

Washington Metropolitan Area Transit Authority



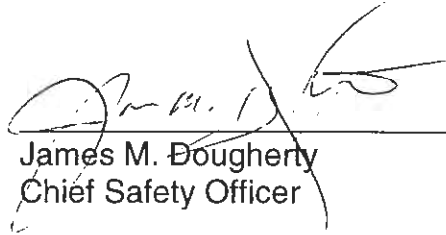
SYSTEM SAFETY PROGRAM PLAN


January 2014

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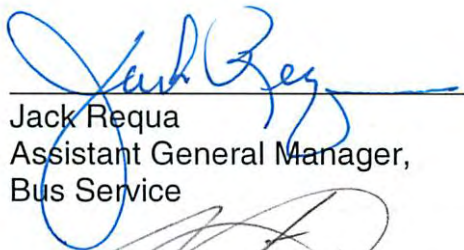
Concurrences and Approval


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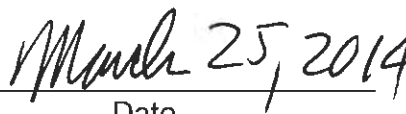

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General Manager and
Chief Executive Officer


Date





2014 System Safety Program Plan Revisions		
Section	Revisions	Reason for Revision
Document	Changed from 2013 to 2014	
	Concurrences and Approval: A. Robert Troup replaced Dave Kubicek	
	Concurrences and Approval: Ronald A. Pavlik replaced Michael Taborn	
	Concurrences and Approval: Rodrigo Bitar replaced A. Robert Troup	
3.3.4.3	BMNT Training replaced Metrobus Divisions	
3.3.9	Added 3.3.9 Maintenance, BUS	
3.7.1	Added 3.7.1 Office of Bus Maintenance	
7.0	Managing Safety in System Modification replaced Safety and Security Certification	
7.1	System Modification replaced Overview	
7.1.1 & 2	Added 7.1.1 TIES and 7.1.2 BMNT	
7.2	New Systems/New Equipment replaced Safety and Security Certification Plan	
7.3	Removed	
8.0	Safety and Security Certification replaced Managing Safety in System Modification	



2014 System Safety Program Plan Revisions		
Section	Revisions	Reason for Revision
Document	Changed from 2013 to 2014	
8.1	Overview replaced System Modification	
8.2	Safety and Security Certification Plan replaced New Systems/New Equipment	
8.3	Added 8.3 Safety and Security Certification Process	
8.4	Added 8.4 BUS Safety Certification	
21.1	Added 21.1 Overview	
21.2	Added 21.2 Procurement of Chemicals and Hazardous Materials	
21.3	Added 21.3 Inspection of Contractor Equipment, Vehicles, Work and Deliverables	
21.4	Added Inspection of Inventory Material	
Appendix	Added Appendix D – WMATA Organization Chart	
Appendix	Added Appendix E – SAFE Organization Chart	



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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 the Tri-State Oversight Committee's *TOC Program Standard and Procedures* (PS/P) (September 2012).

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 the Tri-State Oversight Committee (TOC) 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.



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*.

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 is established under *Policy/Instruction No. 1.13/0, Departmental Manuals*. The SSPP complies with section 10 of the Tri-State Oversight Committee's *Program Standards and Procedures* (September 2012). The TOC is the designated State Safety Oversight Agency under *Code of Federal Regulations* title 49, part 659. The TOC was established by a "Memorandum of Understanding" among the District of Columbia Department of Transportation (DDOT), the State of Maryland Department of Transportation (MDOT) and the Commonwealth of Virginia Department of Rail and Public Transportation (VDRPT) last updated on September 13, 2010.



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



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 METROPOLITAN 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 1-1



RESOLVED, That this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,

Carol B. O'Keeffe
General Counsel

Exhibit 1-1



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. Accordingly, safety is first, above all else, in all WMATA activities including operations, maintenance, and administrative functions of the organization. There is no higher value or priority than safety. A truly successful, effective and enduring safety program is one that prevents incidents from occurring by identifying risks in advance. We are building the foundation of a culture of prevention at Metro. We are developing a Safety Measurement System (SMS) to track, identify and monitor progress to address safety concerns. We have rebuilt and expanded our safety department.

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. Employees and customers are WMATA's most important assets, and their safety and security are WMATA's greatest responsibilities.

While the control of hazards and the prevention of accidents in Metrorail, Metrobus and MetroAccess transportation systems and facilities are the responsibility of each employee, they are foremost the responsibility of WMATA management. WMATA management is responsible for developing programs to promote and ensure the safety and security of all employees and customers. We are fully committed to providing a safe work environment, and safe vehicles, systems, and facilities. To that end, the WMATA Chief Safety Officer is empowered and authorized to administer a comprehensive, integrated and coordinated *System Safety Program Plan* (SSPP).

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, environmental and corporate quality assurance issues for WMATA. This includes: developing and implementing, with WMATA executives and managers, the *System Safety Program Plan*; developing and managing a comprehensive Hazard Management Program; conducting accident and incident investigations on behalf of WMATA; developing and implementing a comprehensive Internal Safety and Security Audit Program; developing and implementing a Safety and Security Certification Plan; developing occupational safety and environmental plans and procedures; conducting safety related training programs; enforcing work rules; auditing the System Safety Program, safety rules and Standard Operating Procedures (SOPs) for compliance and coordinating with the Tri-State Oversight Committee on rail related safety issues, activities and programs described above.

Richard Sarles,
General Manager and Chief Executive Officer
January 2013

Exhibit 1-2



2.0 Purpose, Scope, Goals and Objectives

2.1 Purpose

The purpose of the SSPP is to set forth the requirements for 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 Twenty-one Elements required in the TOC PS/P, section 12 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 TOC 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, except where notifications, reports and approvals of documentation to the TOC are identified. The TOC is provided with rail system information only. The MetroAccess management team is required to develop, implement, and monitor the effectiveness of the SSPP for MetroAccess.

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 the TOC PS/P established under the FTA State Safety Oversight requirements.



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 these 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;
- 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 OSHA Standards, local codes and environmental regulations.



Each WMATA office/department in conjunction with the Office of Performance establishes annual safety objectives that are quantifiable and attainable. Success in meeting these objectives is quantified by the 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 Board Safety and Security Committee Reports. 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. The Annual Safety Performance Report is provided to the Board Safety and Security Committee and the TOC. 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.



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, to replace 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 revenue miles of 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 106.5 miles of track and serves 86 stations. With the completion of Phase 1 of the Silver Line to Wiehle Avenue in early 2014, Metrorail will add 11.4 miles of track and five (5) additional stations. The completion of Phase 1 will bring the system to a total of 117.9 miles of track and 91 stations. The projected completion of Phase 2 of the Silver Line in 2018 will extend Metro into eastern Loudoun County adding an additional 11 miles of track and six (6) new stations. In February 2013, Metrobus celebrated 40 years of service in the region. In March 2013, Metrorail celebrated 37 years of operation.

3.2 Scope of Service

WMATA's operations are performed in three distinct, but complementary systems; they are:

- Metrorail Operations

Metrorail ridership was over 212,188,643 trips in CY 2012. 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 through Thursday...5:00 a.m. to Midnight
- Friday.....5:00 a.m. to 3 a.m.
- Saturday.....7:00 a.m. to 3 a.m.
- Sunday.....7:00 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 cars;
- Minimum headways of 1.5 minutes between trains; and
- Maximum headways of 20 minutes between trains.



