to TOC to ensure all current 49 CFR § 659 regulations are met.
- Under 49 U.S.C. § 5329(e)(6), FTA awards Federal financial assistance to MWCOG for the purpose of safety oversight of the WMATA Metrorail system. MWCOG acts as the recipient of this Federal funding for administrative purposes only; the District of Columbia, the State of Maryland, and the Commonwealth of Virginia each provide one-third of the local match to this Federal funding, and the three jurisdictions direct the activities of the TOC, through the staff and the consulting resources they provide the TOC. A certain portion of this Federal financial assistance will continue to be allocated for developing a State Safety Oversight Program compliant with 49 U.S.C. § 5329(e).

- MWCOG is responsible for ensuring grants apportioned under the SSO Grant Program are distributed for activities in accordance with the approved Certification Work Plan and grant application.
- WMATA is responsible for meeting requirements established by this Plan, 49 CFR § 659, and any findings and CAPs established through FWSO oversight activities.

FWSO Oversight Program

Overview

Safety oversight is a way to be aware of and understand the state of safety at WMATA as well as to identify shortcomings and concerns with respect to operations and maintenance of the WMATA Metrorail system that could have safety implications and ensure that they are resolved. FWSO's oversight program contains routine and proactive oversight activities as well as reactive oversight activities. FWSO will document its routine oversight activities in its *Annual Oversight Activities Forecast*, discussed later in this Plan.

In general, FWSO's routine safety oversight:

a. Is planned, systematic, and scheduled, being characterized by repetitive cyclic oversight activity

b. Is performance-based, prioritized by information and data analysis, as well as compliance-based

c. Maintains ongoing assurance of the adequacy and effectiveness of WMATA Metrorail system performance

d. Includes assessments, reviews, evaluations, inspections, tests, checks, surveillances, audits, personnel interviews, and operational awareness activities (e.g., work observation, document reviews, meeting attendance and participation, and routine interaction with WMATA workers and management)

e. Documents all results in a database to support data analysis, trending, and prioritization of oversight activities

FWSO's reactive safety oversight is primarily conducted in response to an event, condition, special request, or emerging safety issue.

Examples are—

a. Follow-up on an allegation or complaint

b. Response to an incident, accident, or unusual event impacting safety

c. Investigation of an employee concern

d. Technical assistance from subject matter experts in response to an event, condition, or request

e. Diagnostic evaluation of declining operational performance

f. Testing, subpoenas, and other activities to obtain necessary facts related to a condition or event

Because of its unanticipated nature, reactive safety oversight is not included in the *Annual Oversight Activities Forecast*. The activities used by FWSO to conduct reactive safety oversight may often be the same activities conducted for routine safety oversight, such as inspections, audits, etc. The results of reactive safety oversight are reported and tracked in FWSO matrices and data systems, and used to refine or prioritized routine oversight activities.

Meetings

FWSO will conduct a series of meetings to support coordination among FWSO, WMATA, TOC, and MWCOG, with the purpose of sharing or updating each party on oversight activities, addressing/elevating safety identified concerns, and/or resolving any outstanding items.

Relevant points-of-contact for each party will receive meeting invitations, including date, time, and agenda items. The following meetings are anticipated:

Meeting Type	Participants	Anticipated Frequency
Annual Surveillance and Oversight Activities Forecast Meeting	FWSO, WMATA, TOC, and MWCOG	Annual
Oversight Meeting	FWSO, TOC, and MWCOG	Monthly
WMATA CAP Meeting	FWSO and WMATA	Monthly
Safety Event and Hazards Meeting	FWSO, WMATA, TOC, and MWCOG	Monthly
Oversight Status Update Teleconference	FWSO, TOC, and MWCOG	Monthly

Communication and Access

To ensure effective communication and the sharing of information, FWSO requests that WMATA provide a current organization chart and a list of contacts for each rail operating and maintenance department, office, and branch. FWSO requests that any changes to this information be included as part of the weekly submittals made to address FTA's SMI findings.

As specified in MAP-21 and reiterated in Safety Directive 16-1, FTA retains the right to inspect and copy any data, forms, or reports WMATA collects. FTA therefore expects that WMATA management will ensure FWSO's full access to all information and reports generated to monitor the safety, status, and performance of the Metrorail system, including its operations and maintenance, as well as to the databases used to manage this information.

FWSO also requires WMATA's leadership to alert all WMATA personnel to FTA's rights of access to the WMATA Metrorail system and to reports, data, and databases. The FTA expects

that WMATA management, and any personnel representing WMATA at a Metrorail facility, location, or accident scene, will accept FTA's authority to access WMATA property and records; to conduct inspections, investigations, examinations, and audits; to interview personnel; to require reports and data; to test and examine equipment, infrastructure, and vehicles; and to subpoena records and testimony. This right to access is memorialized in WMATA Temporary Order T-16-06; Memorandum: Federal Transit Administration Inspections; and the FTA-WMATA Safety Protocol document, dated August 2016. These documents are available in the appendix. Also, depending on the circumstances of a particular investigation or inspection, the FTA may request to impound or take possession of a specific item, piece of equipment, or vehicle for independent testing and analysis.

FWSO also expects to receive courtesy copies on daily, weekly, and monthly reports generated by departments and branches within WMATA's Office of Rail Transportation (RTRA), Rail Operations Control Center (ROCC), Maintenance Operations Center (MOC), Car Maintenance (CMNT), Track and Structures (TRST), System Maintenance (SMNT), and other departments and branches within Transit Infrastructure and Engineering Services (TIES), as well as reports from WMATA's Department of Safety and Environmental Management (SAFE). FTA also will request remote access to several WMATA databases, including WMATA's Safety Measurement System (SMS), the General Orders and Track Rights System (GOTRS), and WMATA's Maximo, Documentum, and Enterprise Learning Management (ELM) systems.

Other sections in this plan outline FWSO's requirements for communication of critical information between WMATA, FWSO, TOC, and MWCOG, including—

a. The reporting of safety events
b. The submission of preliminary and final event investigation reports and status reports
c. The submission of corrective action plans, progress reports, and requests for closure
d. The submission of safety risk management information, data and analysis

Information Management

Through FWSO oversight activities, as well as through prior TOC and WMATA activities, a significant number of documents have been and will continue to be generated. In order to ensure all documentation is collected, maintained, controlled, and easily accessible to authorized individuals, FTA is utilizing an FWSO-specific site within its SharePoint system, named TransPort. FWSO has developed a separate *Document Management Plan*, to be updated as necessary, which documents the current TransPort structures and configuration; how documents are collected and processed into the system; as well as the mechanisms in place to ensure consistency, integrity, and appropriate access.

Accident Investigation

Other sections of this plan outline FWSO's roles and responsibilities for accident investigations. Specifically, FWSO will—

a. Establish safety event reporting criteria

b. Receive reports of safety events meeting these criteria within specified timeframes

c. Participate in, review, and/or lead investigations of safety events meeting specific criteria

d. Receive, review, and approve preliminary and final event investigation reports and status reports, to include probable cause, contributing factors, and general findings

When leading independent accident investigations, or reviewing and approving reports completed by WMATA, FWSO personnel will follow designated procedures and complete required forms and checklists. These processes are specified in FWSO's General Manual.

FWSO personnel will make every effort to comply with WMATA rules and procedures while in the Metrorail working environment. To ensure safe and timely access to accident sites, the FTA anticipates WMATA's assistance in making training, escorts, RWP protection, parking, and equipment storage available as necessary to ensure conformance with Metrorail safety rules and standard operating procedures. FTA policy requires its personnel to have and use personal protective equipment and that, to the extent possible, FTA's personal protective equipment meets or exceeds WMATA's safety requirements.

Dispute Resolution

Public transportation systems are subject to the Secretary of Transportation's authority to oversee the safety of those systems, in accordance with 49 U.S.C. § 5329. Pursuant to Departmental rule, 49 CFR 1.91, the Secretary's authority to enforce 49 U.S.C. § 5329 has been delegated to the Federal Transit Administrator. For required actions, FTA provides WMATA with opportunity to petition for special approval to take actions not in accordance with FTA's required actions or to petition for reconsideration.

Such petitions shall be submitted to the Acting Administrator, who shall be authorized to dispose of those requests. In reviewing any petition for special approval, the Acting Administrator shall grant petitions only in which WMATA has clearly articulated an alternative action that will provide, in the Acting Administrator's judgment, at least a level of safety equivalent to that provided by compliance with FTA's required action.

FWSO Safety Oversight Standards

Introduction

Currently, 49 CFR § 659 regulates the safety oversight of rail transit agencies, including WMATA. Part 659 requires TOC to develop and distribute a Program Standard that governs the conduct of state safety oversight and the requirements rail transit agencies must have in place to comply with the state safety oversight program. Through its FWSO, FTA will bring to bear additional activities under its MAP-21 authority in the provision of oversight of WMATA. This includes the replacement of key elements of TOC Program Standard sections 8, 9, 10, and 11.

These *Safety Oversight Standards* set forth FTA's new expectations for safety oversight of WMATA in the following areas:

- Safety Event Notification
- Safety Event Investigation
- Corrective Action Plans
- Safety Risk Management

These standards establish requirements and instructions for WMATA; address general roles and responsibilities of WMATA, FTA, and TOC; and identify expectations as they relate to each of the above-identified areas. These standards do not address the ongoing TOC responsibility for oversight of the Dulles Corridor Metrorail Project Phase 2.

FTA will develop additional Oversight Standards to address other oversight requirements and to augment or replace other sections of the TOC Program Standard.

FWSO-OS-1 Safety Event Notification

This section describes the FWSO requirements for WMATA notification and reporting of rail safety events (includes security events as indicated) to FTA.

Purpose

1. This section establishes a standard set of instructions and criteria for WMATA to follow when notifying and reporting rail safety events to FWSO.
2. This section provides prescribed forms to be utilized by both WMATA and FWSO for rail safety event notification and reporting.
3. This section replaces Section 8 of TOC's Program Standard as it relates to WMATA's responsibility for the notification of accidents, incidents, and hazards to TOC.

General Responsibilities

1. WMATA is responsible for following the requirements outlined in this oversight standard and must make notifications of safety events as per instructions provided herein.
2. FWSO is responsible for establishing safety event notification requirements, overseeing WMATA's compliance with the requirements set forth in this oversight standard, and making the determination of whether or not FWSO will participate in or lead the safety event investigation.
3. FWSO is responsible for following up with WMATA to obtain additional data and information on the safety event, tracking, and monitoring of this data and information.

General Requirements

1. WMATA must identify the department/individual responsible for rail safety event notification and reporting.
2. For the purposes of WMATA notifications, the phrase "safety event" refers to those items listed in the Safety Event Notification Matrix below.
3. WMATA shall notify the USDOT Crisis Management Center (CMC) at 202-366-1863 of events that meet the "immediate" notification thresholds. WMATA may use FWSO's Safety Event Notification Form (E1-F3), located in Appendix A, as a guide regarding the type of information to provide to the CMC.
4. Within the time frame specified in the Safety Event Notification Matrix below, WMATA must also email its safety event notification to FTA-WMATA@dot.gov. WMATA must include the specific safety event code and description in the email notification.

5. It is of the utmost importance that WMATA initiate the notification process immediately (as soon as possible) such that FTA is provided time to decide if it will launch investigators to the scene.

6. FTA's Investigation Duty Officer will follow-up with WMATA for additional details as necessary and will notify WMATA and TOC immediately if FTA intends to investigate the event.

7. FTA will meet with WMATA monthly to review a summary and status of all reported safety events and document this in the Monthly Safety Event Summary. The Monthly Safety Event Summary will serve as a record of all reported safety events.

Safety Event Notification and Report Matrix

FWSO's "Safety Event Notification and Report Matrix" specifies notification criteria and timeframes based on the type of the safety event.