- **Metrobus Operations**

Metrobus ridership was 131,780,964 trips in CY 2012 on its 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 Metrobuses 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. MetroAccess ridership was 2,050,054 trips in CY 2012. 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 106.5 miles of tunnel, elevated, and surface track, operating over exclusive Roadway and includes 86 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.



M System Map

wmata.com
 Customer Information Service: 202 637-7000
 TTY Phone: 202 638-3780
 Metro Transit Police: 202 962-2121

Legend

- RD** Red Line • Glenmont / Shady Grove
- OR** Orange Line • New Carrollton / Vienna
- BL** Blue Line • Franconia-Springfield / Largo Town Center
- GR** Green Line • Branch Ave / Greenbelt
- YL** Yellow Line • Huntington / Fort Totten
- SV** Silver Line • Wiehle-Reston East / Largo Town Center

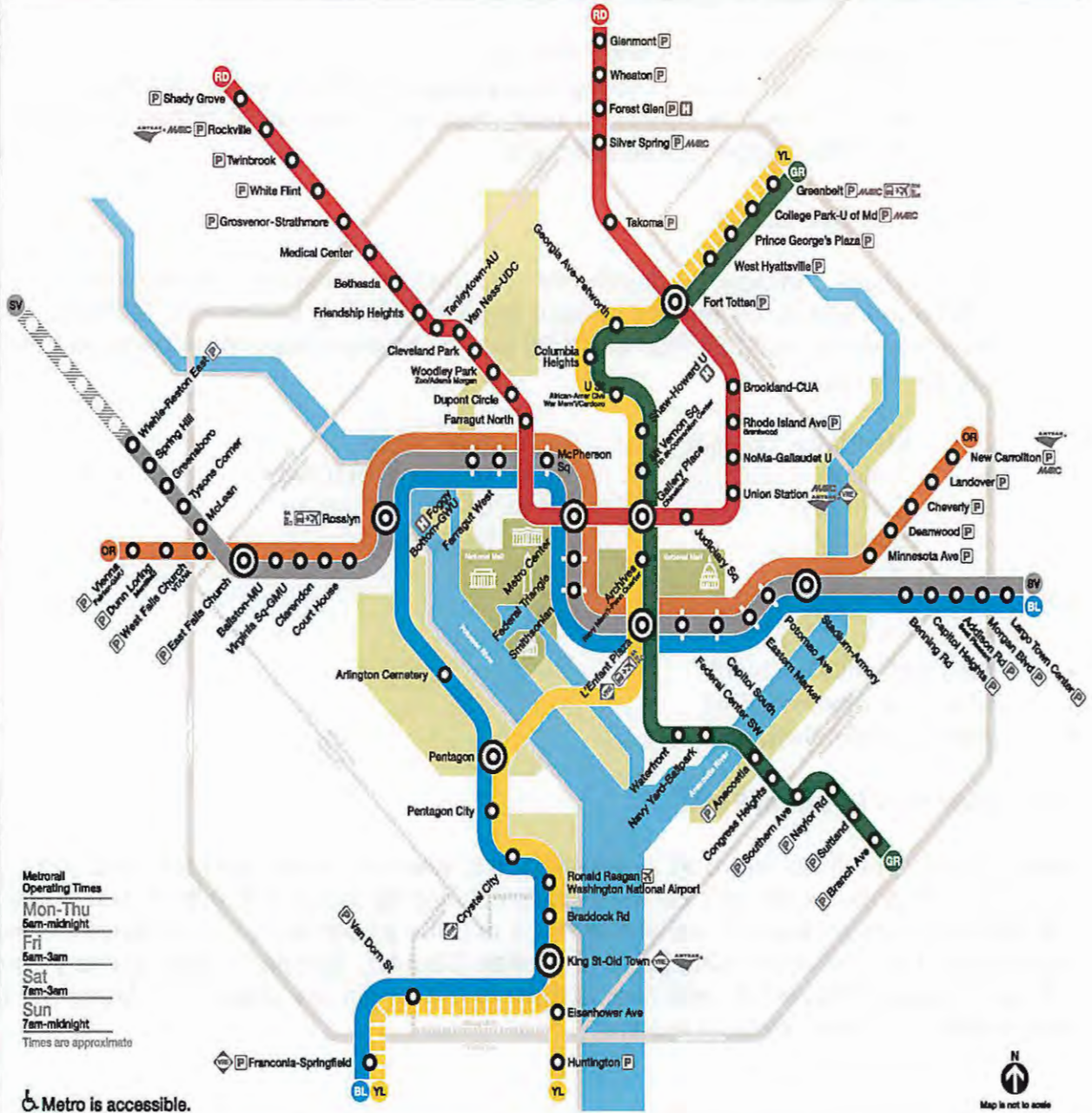
Station Features

- Bus to Airport
- Parking
- Hospital
- Airport

Connecting Rail Systems



Rush-Only Service: Monday-Friday
 6:30am - 8:00am 3:30pm - 6:00pm



- No Smoking
- No Eating or Drinking
- No Animals (except service animals)
- No Audio (without earphones)
- No Littering or Spitting
- No Dangerous or Flammable Items

Exhibit 3-1



3.3.1.1 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 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 Maps*. These maps are distributed to all jurisdictional emergency response units and fire departments.

3.3.1.2 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 cutting, and spare parts storage to support the Metrorail system are located at the Brentwood and Greenbelt yards. Maintenance, to include 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 Rail Car Maintenance (CMNT) is to initiate and successfully achieve a comprehensive maintenance program for rail cars and steel wheel non-revenue vehicles. Movements of trains are coordinated through the tower operator. The Office of Train Operations (RTTO) administration offices are also located in each yard.

3.3.1.3 Passenger Vehicles

WMATA Railcar Fleet Profile (as of June 27, 2013)

Railcar Manufacturer	Assigned Car Nos.	Service Implementation Dates	Fleet Size No. of Railcars in Use	% of Total
Rohr	1000-1299	1974-1979	270	25%
Breda	2000-3291	1983-1988	354	32%
Breda	4000-4099	1992-1994	100	9%
CAF	5000-5191	2001-2004	186	17%
Alstom	6000-6183	2005-2008	182	17%
Total			1092	100%

Source: [CENV](#)



On July 26, 2010, Metro awarded a contract to Kawasaki to manufacture the new 7000 Series rail cars, which will replace the 1000 Series cars, fulfilling a top safety concern of Metro.

All rail cars are flanged steel wheel rapid transit cars. The normal capacity of each Rohr vehicle is 175 passengers, Breda rail car is 187 passengers, the AAI/CAF rail car is 187 passengers and for the Alstom 6000 Series car, the normal capacity is 175 passengers. All rail cars are 75 feet long and 10 feet wide, have contoured seats, heating, ventilation and air conditioning. Trains consist of dependent married pairs of cars with a maximum train length of eight cars, 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.

3.3.1.4 Power Systems

The 750 volts, direct current (DC) traction power system provides the power source for vehicle propulsion. The traction power system includes 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 can be supplied by adjacent power substations, and is supplied by separate power company substations, wherever practicable, for additional reliability.

A 480/277 volts 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 (trailed) generators and 13 portable generators to provide power for safety critical equipment in the event of power loss.

The Office of Systems Maintenance (SMNT), in the Department of Transit Infrastructure and Engineering Services (TIES), is responsible for the control, maintenance, inspection, modification, overhaul, test and repair of the above-described systems. The Power Branch provides seven (7) days per week, twenty-four (24) hours per day coverage of the power systems.