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
	Event Type –Notifications and Investigations required by 49 CFR § 674 *State Safety Oversight*. * Notifications to the SSO agency and FTA are required. Until the new SSO agency is in place, notifications to FWSO will meet this requirement.					
1	**Fatality** A death or suicide Confirmed within 30 days of a reportable event. Excludes deaths in or on transit property that are a result of illness or other natural causes.	Required	Required	Required	Required	Required
2	**Serious Injury** a. Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received, b. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose), c. Causes severe hemorrhages, nerve, muscle, or tendon damage, d. Involves any internal organ, or e. Involves second-or third-degree burns, or any burns affecting more than five percent of the body surface	Required	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
3	**Collision** A collision between a Rail Transit Vehicle on the mainline, yard or shop resulting in a fatality, serious injury or property damage and occurring with, or at any of the following: a. Another rail transit vehicle b. Another vehicle or equipment c. A collision at a Grade crossing d. A collision with an object e. A collision with a person f. An Animal	Required	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
4	**Evacuation** Persons withdrawn or removed from rail transit vehicles or facilities due to life safety reasons and hazardous or potentially hazardous conditions such as: a. Self-Evacuations to a location that may put passengers or patrons in imminent danger (such as the rail-right-of way). b. Security reasons including but not limited to arson; suspicious packages and objects; bomb threats and Chemical/Biological/Nuclear and Radiological releases. ***Life Safety Reason:*** *A situation such as a fire, the presence of smoke, fuel leak, electrical or other hazard, that constitutes an imminent danger to passengers, employees, contractors, or other persons.* ***Note:*** *Reporting is not required for the offloading of passengers at a platform for a mechanical failure, or transfer of passengers to a rescue train unless there was imminent danger to passengers.*	Required	Required	Required	Required	Required
5	**Derailment** Derailment of a Rail Transit Vehicle or Self Propelled Roadway Maintenance Machine (RMM) at any location, at any time, whatever the cause.	Required	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
6	**Runaway Vehicle** Runaway Rail Transit Vehicle or Self Propelled Roadway Maintenance Machine (RMM) on the mainline or yard, including: a. Runaway or Uncontrolled vehicle movement (uncontrolled roll back, operator incapacitated or asleep)	Required	Required	Required	Required	Required
7.	Any safety event for which WMATA notifies the National Response Center (NRC) or the National Transportation Safety Board (NTSB)	Required	Required	Event Based Requirement	Event Based Requirement	Event Based Requirement
8.	Unintended movement of a Class 1 (revenue) or Class 2 (non-revenue) vehicle on the mainline or in a yard, including: a. Unintended vehicle movement against the normal flow of train traffic b. The unintended or mistaken direction of vehicle movements that are conflicting or opposing to other traffic c. Overriding a safety device or fail safe system and moving vehicle without permission or direction	Required	Required	Required	Required	Required
9.	Red signal violation / overrun	Required	Required	Required	Required	Required

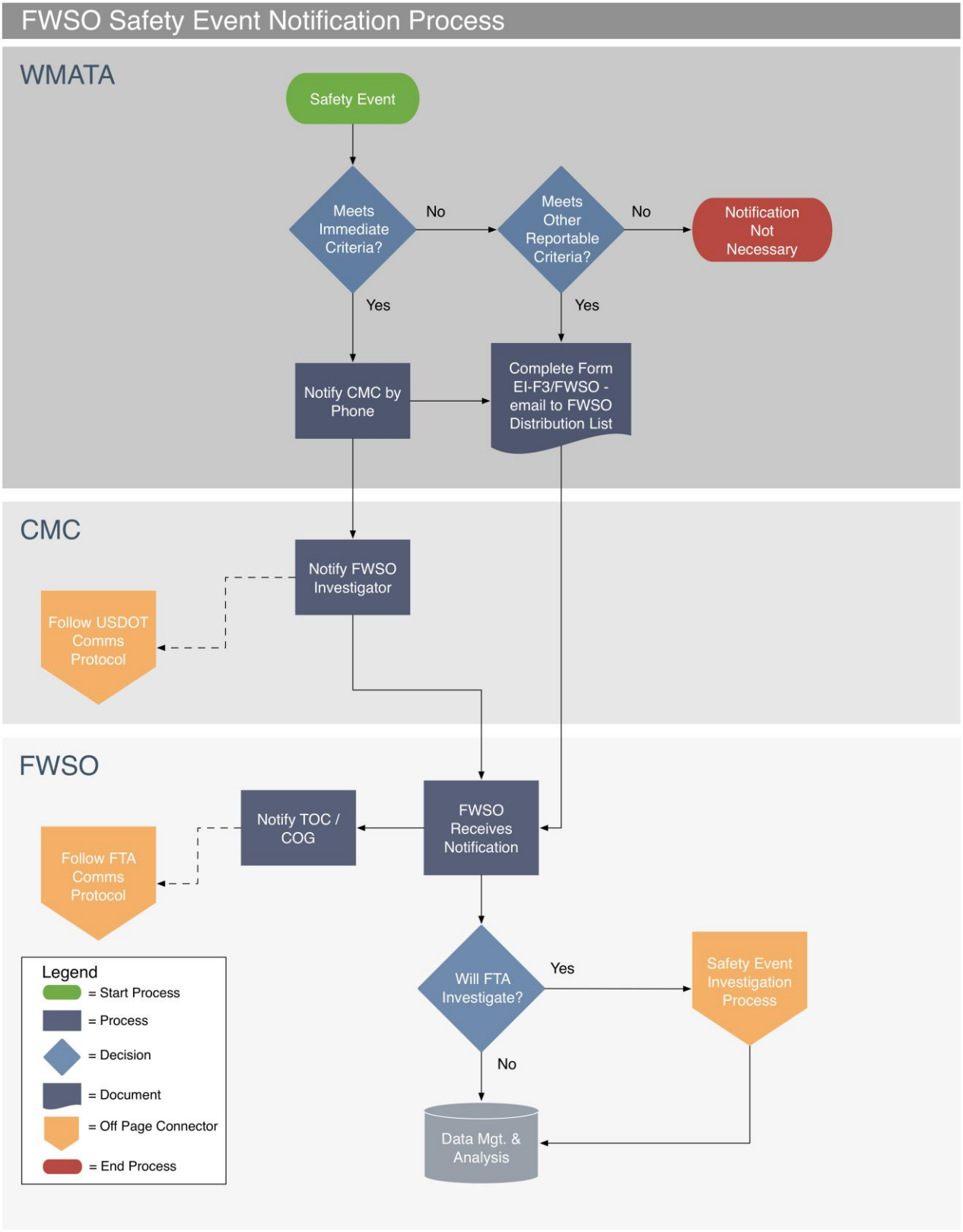
Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
10.	Unauthorized Class 1 or Class 2 Vehicle encroachment or overrun into a protected work zone	Required	Required	Required	Required	Required
11.	Signal System Failure (False Proceed /Track Circuit Failed Clear/Total or Partial System failure requiring manual block operations)	Required	Required	Required	Required	Required
12.	Operating over an improperly aligned or damaged switch (switch run-through) on the mainline or yard	None	Required	Upon Request	Upon Request	Upon Request
13.	Operator removal from Class 1 vehicle for rule violation such as: a. Incapacitated such as drug/alcohol, fatigue b. Train over speeding, failure to stop c. Use of electronic device	None	Required	Upon Request	Upon Request	Upon Request
14.	A collision with a person that <u>does not</u> result in a fatality serious injury or damage	None	Required	Upon Request	Upon Request	Upon Request
15.	Trainline Door Event a. Doors open during train movement b. Doors open on wrong side or off platform c. Un-commanded door open	None	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
16.	Fire/Smoke resulting from a Class A (ordinary combustibles); Class B (flammable or combustible liquid or gas); Class C (electrical fires); or Class D (combustible metals) occurring on or in: a. A Class 1 or Class 2 Transit Vehicle b. Transit Rail Facility, to include all or any portion of a building or structure including roads, walks, garages and parking lots c. Tunnel or Right of Way d. Fire related to power jumper cables, track feeder cables, transition and expansion cables (Report Required)	None	Required	Upon Request	Upon Request	Upon Request
17.	Speed restriction or track closure due to infrastructure damage or failure from a deficiency in the state of good repair or extreme weather conditions a. Wide or Narrow Gauge b. Broken/Cracked Rail c. Sun Kinks	None	Required	Upon Request	Upon Request	Upon Request
18.	Hazardous condition that, without immediate mitigation, consequences could reasonably include a fatality, serious injury, or requires stopping the current operation or activity	None	Required	Upon Request	Upon Request	Upon Request

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
19.	Other actions or malfunctions that could have resulted in a fatality, serious injury, or requires stopping the current operation or activity, for example: a. Violation of posted speed or speed restrictions b. Train Rollback while operating in Revenue Service exceeding design specifications c. Unintentional uncoupling of trains on the mainline	None	Required	Upon Request	Upon Request	Upon Request
20.	Fallen or dragging equipment from a rail vehicle	None	Required	Upon Request	Upon Request	Upon Request
21.	Person falls onto right-of-way	None	Required	Upon Request	Upon Request	Upon Request
22.	Broken or missing safety-critical equipment, infrastructure, or systems that could result in a fatality, serious injury, or major disruption in service	None	Required	Upon Request	Upon Request	Upon Request
23.	Incidents/occurrences involving individuals working in the transit agency-controlled right of way	None	Required	Upon Request	Upon Request	Upon Request
24.	Any incident for which Metro Transit Police Department (MTPD) also notifies the Transportation Security Operations Center (TSOC)	None	Required	Upon Request	Upon Request	Upon Request

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
25.	Any operation or action not listed above that is noteworthy or can be perceived as an unsafe operation or violation of operating practices	None	Required	Upon Request	Upon Request	Upon Request

Safety Event Notification Process



FWSO-OS-2 Safety Event Investigation and Reporting

This section describes the FWSO standards for 1) ensuring that thorough investigations of safety events at WMATA are conducted to determine the causal and contributing factors for the purpose of mitigating safety risk and/or preventing recurrence and 2) FWSO's review and approval of WMATA investigation reports.

Purpose

1. This section establishes a standard set of instructions for WMATA to follow when investigating, participating in investigations, and reporting on investigations.
2. This section provides instructions for WMATA should the FTA or NTSB lead a safety event investigation.
3. This section replaces Section 9 of TOC's Program Standard as it relates to the investigation and reporting of accidents and incidents.

General Responsibilities

1. WMATA is responsible for following the requirements outlined in this oversight standard.
2. WMATA has primary responsibility for safety event investigations using WMATA investigation procedures that have been reviewed and approved by FWSO.
3. WMATA is responsible for preparing and submitting preliminary, draft, and final reports as specified in this Plan.
4. FWSO is responsible for establishing safety event investigation and reporting requirements and ensuring WMATA's compliance with the requirements set forth in this Plan.
5. FWSO is responsible for following up with WMATA to obtain additional data and information on the safety event investigations.
6. FWSO will notify WMATA if FTA or FWSO intends to conduct an independent investigation or participate in WMATA's investigation.
7. TOC may participate in WMATA safety event investigations, but must notify FWSO of this intent prior to participation.
8. FWSO reserves the right to take witness statements, impound equipment, and conduct tests and/or inspections as necessary.

9. FWSO will maintain the confidentiality of accident investigations and incident reports to the maximum extent permitted under Federal law, including the nine exemptions under the Freedom of Information Act.

10. FWSO will ensure that all facts, conditions, and circumstances leading or contributing to the safety event are recorded and analyzed, and that WMATA takes action to prevent similar events.

11. FWSO will participate in any safety event investigation conducted by the NTSB.

12. FWSO will identify WMATA safety accidents, incidents, or occurrences beyond those required as described in this Plan that require FWSO review and approval and notify WMATA within one week of the accident, incident, or occurrence.

13. FWSO will coordinate with TOC and WMATA during and after safety event investigations, including the discussion of analysis and findings, as necessary.

14. FWSO may, as necessary and under formal communication, direct TOC to support requirements identified in this section. In such cases, FWSO will provide TOC all necessary information and records.

General Requirements

1. WMATA must investigate all safety events meeting notification criteria established in FWSO-OS-1 using FWSO-approved WMATA investigation procedures.

2. WMATA must provide a Preliminary Report, Draft Safety Event Investigation Report, and Final Safety Event Investigation Report for all safety events meeting the criteria specified in FWSO-OS-1 to FWSO with a courtesy copy to TOC within the timeframes specified in the same.

3. WMATA must provide information and status updates on investigations as specified in this oversight standard.

4. WMATA must document its investigation activities as specified in this Plan

5. In the event that the NTSB leads the investigation, WMATA shall be guided by the investigation requirements in accordance with 49 CFR 831.11, which explains the roles of parties as designated by the NTSB during an investigation.

6. In the event that FTA/FWSO leads or participates in the investigation, WMATA must provide escorted access to the scene of the investigation; provide scene securement as directed; and provide access to employees, witnesses, equipment, records, data, and information requested by FTA/FWSO.

7. WMATA must address findings from safety event investigations, regardless of the lead investigative agency.

8. WMATA must submit its investigation procedures to FWSO for review and approval, and must resubmit the procedures for approval upon making changes or updates.

9. FWSO will review WMATA's investigation procedures and provide comments and/or required changes. WMATA will make any required changes and resubmit to FWSO for final approval.

10. FWSO will transmit a letter to WMATA upon approval of WMATA investigation procedures.

Safety Event Investigation Documentation and Reporting Requirements

1. As defined in FWSO-OS-1, WMATA must complete the required information in the Form EI-F3/FWSO Safety Event Notification Form as soon as is practicable, but not later than two hours after the event, and submit it to FWSO via email. WMATA must identify any interim mitigations or corrective actions put in place in order to resume service delivery, operations, or maintenance activities.

2. For each FWSO-reportable event identified as "immediate" (see the FWSO Event Report Review and Approval Requirements Matrix), WMATA must complete a Preliminary (or factual) Report and email to FWSO within three business days after the safety event. Preliminary Reports must expand on the status of any immediate or interim mitigation put in place and corrective actions taken to restore service.

3. FWSO reserves the right to request safety event investigation reports for events not meeting the "immediate" notification criteria. In these cases, WMATA will follow the same documentation reporting requirements specified below.

4. WMATA must provide monthly, unless otherwise specified by FWSO, safety investigation status updates to FWSO.

5. WMATA must submit a Draft Safety Event Investigation Report to FWSO for review within 30 days from the date of the safety event, unless FWSO approves a WMATA-requested time-extension. WMATA must copy TOC on each submittal.

    a. WMATA's draft report must address, at a minimum:

        i. Investigation activities

        ii. Analyses

        iii. Evaluation of defenses in place to prevent the event

iv. Causal and contributing factors

v. Findings

b. FWSO will review the WMATA draft report using a checklist of required report elements to ensure the minimum required elements are included.

6. If FWSO cannot approve the WMATA draft report as submitted, FWSO will transmit to WMATA any concerns or requests for revisions or additional information.

7. After WMATA has received FWSO's comments on its review of the Draft Safety Event Investigation Report, WMATA must issue its Final Safety Event Investigation Report within 30 days to FWSO for approval.

8. FWSO will review the Final Safety Event Investigation Report and issue its final approval.

9. WMATA will evaluate each finding and develop corrective actions as per FWSO's CAP standard (FWSO-OS-3).

10. FWSO, TOC, and WMATA will meet monthly to review open safety event investigations, review reports and findings, including the status reports specified in item three above, update records, and closeout investigations when possible.

11. WMATA must provide its safety event investigation status reports three calendar days in advance of the monthly meeting.

Independent NTSB, FTA, and FWSO Safety Event Investigations

1. In the event NTSB conducts the investigation:

    a. FTA, TOC, and WMATA, if granted party status, shall be guided by the investigation requirements in accordance with 49 CFR 831.11, which explains the roles of parties as designated by the NTSB during an investigation. All parties must abide by NTSB regulations and standards.

    b. FTA/FWSO, TOC, and WMATA will meet to review any findings and recommendations put forth by NTSB.

2. In the event FTA or FWSO conducts an independent investigation:

    a. WMATA must participate in the investigation and abide by FTA/FWSO investigation standards.

b. WMATA must provide access to equipment, systems, data, witnesses, employees, records, and any other items requested by FTA/FWSO in order to conduct its investigation.

c. WMATA must provide escorts as needed.

d. If FTA/FWSO identifies a condition or conditions that present imminent danger to persons or equipment, FTA/FWSO will notify WMATA immediately so that mitigations can be put in place or actions can be taken to reduce the risk of imminent danger to an acceptable level prior to resuming service delivery.

e. FTA/FWSO will provide status updates on its investigation activities to WMATA.

f. FTA/FWSO will issue to WMATA a report outlining the facts identified and documented through the course of investigation for review and comment on factual content, with a copy to TOC.

g. FTA/FWSO will issue its Final Safety Event Investigation Report to WMATA and meet to discuss investigation findings.

3. In the event that FWSO participates in a WMATA investigation:

a. WMATA must provide access to equipment, systems, data, witnesses, employees, records, and any other items requested by FTA in order to conduct its investigation.

b. WMATA must provide escorts as needed.

c. WMATA will use FWSO-approved safety event investigation procedures to conduct the investigation.

d. FWSO must be permitted to accompany WMATA during its investigation activities.

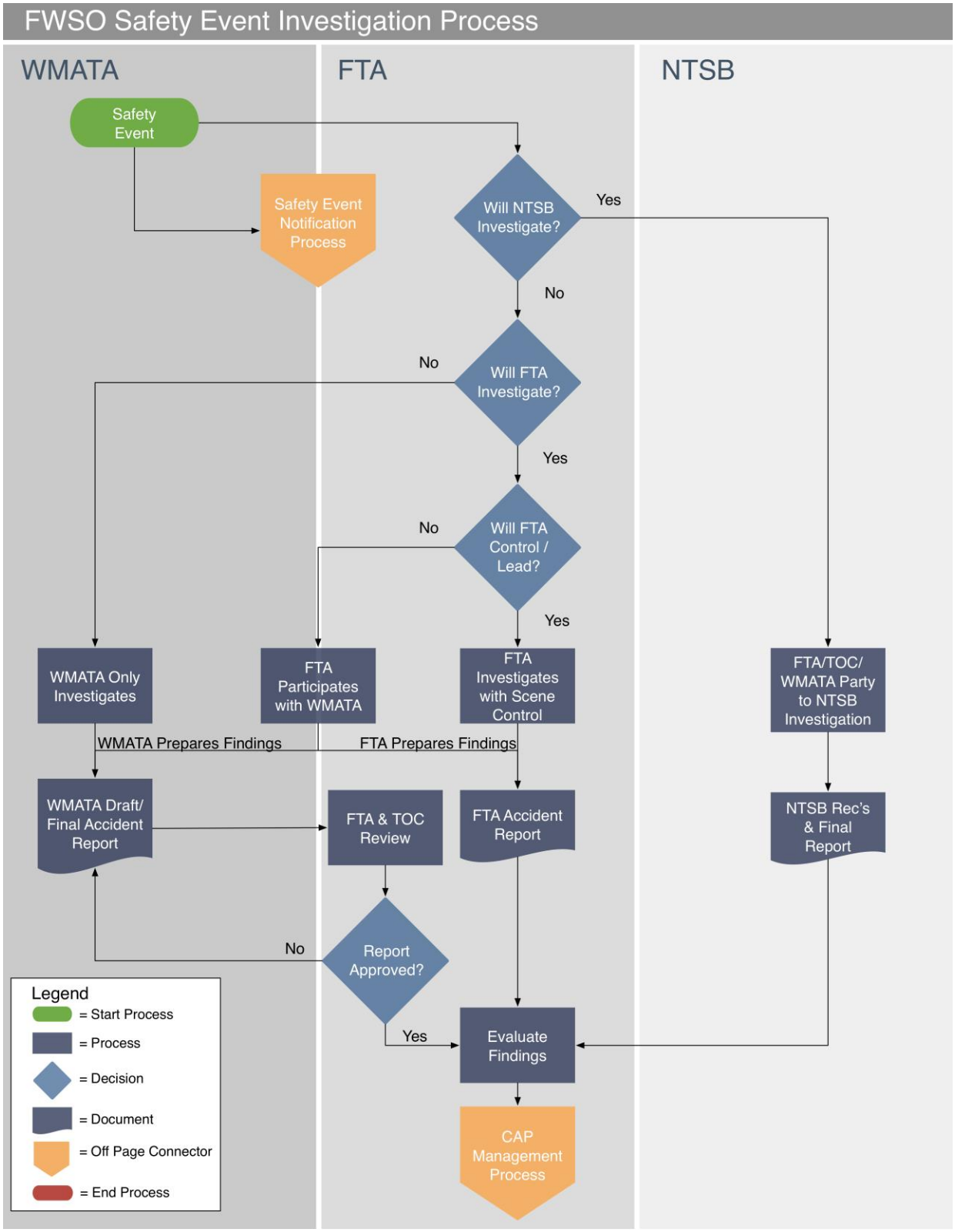
e. FWSO must be permitted to participate in WMATA meetings, interviews, and records reviews related to the investigation.

f. If FTA/FWSO identifies a condition or conditions that present imminent danger to persons or equipment, FTA/FWSO will notify WMATA immediately so that mitigations can be put in place or actions can be taken to reduce the risk of imminent danger to an acceptable level prior to resuming service delivery.

g. FWSO may develop a special investigation report in response to its participation in a WMATA investigation.

h. WMATA must document its safety event investigation as per the Safety Event Investigation Documentation and Reporting Requirements section (items 1-9) above.

Safety Event Investigation Process



FWSO-OS-3 Corrective Action Plans

This section describes FWSO requirements for WMATA CAP development, implementation, verification, and closeout.

Purpose

1. This section establishes a standard set of instructions for WMATA to follow when developing CAPs.

2. This section describes FWSO standards for CAP review and approval, CAP implementation verification, CAP meetings, and CAP closeout and documentation.

3. This section replaces Section 10 of TOC's Program Standard as it relates to corrective action plans.

General Responsibilities

1. WMATA is responsible for following the requirements outlined in this oversight standard.

2. WMATA is responsible for developing CAPs as directed by FTA/FWSO.

3. WMATA is responsible for implementing CAPs and providing sufficient documentation and evidence of implementation.

4. WMATA is responsible for developing ongoing monitoring activities and indicators to ensure CAPs have been successfully closed.

5. FWSO is responsible for reviewing and approving CAPs and verifying CAPs prior to closeout.

6. FWSO will coordinate with TOC regarding CAP disposition during CAP-related meetings.

7. FWSO may, as necessary and under formal communication, direct TOC to support requirements identified in this section.

8. FWSO reserves the right to issue corrective actions outside of the Safety Directive process for urgent or emergency concerns resulting from activities such as inspections or field observations.

General Requirements

1. WMATA will develop and submit CAPs to FTA as directed, following:

    a. Accident investigations (conducted by WMATA, FTA, FWSO, or NTSB)

b. Audits, reviews, or special studies related to safety at WMATA (conducted by FTA, TOC, Government Accountability Office (GAO), Office of Inspector General (OIG), other Federal, State, or Local agencies)

c. Three-year safety review findings (conducted by FTA or TOC)

d. Special safety studies (conducted by FTA or TOC)

e. Safety investigations (conducted by WMATA, FTA, or TOC)

f. Inspections, field observations, and witnessing activity (conducted by FTA or TOC)

g. CAP verification reviews (conducted by FTA or TOC)

h. Safety Directives from FTA

2. When determined necessary, FTA will issue a Safety Directive with required actions for WMATA to take when developing its CAPs.

3. WMATA must include the following sections/information for each developed CAP:

a. Title Page

b. Table of Contents

c. Purpose

d. Analysis and Recommendation

e. Action Plan Description

f. Approach

g. Schedule

h. Budget / Cost Estimate

i. Internal Stakeholders

j. CAP Completion Documentation

k. Performance Measures

l. Verification

m. CAP Approval (documentation of FWSO approval)

4. CAPs may not be changed once FWSO has approved them, except as outlined in Item #16 below.

5. WMATA will have 60 days to respond to FTA's Safety Directives with a proposed CAP or CAPs, to provide additional information for consideration, and to propose any equivalent alternate actions for consideration by FTA's Administrator.