3.3.1.5 Automatic Train Control System

The Automatic Train Control 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 the 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 interlockings, route security through interlockings 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 maintenance management policies and procedures are found in OAP 204-1-301. ATC provides twenty-four (24) hour 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 doing 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 quickly corrected 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.

3.3.1.6 Communications System

The Communication Branch (COMM) of SMNT 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 24 hours per day, 7 days per week. The WMATA telephone system is maintained by the IT Department. SMNT communications systems include:

- Metrorail Station Closed Circuit Television (CCTV) System, Metrorail Station Digital Video Recorder (DVR) System, 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 and Metrobus Division Fire and Intrusion Alarm (FIA) Systems, Yard Security System
- Metrorail Station and Metrobus Division Public Address Systems, Integrated Intercommunications System, Passenger Emergency Response System (PERS), Passenger Information Display System (PIDS)
- Environmental Monitoring Systems (Veeder Root/Gas Tank Leak Detection Systems), Methane Gas Detection Systems
- PROTECT system

3.3.1.7 Track and Structures

The Track Maintenance North Branch (TKMN) maintains all tracks associated with the entire Red Line and the northern portion of the Green Line including mainline and yards. Two-thirds of the work and workforce are scheduled on midnight shift; however, due to the limited non-revenue hours, a substantial amount of work is now performed during off-peak revenue hours. The administrative offices are located at the Plant Maintenance Center (PMC) at C99 Alexandria Yard in Alexandria, VA.

On a 24 hour, 7 days per week basis TKMN:

- Manages all maintenance and production work on the entire Red Line from Shady Grove to Glenmont, 44 miles of track;
- manages all maintenance and production work on the northern portion of the Green Line from Gallery Place to Greenbelt, 15 miles of track;
- manages assigned Capital Improvement Program/Infrastructure Renewal Program (CIP/IRP) programs for the entire Red Line and the northern portion of the Green line;
- manages running rail grinding, track geometry, ultrasonic rail testing and rail end welding for the entire Red Line and northern portion of the Green line;
- provides personnel and equipment support to other offices and contractors; and
- maintains the yard tracks within Shady Grove, Brentwood, Glenmont and Greenbelt yards.

The Track Maintenance South Branch (TKMS) maintains all tracks associated with the Orange, Blue, Yellow, and the southern portion of the Green Line including mainline and yards. The maintenance region offices are located in the Alexandria (C99) and New Carrollton (D99) maintenance yards. The administrative offices are located on the second floor of the TSSM Building in Alexandria Yard (C99).

The Track Inspections Branch (TKIN) is responsible for all track inspections throughout the entire Metrorail system. Within TKIN, there are two distinct sections working in unison: the inspectors and the Analytical/Technology (A/T) Center. The administrative



offices and A/T Center are located at the TSSM Building at Alexandria Yard in Alexandria, VA.

TKIN performs the following inspections:

- All mainline interlockings, monthly
- All yards, quarterly
- Coordinates automated inspections i.e., rail flaw, lateral load, geometry, ultrasound and component assessment

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

The Track Production Branch (TPRO) 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) is responsible for the coordination, scheduling and implementation of all structure maintenance activities (bridges and tunnels). The administrative offices are located at the TSSM Building in Alexandria, VA. Structures Maintenance for all lines is located at Alexandria Yard and the Carmen E. Turner Maintenance and Training Facility.

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

- Maintains tunnels (repair structure and leaks), 48.5 miles of tunnels;
- maintains aerial structures (bridges), 7 miles;
- 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.

3.3.2 Metrorail Safety Capabilities

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

3.3.2.1 Car Design

Metrorail cars 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 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 cars 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 cars also have an intercom box at the center of the rail car.

3.3.2.2 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 (AIM) system, 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 interlockings 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 and SMNT (ATC, Communications, Power and Automatic Fare Collection)
- CMNT and PLNT
- Road, terminal, and yard tower supervisors
- Local fire/rescue communications centers
- Metro Transit Police and local police
- Bus Operations Control Center
- 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.

3.3.2.3 Metrorail Stations

The Metrorail stations are operated by the Office of Train Operations (RTTO). The following safety provisions have been 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 located at each ETS 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 are installed at all rail stations to enhance security and aid incident investigations.
- Fire Equipment - Each station has a fire alarm control panel with a minimum of seven 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 ventilation fans that normally operate under thermostatic control to remove train-generated heat. In an emergency, these fans can be controlled 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.



3.3.2.4 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 the ROCC or the kiosk to passengers in the stations, and from the ROCC and 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 - 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 rail 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 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 is 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 91 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.
- Sidewalks with directional signs and lighting provide safe routes for pedestrians to travel from buses, surrounding streets and parking facilities to Metrorail stations.
- An emergency telephone system is installed in Metro parking structures.

3.3.3 Plant Maintenance Physical Plant

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 in the following rail yards: Alexandria, West Falls Church, Shady Grove, New Carrollton, Greenbelt, Glenmont and Branch Avenue. The construction support shop is located at 6211 Blair Road, NW, Washington, D.C.

WMATA's largest facility is the CTF; it is a 640,000 sq. ft. building located on 28 acres of land at 3500 Pennsy Drive in Hyattsville, MD. DGMO, BUS, RTRA, TIES, SAFE, OEM, HR and CSCM are assigned space in this facility. The new ROCC at CTF opened in September 2011.



3.3.4 Metrobus Physical Plant

The Metrobus system operates approximately 167,800 daily miles through the jurisdictions of Northern Virginia, the District of Columbia and Maryland. It consists of four (4) urban and six (6) suburban divisions as follows:

<u>Division</u>	<u>Location</u>
Bladensburg	2251 26 th 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 14 th Street, NW Washington, DC 20011
Royal Street	600 N. Royal Street Alexandria, VA 22314
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 and 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 2250 26th Street, NE, Washington, DC and the Four Mile Run Division located at 3501 South Glebe Road, Arlington, VA.



Metrobus has two (2) heavy repair shops located at the Carmen Turner Facility and the Bladensburg Division. The Carmen Turner Facility 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 1,960 vehicles and support equipment at the Bladensburg and Eisenhower Avenue service vehicle shops. Non-revenue service vehicle body repair work and new vehicle and equipment replacement is performed at the Carmen Turner Facility.

3.3.4.1 Bus Fleet

WMATA operates the sixth largest bus fleet in the United States with 1,527 active buses as of August 2013 of which 65, or 4.3% are articulated buses and 1,462 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 6.67 years, as of August 2013.

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. 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 comprised of the following power trains: Diesel, 15%; compressed natural gas (CNG), 30%; Hybrid, 45%; and Clean Diesel, 10%. The sub-fleets include buses manufactured by: New Flyer, Neoplan, Orion, NABI and Chevrolet, with model years ranging from 1997 to 2013. There are five (5) buses in the special and historical fleet. As of May 2013, there were 1,527 active buses, the peak service level was 1,283 buses, and the total fleet consists of 1,589 buses.

3.3.4.2 Metrobus Safety Capabilities

- S-1 Guards (installed in front of right rear wheel)
- On-board video recorders and cameras
- Silent alarm to 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

As of June 2012, 100% of WMATA's active bus fleet was equipped with Closed Circuit Television Cameras (CCTV). The bus CCTV system is comprised of between five (5) and nine (9) cameras depending on the subfleet configuration and records video on both the interior and exterior of the bus. This CCTV system acts as a deterrent against illegal or improper behavior on-board the bus (vandalism, theft, assault, etc.) and can 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.

WMATA's buses are also 100% 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 a five-year 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 will be used to encourage good driving habits, correct poor habits, and assist in investigations.