6. Sixty days after the 30-day response timeframe, WMATA must submit a tracking matrix to FWSO that identifies the specific actions it will perform to address each required element specified in this Safety Directive; the milestone schedule for completing corrective actions; the responsible parties for action and their contact information; and the verification strategy for ensuring the completion of required work.

7. FWSO will review and approve WMATA's CAPs and will monitor the agency's progress in resolving each finding and required action. FWSO also may consult with the TOC and the MWCOG on review and final approvals for WMATA work plans addressing Metrorail activities.

8. WMATA must submit documentation regarding CAP implementation activities to FWSO according to the milestone schedules specified in the FWSO-approved CAPs.

9. For ongoing WMATA CAP submittals, FWSO will review for completeness to ensure that WMATA is on track to complete CAP implementation within the agreed upon schedule. This activity may include direct verification with the affected operating department and/or SAFE. FWSO will request clarification as necessary and will update its CAP tracking report and provide it to WMATA.

10. WMATA must provide weekly CAP status reports on any updates to CAPs to FWSO.

11. Formal CAP closeout must be requested by WMATA through a formal CAP closeout letter and package.

12. FWSO will review each CAP closeout submittal request and provide WMATA the results of its assessment.

13. If FWSO believes that WMATA has sufficiently addressed the CAP, FWSO will contact WMATA to schedule CAP verification activities as appropriate.

14. WMATA must provide access to records, systems, and personnel so that FWSO can verify CAP implementation. Sample verification activities will include:

    a. Attendance of meetings, training, drills, exercises, and activities at WMATA;

    b. Document submittals from WMATA and TOC;

c. Reports and data in WMATA's information management systems;

d. Records review and interviews on-site at WMATA;

e. Announced and unannounced inspections on-site at WMATA designed and scheduled to verify specific elements of CAP implementation or the effective management of the issue or concern that necessitated the CAP originally;

f. Field observations and point-verifications on-site at WMATA;

g. Witnessing of tests and periodic maintenance at WMATA;

h. In-depth inspections, reviews, audits, or studies of a particular safety issue or concern; and

i. Other activities as specified.

15. FWSO may also direct TOC to follow-up on the implementation of specific CAPs at WMATA through any of the above-listed methods, and to report the results to FWSO.

    a. FWSO will communicate direction to both TOC and WMATA.

16. If WMATA identifies an alternative course of action to that initially proposed to and approved by FWSO, WMATA may submit a new CAP identifying this alternative, including an evaluation of and justification for the change, to FWSO for approval.

    a. If approved by FWSO, FWSO will treat this CAP as a new CAP and move it through the full CAP approval process.

17. Petitions for Relief or Reconsideration

    a. WMATA may petition for special approval to take actions not in accordance with a directive, or may petition for reconsideration.

    b. Such petitions must be submitted to the Administrator, who is authorized to dispose of those requests without the necessity of amending the directive.

    c. In reviewing any petition for special approval, the Administrator will grant petitions only in which WMATA has clearly articulated an alternative action that will provide, in the Administrator's judgment, at least a level of safety equivalent to that provided by compliance with the directive.

    d. In reviewing any petition for reconsideration, the Administrator will grant petitions only in which WMATA has clearly articulated material facts not in evidence at the time of the directive.

e. A petition for special approval for reconsideration must be filed within 30 days from the date of the issued Safety Directive.

18. Penalties

a. FTA will manage any violation of a directive or the terms of any written plan adopted pursuant to a directive to provide alternate protection in accordance with its authorities under 49 U.S.C. § 5329.

FWSO-OS-3-A

Monthly Corrective Action Plan (CAP) Tracking Update and Posting to Website

Purpose

1. This section establishes a standard set of instructions for developing the FWSO Monthly Tracking Update which details WMATA's implementation status of approved CAPs.

2. This section also describes the process for posting the monthly update to the FTA's website.

General Responsibilities

1. WMATA is responsible for weekly and monthly reporting on CAP status to FWSO, and for providing in-progress CAP deliverables to FWSO as they are completed.

2. WMATA is responsible for documenting the process to be used to provide FWSO with this status tracking in a Project Management Plan (PMP) or other document.

3. FWSO is responsible for providing a secure, Internet-based workspace to manage the weekly CAP submittals and supporting materials from WMATA.

4. FWSO is responsible for ensuring that authorized WMATA, TOC, MWCOG, and FTA/FWSO representatives are invited to join this workspace and are assigned appropriate authorization levels based on their need.

5. FWSO is responsible for verifying the CAP status reported by WMATA and for maintaining an accurate weekly report on the status of WMATA CAP submittals and FTA evaluation and verification activity.

6. FWSO is responsible for providing a monthly a monthly update on CAP status.

7. FTA's Office of Communications and Congressional Affairs (TCA) is responsible for ensuring the monthly CAP update is uploaded to FTA's public website.

General Requirements

1. WMATA's process for developing, tracking, and implementing CAPs to address FTA's findings and required actions must be documented in a PMP or other document.

2. WMATA will establish schedules for all CAPs developed to address FTA's findings and required actions, which must be approved by FTA.

3. WMATA will provide FWSO with weekly updates on each CAP's progress, including completed deliverables and sub-deliverables for each CAP.

4. WMATA will use FWSO's secure, Internet-based workspace to upload weekly CAP submittals and supporting materials.

5. WMATA's Managing Director, Quality and Internal Compliance Office (QICO) will serve as the designated WMATA point-of-contact for uploading CAP submittals and supporting materials.

6. The QICO Managing Director will send a weekly email to FWSO outlining WMATA's progress for that week.

7. The QICO Managing Director will upload any new CAP materials and CAP closure requests to the secure workspace by close of business on Friday of each week.

8. FWSO's CAP Program Manager will confirm WMATA CAP submittals received each week.

9. FWSO's CAP team will enter changes in status, dates, and submittals in the CAP Access Database established to support CAP status tracking.

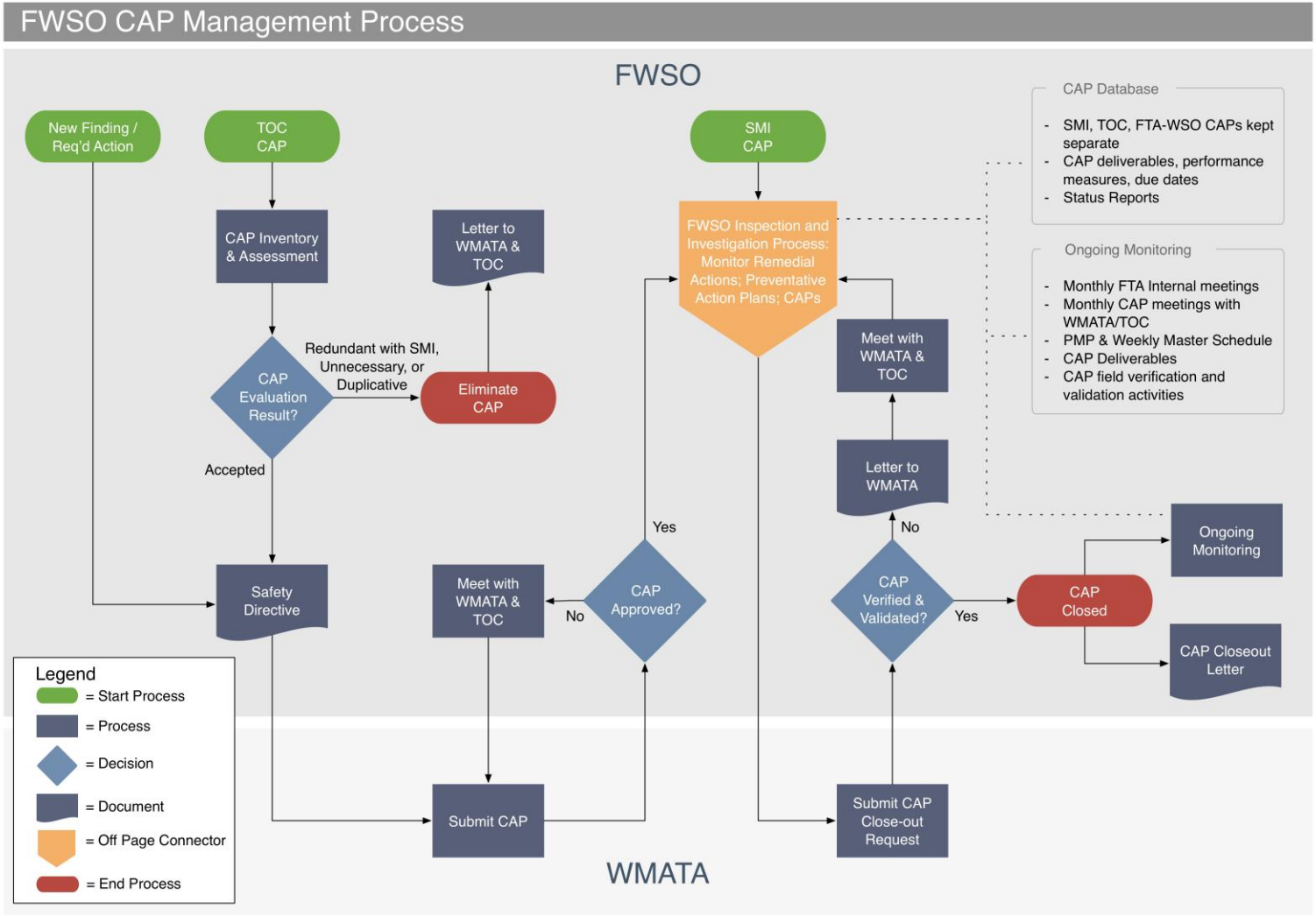
10. FWSO's CAP Program Manager will issue a weekly report for CAP Closeout Requests from the Access Database.

11. FWSO's CAP Program Manager will open a folder on each proposed CAP closure request and initiate subject-matter expert review, as specified in FWSO's Oversight Standard FWSO-OS-3 Corrective Action Plans.

12. FWSO's CAP Program Manager will coordinate and schedule required follow-up inspection and verification activity in support of CAP closeout.

13. FWSO's CAP Program Manager will provide weekly updates on the results of CAP verification and closeout activity.

FWSO CAP Management Process



FWSO-OS-4 Safety Risk Management

This section describes FWSO requirements for WMATA implementation and maintenance of its safety risk management process.

Purpose

1. This section establishes a set of instructions for WMATA to follow when describing and developing the standard activities it will implement as part of its safety risk management process.

2. This section describes FWSO standards for oversight of WMATA's implementation and maintenance of its safety risk management process.

3. This section (end of this section) provides key FTA definitions regarding safety risk management that WMATA must adopt.

4. This section replaces Section 11 of TOC's Program Standard as it relates to hazard management.

General Responsibilities

1. WMATA is responsible for following the requirements outlined in this oversight standard.

2. WMATA is responsible for implementing and maintaining a safety risk management process that includes activities and tools for the identification and analysis of hazards, the evaluation of safety risk associated with the potential consequences of analyzed hazards, and the development of mitigations to reduce evaluated safety risk to levels commensurate with WMATA's safety performance targets.

3. WMATA is responsible for initially documenting its safety risk management process and activities; and updating, on an ongoing basis, the outputs of its safety risk management activities.

4. FWSO is responsible for overseeing WMATA's implementation and maintenance of the safety risk management process and its activities.

5. FWSO may, as necessary and under formal communication, direct TOC to support requirements identified in this section.

General Requirements

1. WMATA must implement and maintain formal activities for the identification of hazards based upon proactive and reactive sources of safety data collection, as well as for the documentation of hazard identification activities.

2. WMATA must adopt definitions for "safety concern," "hazard," "consequence," and "safety risk" in accordance with the guidelines provided by the FTA Safety Management Systems (SMS) Framework.