3.3.4.3 BMNT Training

BMNT has a training office located at the Carmen Turner Facility 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. This program is designed to ensure the Authority continues to meet the objectives of safe, reliable and efficient public transportation within its' jurisdiction. 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.

3.3.5 Administrative Facility

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

3.3.6 Support Services Physical Plant

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

The Metro Supply Facility (MSF), located at 8201 Ardwick-Ardmore Road in Hyattsville, MD is managed by the Office of Procurement and Materials (PRMT). Inventory Management, Classification, Warehousing, Purchasing, Logistics and Surplus Property Disposal are also located at this facility. PRMT also manages the Open Materials Storage facility 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 the Transit Police Revenue Protection Division. The Metro Transit Police District II Substation is located adjacent to the Huntington Station at 5801 N. Kings Highway, Fairfax, Virginia. A facility located at 195 Telegraph Road in Alexandria, Virginia houses offices and shops for SMNT.

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

3.3.7 New Construction

Currently, the Metropolitan Washington Airports Authority is constructing a rail line extension to Dulles Airport. After completion of the Safety and Security Certification process, Dulles Corridor will be turned over to WMATA for operation. The line connects with the existing Metrorail system at West Falls Church. The first five stations are scheduled to open mid 2014.

WMATA has recently awarded a contract to design and construct a new MTPD substation, training facility and shooting range near the Franconia-Springfield Metrorail station. Construction is expected to be complete in 2014.

3.3.8 Maintenance, TIES

Maintenance of all TIES vehicles, equipment and 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 and SAFE releases the cars back to CMNT for return to service. SAFE is notified when safety critical equipment is removed from service and of accidents via the SMS. MAXIMO also interfaces with SMS. SAFE reviews this information and will enter identified hazards into the Hazard Management Process. 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 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 MOC are performed in accordance with *Operations Administrative Procedures (OAP) No. 200-2*. The MOC notifies SAFE in the event of accidents and incidents, including hazardous substance releases. SAFE enters any identified hazards into the Hazard Management Process.

The performance of preventive maintenance activities on all rail transit cars and wayside equipment is performed in accordance with OAP 200-3. Unless directed otherwise by the appropriate AGM, approved preventive maintenance procedures shall comply with manufacturers recommended maintenance practices.

Corrective and supportive maintenance activities adhere to guidelines established by the following OAPs: 200-5, 200-9, 200-27, 202-5, 204-1, 208-1, 210-3, 210-4, 210-6, and CMNT SOPs 1.04, 1.05 and 1.06.

Calibration of test measurement and diagnostic equipment (TMDE) is performed in accordance with OAP 204-01, dated April 2012. 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 Metrology Laboratory is certified to ISO 10012 or ANSI Z540-1 standard in compliance with APTA RT-S-VIM-017-03 Rev. 1, dated November 2, 2006.

The Superintendent of the CMNT Shops is responsible for the calibration of TMDE in accordance with CMNT OAP 200-05.

The Rail Maintenance Support Manager of the Planning and Scheduling Branch is responsible for preparing monthly calibration schedules and schedule compliance reports and submitting them to managers of organizations who use test equipment and TMDE.



Calibration of test equipment and precision measurement equipment (PME) is performed in accordance with OAP 200-16. 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 management of the Electronics Shop at Brentwood, which is responsible for the calibration of test equipment and PME for car-borne equipment. The Rail Maintenance Support Manager of the Planning and Scheduling Branch is responsible for preparing monthly calibration schedules and schedule compliance reports and submitting them to managers of organizations who use test equipment and PME.

QAAW and CQAL monitor 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.

3.3.9 Maintenance, BUS

The mission of BMNT is to provide safe, clean and reliable buses for the riding public and ensure that WMATA's Non-Revenue Fleet of Vehicles are maintained in a safe, reliable 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 Practice Bulletins and established procedures. 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.



3.4 Integration of Safety Function

The safety function is integrated throughout all operations and activities of the Authority. 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 Leadership Team (ELT), who are responsible for implementing the requirements of this SSPP in their assigned departments.

The ELT delegates senior managers to include safety requirements, responsibilities and objectives into the work plans of managers and supervisors. Managers and supervisors are held accountable by the performance evaluation 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.

3.5 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 ELT to ensure the effective implementation of the SSPP throughout the Authority. The safety responsibilities and functions of the ELT are described in the sections below. Members of the ELT are noted in these descriptions as (ELT), which demonstrates the lines of authority for safety throughout the organization. ELT members are also identified on the WMATA organization chart (see exhibit 3-2).

3.6 Organizational Safety Responsibilities

The WMATA GM/CEO has been charged by the Board of Directors, with implementing the WMATA System Safety Program consisting 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 D illustrates the current WMATA organization. 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, collisions resulting in \$25,000 or more in property damage and on accidents being investigated by the NTSB and/or the TOC.

3.6.1 Department of Safety and Environmental Management

The Chief Safety Officer, Department of Safety and Environmental Management (SAFE) (ELT) 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 audit process. Additionally, the CSO has responsibility for oversight of construction safety, safety and security certification, safety data collection and analysis, industrial hygiene, safety training, safety program implementation, regulatory compliance, environmental protection, corporate quality assurance and monitoring the implementation of the *System Safety Program Plan* (SSPP). SAFE interfaces with all WMATA departments at all levels of the organization.

The CSO meets formally with the GM/CEO at least monthly in one-on-one meetings to provide updates on safety issues, safety priorities and hazard management. The CSO also meets informally with the GM/CEO on an as-needed basis, usually daily, to provide updates on safety issues. The CSO participates in the weekly ELT meetings to update the ELT 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 ELT receive monthly safety reports generated from the Safety Measurement System (SMS) including accident and injury data, the Hazard Management Module and the Corrective Action (CAP) Tracking Log. This information will keep the GM/CEO, ELT and members of the ESC apprised of progress in implementing corrective actions and recommendations from investigations, safety and security audits 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 TOC (rail only corrective actions) must approve permanent corrective actions prior to formal implementation by RTTO, RTRA and TIES. SAFE monitors and tracks the implementation of corrective actions in accordance with section 11 of the TOC PS/P.

3.6.2 Metro Transit Police Department

The Chief of the Metro Transit Police Department (MTPD) (ELT) 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 *Code of Federal Regulations* title 49, part 659 and TOC PS/P section 13 are developed and maintained by MTPD separately from this document (in the SEPP) to ensure confidentiality.

3.6.3 Office of Chief of Staff

Metro's Office of the Chief of Staff (CHOS) 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. In this capacity, CHOS:

- Provides oversight of all Metro departments to help create results that align with Metro's vision, mission, values, and goals;
- monitors and follows-up on all requests and directives from GM/CEO;
- manages special projects as directed by the GM/CEO;
- coordinates with the Office of the Board Secretary on accident and incident notification to the Board members, Board committee materials, meeting preparation, and member relations;
- maintains Metro's *Policy/Instruction Manual* and coordinates any necessary updates with the initiating office, General Counsel, and the ELT;
- approves all Metro travel requests and coordinates with the Office of Accounting (ACCT) on travel policy;



- coordinates audit reports that are addressed to the GM/CEO with the Office of Inspector General and relevant Metro departments;
- assists with Metro's strategic communications to employees, Board members, customers, and other stakeholders; and
- reviews responses to Public Access to Records Policy (PARP) requests including hearings on PARP request appeals.