3. WMATA must identify and document the circumstances and situations that require hazard analysis, including those that may arise as a function of safety assurance activities, including planned and unplanned changes to WMATA operations, systems, procedures, personnel, and organization.

4. WMATA must involve subject matter experts from the different service delivery departments involved in the operation being considered in its hazard analysis as appropriate.

5. WMATA must define and document the levels of management (supervisory, operational, and executive) that must receive information on the results of hazard analyses as a function of their authority and responsibility in terms of the agency's service delivery.

6. WMATA must adopt formal criteria for the evaluation of the safety risk (probability and severity) of the potential consequences of hazards. WMATA must take existing mitigations into consideration as part of its formal criteria for safety risk evaluation.

7. WMATA must involve subject matter experts from the different service delivery departments in the operation being considered in safety risk evaluation activities, as appropriate.

8. WMATA must adopt a safety risk matrix specific to its operations that reflects the criteria for determining safety risk tolerability.

9. WMATA must define the level(s) of management that has authority to make decisions about safety risk.

10. WMATA must establish and maintain a procedure to guide elevation of safety risk evaluations to executive management.

11. WMATA must establish and maintain criteria to guide safety risk mitigation prioritization.

12. WMATA must assign responsibility for mitigation implementation to specific departments/individuals, including time frames for implementation, monitoring, and closure.

13. WMATA must document its safety risk evaluation activities in full (for example, through a safety risk register) and provide a record of those activities to FWSO on a monthly basis.

14. WMATA must provide FWSO remote access to its system for documenting its safety risk evaluation activities.

15. FWSO will review WMATA's safety risk evaluation activities and outputs on a monthly basis.

Key Definitions

Hazard means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a rail fixed guideway public transportation system; or damage to the environment.

Safety risk management means a process within a Rail Transit Agency's SMS for identifying hazards and analyzing, evaluating, and mitigating safety risk.

FWSO Oversight and Surveillance Activities

The objective of FWSO oversight and surveillance activities is to oversee WMATA's development of indicators by which FWSO can monitor and track WMATA safety performance as well as operations and maintenance performance as they relate to safety. This level of ongoing surveillance allows FWSO to consistently track WMATA performance, to schedule inspections and other oversight activities, and to intervene when necessary. The sections to follow define a set of oversight and surveillance activities that are primarily centered on the development of performance indicators to be defined with reporting and monitoring frequencies and documented in a *Performance Monitoring Agreement* between FTA and WMATA.

FWSO and WMATA will define a set of measurable performance outcomes and associated indicators in order to determine whether the system is truly operating in accordance with safety and service delivery (including operations and maintenance) expectations to identify where action may be required to bring WMATA's performance to levels that are agreed upon. These measurable performance outcomes also permit the actual performance of activities critical to safety to be assessed against existing organizational controls so that necessary corrective action is taken when necessary.

The *Performance Monitoring Agreement* will include indicators for all WMATA major departments, systems and activities. FWSO will establish performance indicators for operating and maintenance departments as well as safety activities. Performance indicators may include, for example, indicators to support monitoring of closure rates for work orders, processing rates for defect reports, and targets for rules compliance activities. Others will include the monitoring of WMATA CAP development, prioritization, budgeting, and implementation activities. Additional examples include indicators for elements such as processing rate for employee safety reports and both leading and lagging safety indicators.

Through the *Performance Monitoring Agreement* FWSO will monitor performance, at a minimum, in the following WMATA departments, systems and activities:

- Rail Operations Control Center
- Maintenance and Inspections
    - Track
    - Vehicle
    - Signal and communications
    - Traction power
    - Escalator/Elevator

- CAP Implementation Status
- WMATA's Safety Measurement System
- WMATA Safety Meetings
- WMATA's Safety Assurance Activities
- Service Delivery
- Maintenance Work Orders
- Inspection Defect Reports
- Rules Compliance

Based on this performance monitoring, FWSO may initiate at least one of the following, but not limited to, primary oversight activities:

- Inspections (including observations and employee interviews)
- Witnessing
- Records Reviews
- Audits

Annual Oversight Activities Forecast

- FWSO will develop an *Annual Oversight Activities Forecast* to provide executive management at WMATA, TOC, and MWCOG with a long-range view of planned oversight activities.
- FWSO will coordinate with TOC and MWCOG regarding oversight activities delegated to the TOC for execution, including the designation of teams and determination of scope (for example, TOC Three-year Safety Review activities), such that they are reflected in the forecast.
- FWSO will meet with members from WMATA, TOC, and MWCOG monthly to review each month's activities, roles, and responsibilities, and update the annual forecast as necessary.
- The annual forecast does not preclude immediate interventions deemed necessary by FWSO.

FWSO Inspections

This section identifies the types of inspections and observations that FWSO will conduct at WMATA operations and maintenance and facilities to assess compliance with Federal rules or standards and all relevant WMATA standards, rules, and procedures. FWSO will also refer to national effective practices as criteria for its inspections. Inspections may include, but not be limited to, the following:

- CAP verification
- Data-driven or audit findings driven observations, records reviews, or verification
- WMATA employees and contractors for compliance with WMATA rules and procedures
- WMATA rules compliance and operational testing programs for operations and maintenance employees in safety sensitive positions, including supervisors and yard operations
- Safety and maintenance inspection of track, vehicles, traction power, and signal and train control systems, testing, and repair programs, and other equipment and facilities
- WMATA inspection, maintenance, and repair records of vehicles, track, signal system, communications equipment, stations, elevators/escalators, and various other infrastructure
- WMATA rail operations control center (ROCC) and bus operations control center (BOCC), and the overall quality of the radio system and visual display systems used to support and monitor rail and bus operations
- WMATA roadway worker protection program
- Communication regarding maintenance and safety issues across WMATA departments and with WMATA executive leadership as well as WMATA Board of Directors (Metro Board Safety Committee Chair)
- Initial and refresher training programs for operations and maintenance employees in safety sensitive positions
- Implementation of WMATA fatigue management program
- Implementation of WMATA Close Call Reporting Program
- Supervision provided for operations and maintenance employees in safety sensitive positions
- WMATA information management systems to support enhanced safety risk assessment and hazard management activities

- The quality and effectiveness of WMATA plans, procedures, and training programs for managing emergencies, and ensuring the readiness of WMATA's front-line personnel and emergency responders
- WMATA's adherence to and implementation of its change management program
- WMATA's quality audits of their safety sensitive operations and maintenance activities
- Interface with WMATA Office of the Inspector General and their supervision and conduct of independent audits, investigations, and reviews of WMATA programs and operations

Checklists will guide FWSO inspections and observations and the results documented in inspection reports (see Draft Form FTA-IR in Appendix D) and will be shared with WMATA. Inspection results will be entered into an FWSO database for further analysis and tracking.

Inspection Types

FWSO will conduct both routine (scheduled) and targeted (priority-based focus) inspections at WMATA. FWSO Inspectors reserve the right to conduct unannounced inspections.

Routine Inspections

FWSO will generate a quarterly schedule for routine inspections and share this schedule with TOC and WMATA. FWSO will email WMATA a 30-day look-ahead schedule for routine inspections to department contacts, copying WMATA's QA/QC Director and its Chief Safety Officer. In addition to the inspection activities for that month, the schedule will contain a contact table to ensure that individual departmental contacts are current. During the week of the scheduled inspection, the FWSO Inspector in Charge or their delegate will contact the WMATA point-of-contact to confirm the date and time for the inspection(s). In the event, that FWSO must conduct an immediate routine inspection, it will contact WMATA's departmental point-of-contact, at a minimum, the day prior to the inspection.

Targeted Inspections

Based on data reported through ongoing surveillance, new reports of accidents or incidents, audits, or other oversight activities, FWSO reserves the right to conduct targeted inspections (announced and unannounced). Targeted inspections may be limited in scope to a specific system or piece of equipment or a specific issue that may be systemic. FWSO will provide notification to WMATA and TOC of its intent to conduct a targeted inspection as soon as possible, recognizing that this could be same-day notification.

Regardless of the inspection type, each inspection will proceed as follows:

- Conduct a job safety briefing with WMATA personnel

- Carry out the inspection activity with:
    - WMATA accompaniment, as necessary
    - A specific inspection activity code(s) and inspection subject title(s)
    - Identified references from which to base the inspection
- Provide an out-brief to WMATA's point of contact prior to departing (daily)

Inspection Results

FWSO Inspectors are responsible for notifying the appropriate WMATA representative of any concerns that require immediate attention. During the out-brief session, FWSO Inspectors will notify WMATA of non-compliances, deficiencies, or defects from unannounced or announced inspections and transmit findings to WMATA for appropriate resolution. FWSO will provide the WMATA inspection point-of-contact with an Agency Response Form that details findings of the inspection that require agency response.

FWSO will issue an Inspection Report (FTA-IR-1) for each inspection. This report is available in the appendix. Each Inspection Report will provide details of the inspection; any non-compliances, defects, or deficiencies identified; as well as any required actions.

FWSO will distribute Inspection Reports to WMATA with a transmittal letter detailing any required actions. WMATA must respond to these required actions within 15 days. Failure to address FTA's required actions may result in the withholding or re-direction of Federal grant funds, the issuance of safety directives, the conduct of follow-up safety inspections or investigations, or public hearings.

Inspection Areas

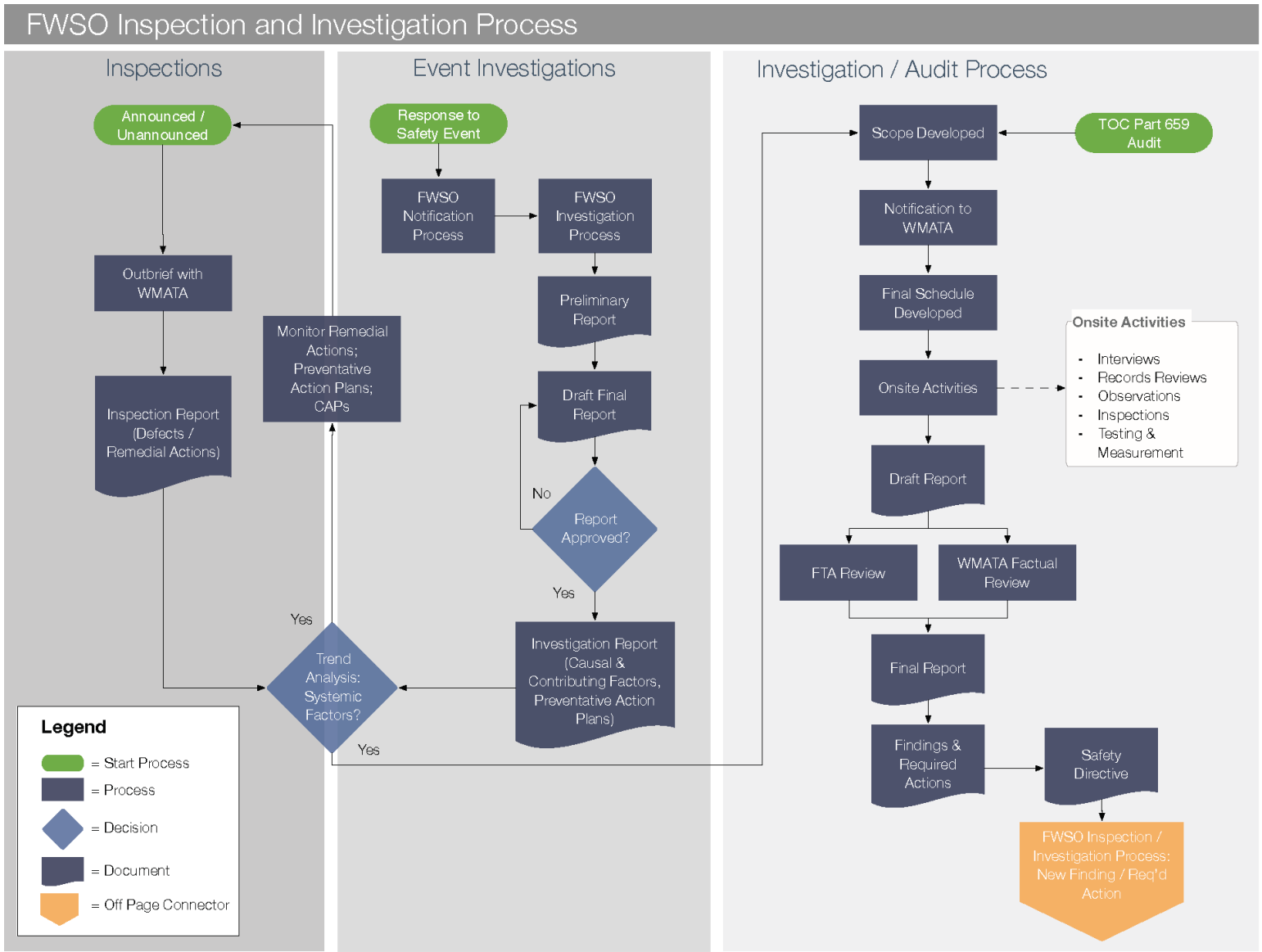
For the following elements, FWSO will conduct inspections at varying intervals, specified in the annual forecast and inspection plan:

- Car Maintenance (*additional checklists under development*)
    - Daily Safety Tests of 1000 Series Rail Vehicles
    - Daily Safety Tests of 2000/3000 Series Rail Vehicles
    - Periodic Inspection "I" of 2000/3000 Series Rail Vehicles
    - Daily Safety Tests of 4000 Series Rail Vehicles
    - Daily Safety Tests of 5000 Series Rail Vehicles
    - Periodic Inspection "C" of 5000 Series Rail Vehicles
    - Periodic Inspection "I" of 5000 Series Rail Vehicles

  - Daily Safety Tests of 6000 Series Rail Vehicles
  - Periodic Inspection "I" of 6000 Series Rail Vehicles
  - Daily Safety Tests of 7000 Series Rail Vehicles
- Elevators and Escalators
- Rail Operations Control Center
  - Radio Rules Compliance
  - Standard Operating Procedure Compliance
    - Responsibilities
    - Emergencies/Unusual occurrences
    - Maintaining service during emergencies
    - Operation from other than lead car
    - Resumption of Normal Services
    - Procedure for Operation of Emergency Trip Station
- Office of Rail Transportation and Office of Train Operations
  - Door Operations/Station Servicing Procedures Compliance
  - Preparing Trains for Service
  - Safety Stops
- Office of Plant Maintenance
  - Emergency Tunnel Evacuation Cart Inspection
  - Emergency Egress Inspection
  - Monthly Tunnel Ventilation Inspection Compliance
  - Annual Tunnel Ventilation Inspection Compliance
  - Dry Standpipe Testing
- Office of Systems Maintenance
  - Emergency Trip Station Inspections and Testing
- Roadway Worker Protection
- Automatic Train Control
  - Cable Insulation Resistance Testing
  - Track Circuit Shunt Verification Testing

- Track
- Track Walking Inspection
- Track Geometry Inspection
- Traction Power

FWSO Inspection and Investigation Process



Witnessing

FWSO defines witness points as specific tests or other activities that are under WMATA's control.

- WMATA will advise the designated FWSO representative as early as possible, but not less than 48 hours in advance of an event for FWSO participation. WMATA may proceed past the witness point if a FWSO Inspector is not present at the appointed time and place.
- Examples of tests and other activities that may be selected as witness points are:
    - Tests of newly installed automatic train control, block signaling and interlocking equipment
    - Simulation testing of automatic train control software and hardware elements
    - Brake rate testing and commissioning of new or refurbished transit vehicles
    - Evaluation of event recorder downloads from train control and vehicles

Laboratory analysis by outside contractors, i.e. metallurgical, chemical, FWSO defines witness points as specific tests or other activities that are under WMATA's control.

- WMATA will advise the designated FWSO representative as early as possible, but not less than 48 hours in advance of an event for FWSO participation. WMATA may proceed past the witness point if an FWSO Inspector is not present at the appointed time and place.
- Examples of tests and other activities that may be selected as witness points are:
    - Tests of newly installed automatic train control, block signaling and interlocking equipment
    - Simulation testing of automatic train control software and hardware elements
    - Brake rate testing and commissioning of new or refurbished transit vehicles
    - Evaluation of event recorder downloads from train control and vehicles
    - Laboratory analysis by outside contractors, i.e. metallurgical, chemical
    - Instrumented post event tests on site such as thermography, ultrasonic, hi-pot, meggar, etc.
    - Emergency response drills
    - Safety training classes for certification / recertification
    - Internal safety and security audits

  - Internal quality audits
  - Implementation of configuration changes to safety critical systems
  - Start-up testing prior to a major system modification
  - Accident Investigation
  - Hazard Analysis
  - Field verification of corrective actions

- Each FWSO designated representative will become familiar with the requirements contained in the specifications and procedures before witnessing any activities.
- Following the completion of each witness point, if there are any safety concerns, they shall be discussed in the field with WMATA and the FWSO Inspector will prepare an Activity Report. Any safety concerns shall be noted in these reports. A copy of all reports noting safety concerns shall be brought to the immediate attention of the WMATA departmental point-of-contact and Chief Safety Officer and transmitted by email to WMATA for appropriate resolution.

- Each FWSO designated representative will become familiar with the requirements contained in the specifications and procedures before witnessing any activities.
- Following the completion of each witness point, if there are any safety concerns, they shall be discussed in the field with WMATA and the FWSO Inspector will prepare an Activity Report. Any safety concerns shall be noted in these reports. A copy of all reports noting safety concerns shall be brought to the immediate attention of the WMATA departmental point-of-contact and Chief Safety Officer and transmitted by email to WMATA for appropriate resolution.

Record Reviews

FWSO representatives will perform records and report reviews as a part of most surveillance and oversight activities. This does include access to WMATA information management and storage systems.

- WMATA must make all records and reports available to FWSO upon request, not including those with exemptions under Security Sensitive Information requirements.
- Examples of records and/or reports that FWSO may review and evaluate, include, but are not limited to:
    - Maintenance Operations Center (MOC) Daily Reports
        - MOC Assistant Superintendent Shift Summary – Rail Incidents involving Track and SMNT
        - Speed Restrictions
        - Track and Structures Systems Maintenance (TSSM) Incident Summary
        - Car Maintenance (CMNT) Daily Delay Incident Summary
        - Automatic Train Control (ATC) Track Circuit Work Orders
    - Systems Maintenance Incident Report
    - Rail Operations Control Center (ROCC)
        - ROCC Incident List Report
        - Daily Incident Reports
    - Office of Rail Transportation (RTRA)
        - Daily Delays, Offloads and No Dispatched
        - Incidents by Line
        - Incidents by Responsibility
        - Incidents by Trouble
    - Up to the Second Operational Performance Data (SPOTS) Report – Details Consist Information, Headways and Station Stops, Door Operations, Station Arrivals and Departures
    - Customer Operations (COPS) Report – Customer Incidents
        - Unusual Occurrence
        - COPS Incident List Report

  - Headway Performance by Day and Period for Month
  - Maintenance and Open Work Order Reports
  - Automatic train control, block signaling, track circuit and interlocking test records
  - Safety Measurement System Reports and Records
    - Hazard analysis
    - Safety risk evaluations
    - Daily accident/incident reporting
  - Training and certification records
  - Internal safety and security audit reports
  - Accident investigation records
  - Hours of service records
  - Operational evaluation records
  - Drugs and alcohol test results

- FWSO will document its review of records within the report for the oversight activity for which the review is being conducted, unless the review is part of ongoing monitoring and surveillance.
- Documentum
  - Request Overview and Training on Documentum
  - Request Access to Documentum
- PROCOR
  - Request Overview and Training on PROCOR
  - Request Access to PROCOR
- General Orders and Track Rights (GOTRS)
  - Request Overview and Training on GOTRS
  - Review GOTRS records for Track Allocation, Red Tags, etc.
- Maximo
  - Request Overview and Training on Maximo
  - Request access to Maximo to review and print records
  - For Track and Structures – request the TRST Track Defect Report
  - For Plant (PLNT) – request the PLNT Work Orders Detail Report

- SAFESTAT
    - Request Overview and Access to reports and statistics from the SAFESTAT database
    - Review reports
- Safety Management Systems (SMS)
    - Request Overview and Training on SMS
    - Request Access to SMS to review and track CAPS, Hazard Management, Accidents/Incidents, Safety Hotline Items
- Advanced Information Management (AIM) system
    - Request overview and Training on AIM
    - Review AIM information as needed
    - AIM has playback capability – post accident this could be vital information
- People Soft (Training Activities – ELM)
- Change Control Database (referenced in SSPP section 17.3)
- Materials Management Database (identified in SSPP 19.0 – may be the PRMT database)
- SAFE Intranet Website – link to MSDS (referenced in SSPP 19.0)
- COPSTAT (MTPD)
    - Request Overview and Training on COPSTAT
    - Review Reports and Statistics
- Tri-State Oversight Committee (TOC) – Accident/Incident Tracking Database
- Sedgwick Database – Risk Management's Third Party Database for tracking Workers Compensation and Third Party Claims
- Training Department Database – monitors training requirements and records
- Procurement (PRMT) Database

Audits

FWSO-led Audits

FWSO intends to publish the audit schedule for the calendar year in its Surveillance and Oversight Activities Forecast. FWSO may also conduct both onsite and desk audits of WMATA as necessary, should concerns arise from surveillance or other activities.

When FWSO conducts an audit, it will provide WMATA representatives a transmittal letter and include the scope of the audit and a description of audit activities. The length of time for the notification of WMATA will be dependent upon the scope of the audit. For example, an audit that has a scope of multiple departments or requires extensive onsite interviews and records reviews will have a much longer lead time (e.g., 30 days) than a desk audit requiring only access to specific records.

FWSO will notify WMATA, TOC, and MWCOG of pending audits. FWSO representatives will work with WMATA personnel on audit logistics, scheduling, and personnel and records access needs. FWSO will note in its notification letter the level of management necessary to attend the entrance and exit interviews. Each onsite audit will consist of the following elements:

- Entrance briefing
- Interviews, records reviews, or observations
- Exit briefing

Findings will be made based on WMATA's demonstration of compliance with plans, programs, and procedures and any applicable rules or standards. FWSO will document findings in an Audit Factual Report that will be distributed to WMATA, TOC, and MWCOG for a two-week review period. FWSO will then finalize the audit report, including findings and required actions, as necessary, and distribute the report to WMATA, TOC, and MWCOG. WMATA must address required actions and provide updates on resolution activities on a monthly basis to FWSO. FWSO will track required actions until closure. In the event that FWSO identifies required actions that will require a formal CAP by WMATA, the corrective action will follow the CAP Management Process outlined previously.

If during the conduct of an audit, FWSO identifies a state of non-compliance or defect, it may take other oversight actions, such as an inspection, to address the identified concern. In such a case the identified concern would be addressed through the Inspection Process identified previously. If the issue or concern is also part of a systemic or organizational deficiency, FWSO may still issue a finding within the audit report. Regardless of the oversight tool, WMATA must address FWSO's finding. FWSO will track the actions taken to address a finding to verified resolution.

TOC Three-year Safety Review

With an FWSO representative participating, TOC will conduct the Three-year Safety Review (which is currently conducted in an ongoing manner) as per 49 CFR Part 659 requirements. As part of the Surveillance and Oversight Activities Forecast, the schedule for these reviews will be established and shared with WMATA's during an oversight coordination meeting between the parties.

Following this review, TOC will prepare and issue a report containing findings to WMATA, MWCOG, and FWSO for a two-week review period. FWSO may request additional information, clarifications, or revisions from TOC. Upon successful review and any necessary revisions, FWSO will issue required actions to accompany TOC's review report. WMATA must address required actions and provide updates on resolution activities on a monthly basis to FWSO and TOC. In the event that FWSO identifies required actions that will require a formal CAP by WMATA, the corrective action will follow the CAP Management Process outlined previously.