3.6.3.1 The Office of Government Relations and Policy

The Office of Government Relations and Policy (GOVR) is responsible for providing information and resources to WMATA internal stakeholders (Board of Directors and staff) on important governmental issues that affect the Authority and for building relationships with WMATA funding partners in Federal, state, and local governments. GOVR also assists Authority staff in keeping abreast of current government policy and in obtaining sufficient funding, so that WMATA can best provide safe, secure and efficient public transportation to the National Capital Region.

3.6.3.2 Office of Planning

The Managing Director, Office of Planning (PLAN) reports to the CHOS and is responsible for developing a long-range vision for transit service in the region, to represent the Authority in regional and local planning activities, and to identify, analyze, evaluate, and advance transit projects that are best aligned with the Authority's vision and goals.

3.6.3.3 Office of Performance

The Office of Performance (CPO) (ELT) reports to the CHOS and is responsible for developing and tracking organizational performance measures and metrics, including safety related performance measures and metrics that are tied to Metro's strategic plan; process improvement and reengineering; organizational structure; and alignment of employee performance management programs with organizational goals.

3.6.3.4 Office of Strategic Communications and Marketing Planning

The Office of Strategic Communications and Marketing Planning (SCOM) reports to the CHOS and is responsible for the development of integrated strategic communications and marketing plans that engage Metro's business plan, objectives, and enhance Metro's image among multiple audiences and stakeholders. In particular, the Office of Strategic Communications and Marketing Planning oversees the production of materials to execute communication, marketing plans or communicate individual projects or initiatives; initiates and prepares messaging or strategic communications direction for internal and external programs, as well as provides support for Board communications; and reviews and recommends approval for all programs, policies, and policy instructions on how Metro communicates with external and internal audiences.



3.6.4 Department of Human Resources

The Chief, Department of Human Resources (HR) (ELT) reports to the GM/CEO and is responsible for human resources, administrative training, maintaining a central training database, organization development, equal employment opportunity, disadvantaged business enterprise programs, employee programs, and administrative programs and services. The Medical Services and Compliance Branch has the responsibility for administering the Substance Abuse and Employee Assistance Programs; and maintaining compliance with the FTA alcohol and drug testing regulations. The Medical Services and Compliance Branch also provides medical surveillance for occupational illness when the need is identified by studies performed by Environmental Management and Industrial Hygiene (EMIH).

3.6.5 Deputy General Manager Operations (DGMO)

The Deputy General Manager for Operations (ELT) reports directly to the GM/CEO and is responsible for the day-to-day management of the safe operation and maintenance of the region's Metrorail system. The DGMO is also responsible for program planning and energy, vertical transportation, plant and facility maintenance, systems maintenance, engineering services and employee and labor relations. The DGMO coordinates the activities of the Managing Director of Rail Transportation (RTRA), and the Assistant General Manager for Transit Infrastructure and Engineering Services (AGM/TIES), to manage the activities of over 5,000 operation, maintenance, engineering and support employees, a \$0.9 billion annual operating budget as well as a six-year Capital Improvement Program worth approximately \$5.0 billion.

The DGMO collaborates with the CSO and all members of the ELT 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 Metrorail personnel. The DGMO also collaborates with the ELT to allocate the necessary resources so that WMATA can fulfill its safety and security responsibilities and activities. The DGMO ensures that Corrective Action Plans (CAPs) are developed and implemented by responsible personnel, in collaboration with the CSO and the TOC, 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 DGMO 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 and vulnerabilities and emergencies that occur in the Metrorail system.

The DGMO 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 DGMO monitors operating performance, facilitates



problem resolution and directs efforts and programs to achieve continuous improvement in rail service safety, security and quality. The DGMO ensures that RAIL managers and supervisors establish specific safety objectives and work plans, for their direct reports that support the achievement of customer and employee safety objectives and Metrorail Key Performance Indicator objectives in a safe manner.

In collaboration with the AGM/TIES, the DGMO oversees the engineering, preparation of plans and specifications, cost estimates and contract documents for construction (including the Dulles Corridor and 7000 Series rail cars), rehabilitation, maintenance and service contracts for transit facilities and vehicles. The DGMO is responsible for making informed decisions in the approval of the design of new transit system facilities and equipment, rehabilitation/modification of existing transit system facilities and equipment.

The DGMO oversees and monitors the technical training for all organizational elements within the DGMO organization.

3.6.5.1 Office of Rail Transportation

The Managing Director for Rail Transportation reports directly to the DGMO. The Managing Director has been delegated by the DGMO, the day-to-day responsibility for the safe operation of the Metrorail system through the Director of the Rail Operations Control Center (ROCC) and Director of Train Operations (RTTO). In addition, the Managing Director of RTRA is responsible for Rail Operations Scheduling (ROSC), Rules, Procedures, Quality Control, and Rail Operations Quality Training (ROQT). The Managing Director, RTRA has the responsibility to provide job related safety training for RTRA personnel and to ensure compliance with the MSRPH, 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.

3.6.5.2 Office of Operations Management Services

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



The Technical Skills and Maintenance Training Branch provides maintenance-training support for RCMNT, PLNT, ELES, TRST and SMNT. The Cardozo High School Partnership is also administered through this branch.

The Technical Skills Program supports CMNT, 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.

Open Door 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.

3.6.5.3 Office of Employee and Labor Relations

The Director of the Office of Employee and Labor Relations (LABR) reports to the DGMO. 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 impact our unionized workforce
- Investigating and resolving formal and informal grievances and disputes with our unionized workforce
- Representing the Authority in grievance arbitration cases



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

3.6.6 Department of Transit Infrastructure and Engineering Services

The Assistant General Manager for Transit Infrastructure and Engineering Services (AGM/TIES) reports to the DGMO and is responsible for TRST, SMNT, CMNT, PLNT, ELES, Chief Engineer, Infrastructure (CENI), Dulles Corridor, Chief Engineer Vehicles (CENV), Quality Assurance and Warranty (QAAW), Storeroom and Material Logistics (SRML) and Intermodal Strategic Planning (IPLN).

The TIES offices coordinate with SAFE, RTRA, RTTO and other Authority offices and departments and the TOC to ensure that hazards are quickly and effectively eliminated. This includes the development of proposed Corrective Action Plans (CAPs), in collaboration with SAFE, for identified hazards and deficiencies in complying with requirements for the SSPP, in accordance with section 11 of the TOC PS/P. Proposed CAPs are forwarded to SAFE, which submits the CAPs to the TOC for its review and approval. The AGM/TIES and the Managing Director, RTRA and the Director, RTTO are responsible for the implementation of the TOC approved CAPs and for providing the required verification that the CAP effectively controls or reduces the hazard.

The AGM/TIES has the responsibility to provide job related safety training for TIES personnel and to ensure compliance with the MSRPH, OAPs, applicable safety rules and regulations. The AGM/TIES is also responsible for construction safety functions for those capital improvement projects (CIP) managed by TIES, which could include construction or modification of power, ATC, communications, track, tunnel structures, aerial structures and yards and procurement of rail vehicles. Safety related procedures for Metrorail maintenance activities are included in the MSRPH and OAPs.

3.6.6.1 Office of Rail Car Maintenance

The Office of Rail Car Maintenance (CMNT) is responsible for implementing a comprehensive maintenance program for revenue rail cars and steel wheel non-revenue vehicles that ensures the availability of safe, reliable and clean rail equipment to meet passenger demands. CMNT follows OAP Series 202 for its maintenance activities. CMNT provides coverage 24 hours per day, seven (7) days per week.