Grants Oversight

Under 49 U.S.C. § 5329(e)(6), FTA awards Federal financial assistance to MWCOG for the purpose of safety oversight of the WMATA rail system. MWCOG acts as the recipient of this Federal funding for administrative purposes, only; the District of Columbia, the State of Maryland, and the Commonwealth of Virginia each provide one-third of the local match to this Federal funding, and the three jurisdictions direct the activities of the TOC, through the staff and the consulting resources they provide the TOC. A certain portion of this Federal financial assistance will continue to be allocated for developing a State Safety Oversight Program compliant with 49 U.S.C. § 5329(e). The remainder of this Federal financial assistance will be made available for the purpose of overseeing the safety of the WMATA rail system, and WMATA's completion of the required actions under the CAP process; FTA may impose or modify terms and conditions in the grants of Federal financial assistance for that purpose.

FTA also will exercise its authority under 49 U.S.C. § 5329(g) to direct the use of certain Federal funds received by WMATA to correct safety deficiencies identified in open and outstanding required actions under any Metrorail CAP or for other relevant safety actions as determined by FTA. This FTA-directed use of WMATA Federal funding will apply to all FTA administered grant programs for activities related to rail transit investments.

To assist FTA in this capacity, FTA may require WMATA to provide documentation, information and/or materials such as current and future capital and operating budgets and detailed crosswalks of required actions to specific line items in current and future operating budgets.

Appendix A: Safety Event Notification Form

				FWSO ID No. (*For FWSO internal use*)	
WMATA ID No.				**Reported by (name)**	
Notification Date		**Event Date**		**Reported by (phone)**	
Notification Time		**Event Time**		**Received by**	

Agencies Notified	FTA ☐	NTSB ☐	TOC ☐	Fire ☐	Police ☐	Other (Specify) ☐

Casualties	Passenger	Patron	Employee	Contractor	Trespasser	Other (Specify Type and Number)
Fatalties (number by type)						
Serious Injuries (number by type)						

Location	(Check line)						(Check one type)		
Service color/Track Type	Red ☐	Orange ☐	Silver ☐	Blue ☐	Yellow ☐	Green ☐	Mainline ☐	Yard ☐	Siding ☐
Chain Marker/Signal									

Location Type	At-grade ☐	Tunnel ☐	Elevated ☐	Station ☐	Other Facility (specify)

Event Type		*RMM/TV = Rail Maintenance Machine/Transit Vehicle						
Collision	☐	Train to Train ☐	Train to Person ☐	Train to RMM/TV ☐	Train to Object ☐	RMM/TV to RMM/TV ☐	RMM/TV to Person ☐	RMM/TV to Object ☐
Derailment	☐	(Preliminary cause of Derailment, if known)						
Evacuation	☐	For Life Safety Y N	Method ☐ Emergency/Fire Rescue ☐ Rescue Train ☐ Self-evacuation ☐ WMATA Personnel					
Fire/Smoke	☐	(Preliminary cause of Fire/Smoke, if known)						
Runaway Vehicle	☐	(Preliminary cause of Runaway Vehicle, if known)						
Security	☐	Suicide ☐	Homicide ☐	Assault ☐	Other (Specify)			
Other (Specify)	☐							

Vehicle(s) Involved	Total # of Vehicles Involved	Individual Car Numbers
Class 1 (Revenue)		
Class 2 (Non-Revenue)		
Transit Vehicle		

Event Narrative Description	**Immediate mitigations taken to resume service**

Appendix B: Safety Event Notification and Report Matrix

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
	Event Type –Notifications and Investigations required by 49 CFR § 674 *State Safety Oversight*. * Notifications to the SSO agency and FTA are required. Until the new SSO agency is in place, notifications to FWSO will meet this requirement.					
1	**Fatality** A death or suicide Confirmed within 30 days of a reportable event. Excludes deaths in or on transit property that are a result of illness or other natural causes.	Required	Required	Required	Required	Required
2	**Serious Injury** *a.* Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received, *b.* Results in a fracture of any bone (except simple fractures of fingers, toes, or nose), *c.* Causes severe hemorrhages, nerve, muscle, or tendon damage, *d.* Involves any internal organ, or *e.* Involves second-or third-degree burns, or any burns affecting more than five percent of the body surface	Required	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
3	**Collision** A collision between a Rail Transit Vehicle on the mainline, yard or shop resulting in a fatality, serious injury or property damage and occurring with, or at any of the following: *a.* Another rail transit vehicle *b.* Another vehicle or equipment *c.* A collision at a Grade crossing *d.* A collision with an object *e.* A collision with a person *f.* An Animal	Required	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
4	**Evacuation** Persons withdrawn or removed from rail transit vehicles or facilities due to life safety reasons and hazardous or potentially hazardous conditions such as: *a.* Self-Evacuations to a location that may put passengers or patrons in imminent danger (such as the rail-right-of way). *b.* Security reasons including but not limited to arson; suspicious packages and objects; bomb threats and Chemical/Biological/Nuclear and Radiological releases. ***Life Safety Reason:*** *A situation such as a fire, the presence of smoke, fuel leak, electrical or other hazard, that constitutes an imminent danger to passengers, employees, contractors, or other persons.* ***Note:*** *Reporting is not required for the offloading of passengers at a platform for a mechanical failure, or transfer of passengers to a rescue train unless there was imminent danger to passengers.*	Required	Required	Required	Required	Required
5	**Derailment** Derailment of a Rail Transit Vehicle or Self Propelled Roadway Maintenance Machine (RMM) at any location, at any time, whatever the cause.	Required	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
6	**Runaway Vehicle** Runaway Rail Transit Vehicle or Self Propelled Roadway Maintenance Machine (RMM) on the mainline or yard, including: *a.* Runaway or Uncontrolled vehicle movement (uncontrolled roll back, operator incapacitated or asleep)	Required	Required	Required	Required	Required
26.	Any safety event for which WMATA notifies the National Response Center (NRC) or the National Transportation Safety Board (NTSB)	Required	Required	Event Based Requirement	Event Based Requirement	Event Based Requirement
27.	Unintended movement of a Class 1 (revenue) or Class 2 (non-revenue) vehicle on the mainline or in a yard, including: *a.* Unintended vehicle movement against the normal flow of train traffic *b.* The unintended or mistaken direction of vehicle movements that are conflicting or opposing to other traffic *c.* Overriding a safety device or fail safe system and moving vehicle without permission or direction	Required	Required	Required	Required	Required
28.	Red signal violation / overrun	Required	Required	Required	Required	Required
29.	Unauthorized Class 1 or Class 2 Vehicle encroachment or overrun into a protected work zone	Required	Required	Required	Required	Required

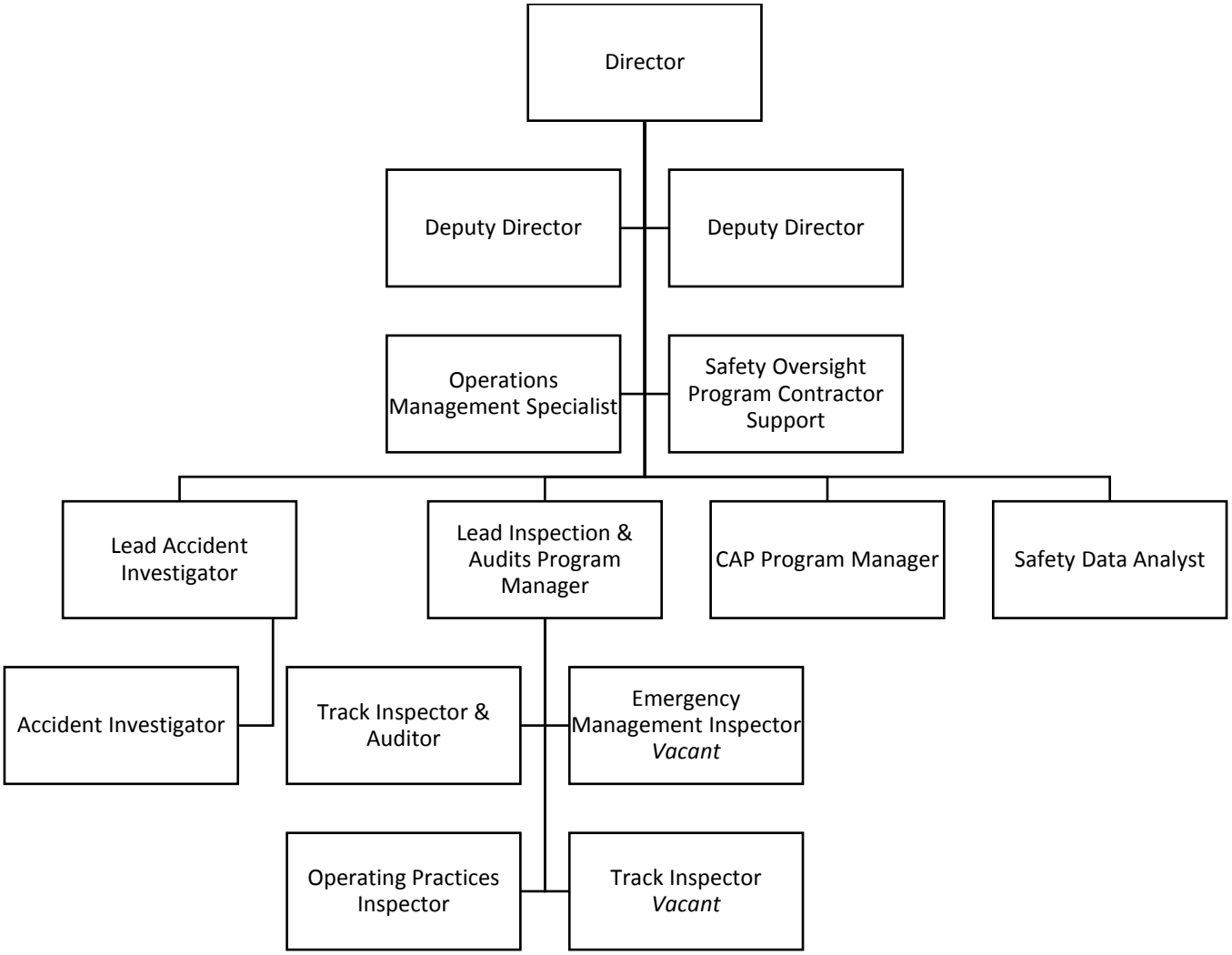
Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
30.	Signal System Failure (False Proceed /Track Circuit Failed Clear/Total or Partial System failure requiring manual block operations)	Required	Required	Required	Required	Required
31.	Operating over an improperly aligned or damaged switch (switch run-through) on the mainline or yard	None	Required	Upon Request	Upon Request	Upon Request
32.	Operator removal from Class 1 vehicle for rule violation such as: *a.* Incapacitated such as drug/alcohol, fatigue *b.* Train over speeding, failure to stop *c.* Use of electronic device	None	Required	Upon Request	Upon Request	Upon Request
33.	A collision with a person that does not result in a fatality serious injury or damage	None	Required	Upon Request	Upon Request	Upon Request
34.	Trainline Door Event *a.* Doors open during train movement *b.* Doors open on wrong side or off platform c. Un-commanded door open	None	Required	Required	Required	Required

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
35.	Fire/Smoke resulting from a Class A (ordinary combustibles); Class B (flammable or combustible liquid or gas); Class C (electrical fires); or Class D (combustible metals) occurring on or in: a. A Class 1 or Class 2 Transit Vehicle b. Transit Rail Facility, to include all or any portion of a building or structure including roads, walks, garages and parking lots c. Tunnel or Right of Way d. Fire related to power jumper cables, track feeder cables, transition and expansion cables (Report Required)	None	Required	Upon Request	Upon Request	Upon Request
36.	Speed restriction or track closure due to infrastructure damage or failure from a deficiency in the state of good repair or extreme weather conditions a. Wide or Narrow Gauge b. Broken/Cracked Rail c. Sun Kinks	None	Required	Upon Request	Upon Request	Upon Request
37.	Hazardous condition that, without immediate mitigation, consequences could reasonably include a fatality, serious injury, or requires stopping the current operation or activity	None	Required	Upon Request	Upon Request	Upon Request

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
38.	Other actions or malfunctions that could have resulted in a fatality, serious injury, or requires stopping the current operation or activity, for example: a. Violation of posted speed or speed restrictions b. Train Rollback while operating in Revenue Service exceeding design specifications c. Unintentional uncoupling of trains on the mainline	None	Required	Upon Request	Upon Request	Upon Request
39.	Fallen or dragging equipment from a rail vehicle	None	Required	Upon Request	Upon Request	Upon Request
40.	Person falls onto right-of-way	None	Required	Upon Request	Upon Request	Upon Request
41.	Broken or missing safety-critical equipment, infrastructure, or systems that could result in a fatality, serious injury, or major disruption in service	None	Required	Upon Request	Upon Request	Upon Request
42.	Incidents/occurrences involving individuals working in the transit agency-controlled right of way	None	Required	Upon Request	Upon Request	Upon Request
43.	Any incident for which Metro Transit Police Department (MTPD) also notifies the Transportation Security Operations Center (TSOC)	None	Required	Upon Request	Upon Request	Upon Request

Code	Event Type	Immediate Phone Notification	Email Notification Within 2 Hours	Preliminary 3-Day Report	Draft Report	Final Report
44.	Any operation or action not listed above that is noteworthy or can be perceived as an unsafe operation or violation of operating practices	None	Required	Upon Request	Upon Request	Upon Request

Appendix C: FWSO Organization Chart



Appendix D: FWSO Inspection Form FTA-IR-1

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**			
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**		**Sub- Department**	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
Inspection Location							

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code						
Inspection Units						
Inspection Subunits						
Defects (Number)						
Recommended Finding						
Remedial Action Required[1]						
Recommended Reinspection						

Activity Summaries

Inspection Activity #	1	**Inspection Subject**				**Activity Code**				
Job Briefing Employee Name/Title			**Accompanied Inspector?**		**Out Brief Conducted**		**Time**		**Outside Shift**	
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference	
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
Line(s)		**Track Number**		**Chain Marker and/or Station(s)**			From		To	
Vehicles	Head Car Number		Number of Cars		**Equipment**					
Description							**Number of Defects**			
							Recommended Finding?			
							Remedial Action Required?			
							Recommended Reinspection?			
Remedial Action										

[1] *The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.*

Inspector in Charge - Signature	**Date**
Inspector in Charge – Name	**Inspection Team**

Appendix E: WMATA Temporary Order T-16-06

Washington Metropolitan Area Transit Authority

METRORAIL SAFETY RULES AND PROCEDURES HANDBOOK

TEMPORARY ORDER

NO. T-16-06: Modification to MSRPH General Rule 1.49

Date: Thursday, April 14, 2016

TO: All Operating Personnel

Temporary Order T-16-06 modifies Metrorail Safety Rules and Procedures Handbook (MSRPH) General Rule 1.49. This modification allows, with prior approval from ROCC, credentialed Federal Transit Administration (FTA) Special Agents and Inspectors access to Class I and Class II vehicle cabs to perform inspections.

Additions to rules and procedures are shown in bold and underline text; deletions are struck-through.

General Rule 1.49: Only those employees and **credentialed FTA personnel** authorized by ROCC are permitted to ride in the cab with the person operating the train.

Approval of Temporary Order T-16-06

Recommended:
Robert Relyea
Acting Director Rail OCC, Chair
Rail Rule Book Committee

Concur:
Hercules Ballard
Managing Director
Office of Rail Transportation

Approve:
Andrew B. Off
Deputy Chief Operating Officer
Rail Services (RAIL)

Concur:
Louis Brown
Acting Chief Safety Officer
Department of Safety &
Environmental Management

Appendix F: FWSO Inspection Form FTA-IR-1

M E M O R A N D U M

SUBJECT: Federal Transit Administration Inspections

DATE: April 15, 2016

FROM: RAIL – Andrew B. Off

TO: All RAIL Employees

Federal Transit Administration (FTA) personnel are currently working within the Metrorail system in order to carry out their oversight mission. As a result of their presence, concerns have surfaced regarding non-WMATA employees riding in the cab of the train; specifically as it applies to MSRPH GR 1.49. This particular rule states that only those **employees** authorized by ROCC are permitted to ride in the cab with the person operating the train. To ensure that our current rule is not compromised, RTRA has drafted a Temporary Order (T-16-06 – Modification to MSRPH General Rule 1.49) that will allow FTA officials to perform their inspections. **Note:** The Rail Operations Control Center (ROCC) will have a current listing of all authorized FTA agents and inspectors.

Upon receiving a request to ride in the cab area, operators of Class I and Class II vehicles must:

- Request the name of the FTA representative and ask for their FTA-issued credentials. **Note:** The FTA Special Agent and or Inspector will display his or her FTA credential, which will consist of a black leather trifold, bearing the official FTA insignia, photograph and ID number
- Verify the name given and the picture matches the person requesting permission to ride in the cab area
- Contact Central Control and provide the FTA representative's name (Central Control personnel will verify the name given is actually on the FTA-issued list of inspectors and agents. Upon ROCC confirming the FTA official's identity, the FTA official is granted permission to enter the cab area)

Washington Metropolitan Area Transit Authority

The following guidance applies:

- Only one FTA official can occupy the cab with an operator
- Names that are not on the FTA Special Agent and Inspector list are not allowed to ride in the cab
- Once notified by FTA of an inspection, ROCC personnel will make an appropriate announcement to all trains that FTA officials will be conducting inspections. ROCC will also remind operators to notify the Control Center when contacted by an FTA official.
- FTA may provide advance notification of inspections (24 hours or more). FTA is not required to provide advanced notice of an inspection.

- Notification will include the general type of inspection that will be conducted, along with the location and start time. They may request support (a supervisor) to accompany them during their inspection; however, they may begin their inspection in the absence of a supervisor.
- Unannounced inspections will include, but will not be limited to, direct observation of rail operators in the cab, observation inside the ROCC, inspection of rail yards, inspection of parked or otherwise secured vehicles, inspection of maintenance facilities and procedures, and system-wide inspections of maintenance work.

It is imperative that we continue to support the Federal Transit Administration as we work together in delivering a safer environment for our customers and employees. Thank you and be safe.

cc: COO – J. Requa
BUS – R. Potts
MTPD – R. Pavlick
SAFE – Manael Kennerly
689 – Jackie Jeter

Appendix G: FTA-WMATA Safety Protocol

FTA-WMATA Safety Protocol
August 2016

The Federal Transit Administration (FTA) has temporary responsibility for safety oversight of the Washington Metropolitan Area Transit Authority's (WMATA's) Metrorail system. In accordance with FTA's safety oversight authority and FTA Oversight and Surveillance Plan section OS-4 Risk Management (4/18/2016), FTA personnel conduct inspections and investigations of WMATA Metrorail operations, maintenance, vehicles, equipment, systems, facilities, and property to assess compliance with Federal rules and standards and all relevant WMATA standards, rules, and procedures. Inspections/investigations may be announced or unannounced.

The FTA and WMATA are committed to ensuring the safety of FTA personnel, WMATA personnel, and the riding public as FTA carries out its safety oversight responsibilities. To fulfill this safety commitment, FTA and WMATA agree to adhere to the terms set out in this Safety Protocol (Protocol), absent exigent circumstances.

Nothing in this Protocol limits or expands the statutory and regulatory authority of FTA to carry out its safety oversight responsibilities.

I. **Track/Yard Access**

A. WMATA will provide a Level 4 Roadway Worker In Charge (RWIC) to escort FTA personnel for any event that requires Roadway access as that term is defined in the Roadway Worker Protection rules, and which includes, access to all track locations, including main, yard and other than main track (OTMT). In addition, WMATA Subject Matter Experts (SMEs) will escort FTA personnel in rooms and facilities where significant potential hazards or safety critical components reside (*e.g.*, traction power rooms, ATC enclosures).

B. FTA personnel will provide reasonable notification to WMATA to secure a WMATA Level 4 RWIC for escort during all inspections and investigations. Notification will include:

1. The names of participating FTA personnel;
2. The scope of inspection, including:

    a. Time and meeting place;
    b. Limits of inspection (*e.g.,* line, track, start point ending point);
    c. Necessary support required, including any escorts, operating personnel representation (*e.g.*, subject matter experts (SME)) and Department of Safety and Environmental Management (SAFE) personnel;
    d. Required on-track equipment, if any; and
    e. FTA shall provide in its request the anticipated requirements for

additional protection as necessary. However, WMATA may supplement those requirements with more restrictive measures to ensure safety if the FTA request is deemed not to be sufficient protection and to the extent that the Roadway Worker Protection rules so require, including, but not limited to:

i. Track out of service;
ii. Inaccessible track (*e.g.*, portable derails, shunt blocks /shutting devices, prohibited exits/SCADA track block, blocking/lining switches, removal of rail);
iii. De-energized third rail;
iv. Interlocking local control;
v. Additional flaggers /watchmen; and
vi. Additional speed restrictions.

II. Track Inspections/Investigations

A. In addition to the RWIC, a SME in the area being inspected/investigated must also participate to ensure that appropriate restrictions can be put in place should FTA identify a defect during the inspection/investigation.

B. In the event that a defect is found that is not within the requested SME's area of expertise, the Rail Operations Control Center (ROCC) will be notified and will instruct the RWIC on appropriate mitigating action until an appropriate SME can assess the defect.

III. Personal Protective Equipment (PPE)

A. FTA personnel will follow FTA PPE standards that provide a level of safety comparable to OSHA standards and standards imposed by U.S. transit systems.

IV. Safety Rules

FTA personnel will conform to existing WMATA Metrorail safety and roadway worker protection rules except as otherwise specified in this Protocol.

V. Radios and Electronic Devices

A. FTA personnel will not possess or use handheld radios capable of broadcasting on WMATA frequencies. However, FTA personnel may monitor WMATA radio transmissions immediately upon request.

B. FTA personnel may carry personal electronic devices (PEDs) (*e.g.*, smart phones, cameras, and tablets) for purposes of documenting the inspection or investigation or portions thereof and for emergency communications. FTA personnel shall not use these

devices during inspections or investigations other than in the direct performance of their duties.

VI. Roadway Worker Protection (RWP) Job Safety Briefing and Training Requirements

A. FTA personnel will participate in the RWP Job Safety Briefing as required prior to initiating an inspection or investigation.

B. FTA will voice and document any discrepancies or concerns observed during the Safety Briefing on the FTA Inspection Report.

C. FTA personnel will sign the Safety Briefing form.

D. During the Safety Briefing and prior to entering the right-of-way or any other relevant WMATA property, FTA personnel will verify and document for WMATA that each FTA participant has current RWP Level 1 certification prior to entering the right-of-way.

E. FTA may raise concerns in the spirit of the good faith challenge process if it believes the roadway worker protection in place is insufficient. Pursuant to practices in the good faith challenge process, the group will clear to a place of safety until the issue is resolved. If the parties cannot reach an agreement, the concerns will be escalated to the appropriate level of WMATA and FTA management for resolution.

VII. Exigent Circumstances

A. If the FTA determines that it needs immediate access to inspect or investigate an emergency situation and the terms set out above would unnecessarily impede access, the Administrator of FTA (or his/her designee) will communicate with WMATA's Chief Executive Officer and General Manager (or his/her designee) to secure appropriate access. FTA acknowledges that exigent circumstances do not waive its obligation to be escorted by a WMATA Level 4 RWIC escort; provided, however, that WMATA uses its best efforts to immediately secure a WMATA Level 4 RWIC escort should exigent circumstances exist.

Carolyn Flowers
FTA Acting Administrator

Date: 8/11/2016

Paul Wiedefeld
General Manager and CEO, WMATA

Date: 8/12/16