3.6.6.2 Office of Track and Structures

The Office of Track and Structures (TRST) is responsible for providing a safe and reliable rail system through comprehensive inspection, maintenance, and rehabilitation programs that enhance the condition of the tracks, guide-ways, structures, and wayside systems. TRST develops issues, maintains and complies with the *Track Standards Manual* to ensure safe and reliable track for passenger service through consistent and effective track maintenance practices. Maintenance of Structures adheres to OAP 208-



02, *Structures Maintenance Management, and Maintenance of Way*. Track and Structures provides 24 hours per day, seven (7) days per week coverage.

3.6.6.3 Office of Systems Maintenance

The Office of Systems Maintenance (SMNT) is comprised of the Power Branch (POWR), Automatic Train Control Branch (ATC), the Communications Branch (COMM), the Automatic Fare Collection Branch (AFC) and the Shops and Material Support Branch (SAMS).

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 support for Start-up activities. Power personnel inspect, modify, overhaul, test and repair power distribution switchgear, lighting systems, associated electrical equipment and cables.

The Automatic Train Control (ATC) Branch of SMNT ensures the availability of wayside equipment and personnel in order to guarantee continuous safe, effective and economic rail operation. The 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 Communications Branch is responsible for the maintenance and availability of the Authority's communications systems in support of bus and rail operations.

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

The Shops and Material Support Branch 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.

3.6.6.4 Office of Plant Maintenance

The Director, Office of Plant Maintenance (PLNT) has been assigned, by the AGM/TIES, the responsibility for the safe maintenance of WMATA facilities and equipment including the Jackson Graham Building and CTF. PLNT coordinates with BUS, RTRA, RTTO, SAFE, CENI 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 and OAPs.

3.6.6.5 Office of Elevators and Escalators

The General Superintendent, Office of Elevators and Escalators (ELES) has been assigned, by the AGM/TIES the responsibility for the safe operation and maintenance of WMATA elevators and escalators (vertical transportation). ELES will coordinate with RTRA, RTTO, SAFE, CENI and other offices and 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*.

3.6.6.6 Office of Chief Engineer Vehicles

The Chief Engineer, Vehicles (CENV) reports to the AGM/TIES. 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 stake holders (e.g., CMNT, PRMT, QAAW, SAFE, COUN, RTTO and RTRA) the delivery and acceptance of railcars which meet 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 cars 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 properly and effectively maintained through preventive and corrective maintenance and that all records and data pertaining to the assets are accurate, reliable and controlled.



3.6.6.7 Office of Chief Engineer, Infrastructure

The Chief Engineer, Infrastructure (CENI) reports to the AGM/TIES and is delegated the responsibility for the acquisition, construction and for completing the safety and security certification process (with SAFE) for new facilities, and systems. This responsibility includes the research, planning, design, engineering, construction, manufacturing and testing of all new facilities and systems. CENI is responsible for the safe delivery of infrastructure renewal projects, managing adjacent construction and managing joint development projects. In addition, CENI is responsible for maintaining, updating and publishing the WMATA *Emergency Response Maps*. The Chief Engineer has established procedures to ensure CENI's compliance with applicable safety requirements for all projects assigned to CENI. CENI, in conjunction with SAFE, has been assigned primary responsibility for implementing the WMATA Construction Safety Program and to monitor construction phase activities performed by WMATA's construction contractors. This program consists of the following major elements:

- Construction Safety Program and Procedures
- OSHA Construction Training/Orientation
- Work site implementation of the WMATA Construction Safety Program
- Contractor RWP Training

Contracts are typically submitted to SAFE and MTPD for review prior to advertisement to ensure that contracts include the necessary requirements for construction safety and for safety and security certification. The *Coordinated Safety Program and Reporting Procedures* are included as a contract document in those contracts where an Owner Controlled Insurance Program is provided. *The Construction Safety and Environmental Manual* is included in those contracts where the contractor is required to provide its own insurance.

3.7 Department of Bus Service

The Assistant General Manager for the Department of Bus Service (AGM/BUS) (ELT) reports to the GM/CEO. The AGM/BUS has been delegated, by the GM/CEO, as the responsible officer 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 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
- WMATA essential personnel

3.7.1 Office of Bus Maintenance

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 three (3) 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 ten (10) 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 manages functions which 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.

3.8 Deputy General Manager, Administration and Chief Financial Officer

The Deputy General Manager, Administration/Chief Financial Officer (DGMA/CFO) (ELT) reports directly to the GM/CEO and has the responsibility for the Offices of Accounting, Treasurer, Financial Management, Insurance, Procurement, Risk Management, Information Technology (IT), Capital Programming and Oversight and SmarTrip Program and Fare Payment System. The DGMA/CFO has responsibility for the MetroAccess (paratransit) system.

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 TIES prior to advertisement.

3.8.1 Office of Accounting

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

3.8.2 Office of Treasurer

The Office of the Treasurer (TRES) is responsible for cash management, disbursement of payroll and accounts payable checks, disbursement of petty cash and for risk management. The Cash Management Section receives and collects cash revenue,



records, invests, disburses and reports on the Authority's cash flow. The disbursing office distributes payroll and account payable checks and disburses petty cash funds. 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 the administration of the Workers' Compensation Program, Third Party Claims and the Authority's insurance program. RISK's third party database is a source of safety data for the Hazard Management Program.

3.8.3 Office of Management and Budget Services

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

- Developing and executing the annual operating and capital budgets
- Reporting to the GM/CEO and Board of Directors on Metro's current financial status and year-end forecast
- Developing a comprehensive six-year capital program and funding agreement
- Analyzing and monitoring capital expenditures
- Representing the financial interests of Metro in labor contract negotiations
- Forecasting long-range revenue and expense

3.8.4 Office of Procurement and Materials

The Office of Procurement and Materials (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.

3.8.5 Department of Access Services

The Assistant General Manager, Department of Access Services (AGM/ACCS) (ELT) has been delegated by the GM/CEO and DGMA/CFO 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.

3.8.5.1 Office of ADA Policy and Planning

The mission of the Office of ADA Policy and Planning (ADAP) is to promote 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:

- Coordinates WMATA activities with the disability community and stakeholders
- Regularly inspects WMATA's facilities and equipment for ADA and ADAAG compliance
- Assists in developing quality assurance processes, procedures and standards to assure ADA compliance
- Coordinates review of plans and specifications for ADA content in the design and construction or acquisition of additional or altered physical plant facilities and equipment
- Provides technical assistance on ADA matters including coordination with COUN, on changes in the law, regulations or court decisions
- Corresponds with the FTA, other federal agencies and local jurisdictions on ADA matters
- Provides access information and support to WMATA's customers with disabilities
- Serves as a standing member of WMATA's Reasonable Accommodations Committee
- Provides support to WMATA's Seniors and Customers with Disabilities Transportation Advisory Committee.

3.8.5.2 Office of Eligibility Certification and Outreach

The mission of the Office of Eligibility Certification and Outreach (ELIG) is to determine the eligibility of customers to use bus and rail at 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 offering educational services to help maximize the customer's safe use of our system.



3.8.5.3 Office of MetroAccess Service

The mission of the Office of MetroAccess Service (MACS) is to provide 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.

3.8.6 Department of Information Technology

The Assistant General Manager, Information Technology, (AGM/IT) (ELT) reports to the DGMA/CFO and is responsible for developing and maintaining the Authority's Enterprise Architecture and enhancing business processes in the areas of budget, planning and scheduling and procurement. As the Authority continues to grow, other responsibilities include researching and implementing new technology systems to enhance transit services and fare collection and support the Authority in an IT capacity.

The AGM/IT is responsible for maintaining all electronic, interactive and integrated services for all of SAFE's SMS 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
- Ridership real-time reports



3.8.7 Office of Parking

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.

3.8.8 Office of Real Estate and Station Planning

The Office of Real Estate and Station Planning (LAND) is currently preparing sites for development. We are working to achieve internal agreement for elements involved with station area planning to be able to integrate development with an overall TOD plan for property adjacent to stations. LAND is also working with outside agencies and members of the development community to build a consensus for a final plan that is economically feasible and meets Metro's operational requirements. Reduced uncertainty and a faster time to "shovels in the ground" will attract a broader range and a higher caliber of developers. This will enable us to maximize value.

3.9 Department of Customer Service, Communications and Marketing

The Assistant General Manager, Customer Services, Communications and Marketing (AGM/CSCM (ELT) reports to the GM/CEO and has responsibility for government relations, public relations, marketing and advertising customer service and customer research.

3.9.1 Office of External Relations

The Office of External Relations (EREL) is responsible for promoting public understanding of and support for WMATA activities, policies and initiatives. We reach out to the communities we serve, foster relationships and seek community participation in WMATA's decision-making processes. We value public participation and respond to our community and business stakeholders concerns and requests. We want to ensure that WMATA's external strategic communication programs are inclusive and accessible. Our goal is to build trust in the communities we serve and raise the awareness about WMATA's programs and services.

3.9.2 Office of Customer Service

The Office of Customer Service (CSVC) is responsible for the sale of WMATA's SmarTrip® cards and fare media, the Customer Information Call Center, Customer Relations Branch 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 relations specialists receive over 4,000 correspondences and 15,000 e-Mails annually. Lost and Found processes over 25,000 items annually.

Customer safety concerns and complaints received by CSVC are submitted to SAFE for review and resolution. CSVC and SAFE track these concerns and complaints to closure. SAFE enters any identified hazards into the Hazard Management Process.

3.9.3 Office of Marketing

The Office of Marketing (MKTG) draws on the skills, creativity and expertise of 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.

3.9.4 Office of Customer Research

The Office of Customer Research (RESR) is responsible for bringing the voice of the customer to life at WMATA. Through surveys, reports, and other means, RESR discovers the motivations, needs and desires of our customers. This helps Metro management and other personnel deliver a superior service that meets our customers' expectations.

3.9.5 Office of Public Relations

The Office of Public Relations (PREL) consists of three groups: Strategic Communications, Media Relations and Executive Correspondence Team.

3.9.5.1 Strategic Communications

The Strategic Communications 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.

3.9.5.2 Media Relations

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.

3.9.5.3 Executive Correspondence Team

The Executive Correspondence Team (ECT) manages the flow of Metro's high-priority and policy-related external communications. Letters, faxes and e-mails that need escalated attention from senior staff or the Executive Leadership Team (ELT) are routed to ECT, where they are entered in Metro's Customer Relationship Management (CRM) database for tracking, assignment, routing and reply. ECT staff work directly with offices at every level throughout the Authority to develop content for use in replies to correspondence and other collateral materials.

3.10 Office of General Counsel

The Office of General Counsel (COUN), (ELT) reports to the GM/CEO and is responsible for planning, directing and providing substantially all of the legal services provided to the Authority. COUN's role is not only to protect the Authority's legal interests, but also to serve as a pro-active problem-solving and problem-avoidance resource for the Authority's policymakers and managers. COUN's organizational structure and staffing have been developed specifically to meet these objectives and to provide an effective mechanism for providing required legal services at the lowest possible cost.

3.11 Office of Inspector General

The Office of the Inspector General (OIG) (ELT) reports to the WMATA Board of Directors and is responsible for providing independent, objective management assurance audits and consulting services to WMATA departments. The office works to identify and evaluate revenue and cost risks and vulnerabilities; formulate, plan and implement operational audits, financial audits, control risk self-assessments, information systems reviews and audits, investigations and inspections. The purpose of the audits is to evaluate reliability of financial data and reporting, protect WMATA assets, and assess economy and efficiency of operations and the conformance with program objectives and to identify and/or detect misconduct, mismanagement, waste, fraud or abuse. 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.

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 TOC, APTA, industry safety peer reviews, and other regulatory agencies. The update process begins no later than June 30th with input requested no later than July 31st. An updated draft SSPP is circulated to all WMATA departments no later than September 30th with a courtesy copy forwarded to the TOC at this time. The final draft SSPP will be delivered to TOC by November 30th.

4.3 SSPP Review and Approval by the State Oversight Agency

TOC requires that WMATA/SAFE conduct the annual review of its SSPP and submit a revised document prior to January 1 of each year. WMATA must include an identification and explanation of changes for TOC review and approval. The revised SSPP is reviewed by executive management, the ESC, approved by the GM/CEO, and presented to the Board of Directors Safety and Security Committee.

4.4 SSPP Change Management

In addition to annual updates, TOC requires that WMATA identify changes that require modification of the SSPP on an on-going basis. WMATA/SAFE must incorporate necessary changes in the SSPP and submit these changes to TOC for approval, within 45 calendar days of the date of the change.

TOC may request modifications to WMATA's SSPP due to internal safety audit report results, on-site reviews and investigations, changing trends in accident/incident or security data, or other reasons that may come to the attention of TOC. Upon receipt of a written request for SSPP modifications from TOC, WMATA must submit a revised SSPP within 30 calendar days.



Within 45 calendar days of receipt of the revised SSPP, TOC will issue a response stating that it, either approves, conditionally approves, or is unable to approve the SSPP, along with checklists used to review the SSPP. If TOC conditionally approves or is unable to approve the SSPP, WMATA will have 30 calendar days to address noted deficiencies and requested changes in the plan and submit a revised SSPP to TOC. TOC, at its discretion, may arrange for a meeting with WMATA to discuss the noted deficiencies and requested changes. In the event WMATA objects to a noted deficiency or requested change from TOC, it must state its objections and suggest alternatives within 30 calendar days. The revised and updated SSPP must be submitted to TOC for review and approval within 30 calendar days after agreement on a course of action.

The SSPP may be delivered to TOC in a format agreed to by TOC (electronic). Once the SSPP has been approved by TOC, WMATA must submit a copy to TOC in an unalterable format (electronic or hard copy) with all required WMATA approval signatures visible.



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, safety training and for monitoring the effectiveness (via the Internal Safety and Security Audit Program) of the implementation of the SSPP. The CSO is responsible for advising 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 Assistant Chief Safety Officer (ACSO) the day-to-day operational leadership of the department and responsibility for establishing and implementing policies, procedures and programs to ensure that SAFE is effectively implementing its responsibilities under the SSPP. The ACSO provides management direction for the Hazard Management Program, accident and incident investigations and the Internal Safety and Security Audit Program. 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 TOC in matters relating to the Hazard Management Process. The CSO has delegated the Deputy Chief, Occupational Safety and Health (OSH) with implementing the employee safety, industrial safety, corporate safety and occupational safety training aspects of the SSPP. In addition, the Deputy Chief, OSH 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, industrial hygiene and occupational health 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 Deputy Chief, Corporate Quality Assurance (CQAL) has been delegated the responsibility, by the CSO, for corporate quality assurance including developing and issuing a corporate *Quality Assurance Program Manual* and monitoring compliance with an effective quality assurance audit program, to include internal safety and security audits.



5.2.1 Methodology Used by the System Safety Organization

SAFE uses the following methodologies to ensure a proactive approach to safety:

- Continuous hazard management process
- Accident and incident investigation process
- Safety data collection and analysis and review of MAXIMO reliability and failure data using SMS
- Continuous internal safety and security audit process
- Facility, equipment, systems and vehicle inspections
- 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
- Regularly communicating safety and hazard data to GM/CEO, the ELT, directors, managers, supervisors and employees via SMS, direct personal contact and a multi-tier safety committee process

5.3 Safety Responsibilities of Other Departments

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 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 can determine if the content of the procedures and plans is safety related. SAFE is included in the review process of all *Policy/Instructions*.

5.3.1 Environmental Management

All industrial, maintenance, support and construction activities of the departments of Human Resources (HRMS Medical Services Branch), BUS, CFO (PRMT, Revenue Collection Facility), TIES, RTTO, MTPD, and PLJD, 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), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Noise Control Act (NCA), Air Pollution Control Act (APCA), the 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 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.1, December 18 2002), *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.

5.3.2 Safety Committees

The Executive Safety Committee (ESC) and necessary subcommittees are established to ensure all aspects of the *System Safety Program Plan* (SSPP) are fully implemented and to ensure coordination of safety issues among departments. This 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: Hazard Management Process, Internal Safety and Security Audit Process, Environmental Management Audit Process, the Safety and Security Certification Process and implementation of TOC 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.

Members include:

- General Manager and Chief Executive Officer;
- Chief of Staff;
- Chief of Metro Transit Police Department;
- Deputy General Manager, Operations;
- Deputy General Manager, Administration/CFO;
- Assistant General Manager, Bus Services;
- Assistant General Manager, Transit Infrastructure and Engineering Services;
- Managing Director, Rail Transportation;
- Assistant General Manager, Access Services;
- Chief Human Resources Officer;
- General Counsel;
- Assistant General Manager, Information Technology;
- Assistant General Manager, Customer Service, Communications and Marketing;
- Chief Performance Officer;



Assistant Chief Safety Officer (Vice-Chair);
Deputy Chief, Rail Safety;
Deputy Chief, Bus and MetroAccess Safety;
Deputy Chief, Environmental Management;
Deputy Chief, Corporate Quality Assurance;
Deputy Chief, Occupational Safety and Health;
Representatives of the Tri-State Oversight Committee (Metrorail issues only);
Union representatives;
Other members as appointed by the Chairperson

The Inspector General is a participant in the ESC.

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. Metro currently has DSCs for bus, rail, and Access Services. 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 shall be forwarded to the ESC. DSCs are authorized to re-structure membership as required by their needs.

Local Safety Committees 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 shall 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 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).

Depending on the project, members of the SCRC include:

CSO, or designee, (Chair);
Chief, CENI, or designee;
Chief Engineer, Vehicles;
Managing Director, Rail Transportation;
General Superintendent, TRST;
General Superintendent, SMNT;



General Superintendent, CMNT;
General Superintendent, ELES;
General Superintendent, BTRA;
Managing Director, BMNT;
Director, Plant Maintenance;
Chief, MTPD, or designee;
Director, ADA Policy and Planning
TOC representative (for Metrorail projects only);
Representatives of OEM;
Other representatives assigned by the Chair in accordance with the SSCP

5.3.3 Safety Recognition

Safety recognition awards acknowledge individual safety achievement. Currently established safety awards for WMATA employees are:

- Lost-Time Program
- Safe Driver Award
 - Bus, in conjunction with SAFE, provides safe driving awards to recognize bus operators with excellent safety records
 - Access Services, in conjunction with SAFE, provides safety awards to recognize operators with excellent safety records
 - Access Services' contractors administer safety award programs that recognize operators, supervisors and maintenance staff
- Rail Safety Award
 - RTTO, 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
- 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. BMNT also provides gift cards or checks (direct deposit) to each employee at an Office/Division/Shop if the entire location reaches 100 consecutive days without a lost time accident (workplace accident, filed with Workers' Compensation where an



employee loses time from work). The monetary award increases with each additional 100 days without a lost time accident. This results in awards at 100 days, 200 days, 300 days and 365 days. The count goes back to “0” following each lost time accident and at the beginning of each year.

WMATA recognizes “Champions of Safety” at an annual safety recognition ceremony. This program recognizes the accomplishments of our front-line employees in our Operations departments who have reached milestones in the safe operation of transit vehicles, and those that provide crucial support services that enables the safe operation of transit vehicles. The Champions of Safety Recognition Program directly supports Metro’s safety improvement initiatives whose focus is improving our safety culture, adopting business practices that encourages a safer work place, and positions WMATA to be the best transit system in the nation.

5.3.4 Medical Surveillance

SAFE assists the Medical Services and Compliance Branch 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/Medical Services and Compliance Branch to monitor employee exposure to chemical and physical hazards within acceptable guidelines and/or regulatory limits. HR programs include drug and alcohol compliance, hearing conservation, respiratory protection and management of sleep apnea, diabetes, and high blood pressure.

5.4 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.

5.4.1 Complaint Investigations

WMATA employees can submit safety concerns and complaints to SAFE through the Safety Hotline (202-249-SAFE), the SAFE Website or through direct contact with a SAFE staff member. Customer safety complaints received by CVSC 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, if requested, is maintained for complaints investigated by SAFE. If hazards are identified during the investigation process, they are entered into the Hazard Management Process by the SAFE investigator assigned to manage the complaint. SAFE provides evidence of successful resolution of the complaint to CVSC and the OIG for complaints originating from those offices.



5.4.2 Investigation of Repetitive Events

The SAFE Data Analyst reviews SMS, 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, SAFE will conduct an investigation to determine the cause. Identified hazards are entered into the Hazard Management Process.

5.4.3 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 shall be carried through into the design review process. Safety design reviews are performed by SAFE to: assess the compliance of facility or equipment design with safety, fire, and environmental regulations and requirements in specifications and 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 TIES construction, and TIES infrastructure renewal program (IRP) projects, joint development, adjacent construction projects and vehicle procurement.

TIES 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 shall be allotted for the SAFE design review. PRMT shall ensure that all SAFE modifications and revisions of designs and specifications are included in contracts prior to advertisement. However, if SAFE comments are received after the date stipulated by the project schedule, alteration of documents, prior to bid, will be conducted through the amendment process. Identified hazards are entered by SAFE into the Hazard Management Process.

5.4.4 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.

5.4.5 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, Local Safety Committees and Safety Facility Improvement Programs. Safety Officers are assigned to the Red Line, Blue/Orange Line and Yellow/Green Line to provide safety services to RTTO'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.

5.4.6 State of Maryland Division of Labor and Industry

SAFE is responsible for reporting occupational fatalities and multiple hospitalizations of three (3) or more employees within eight (8) hours of an accident that occurs at WMATA facilities in Maryland to the Maryland Division of Labor and Industry, Occupational Safety and Health Service (MOSH).

SAFE is to be notified immediately of the arrival of MOSH inspectors at any Authority facility for the purposes of conducting inspections or investigations. SAFE is the Authority's primary point of contact with MOSH. 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 MOSH citations and for requesting hearing or contesting citations in conjunction with COUN.

WMATA contractors working in Maryland are required to comply with MOSH standards including reporting requirements. Therefore, the Authority must establish contract requirements that require contractors comply with MOSH standards and monitor the effectiveness of such compliance

5.4.7 Commonwealth of Virginia Department of Labor and Industry

SAFE is responsible for reporting occupational fatalities and multiple hospitalizations of three (3) or more employees within eight (8) hours of an accident that occurs at WMATA facilities in Virginia to the Virginia Department of Labor and Industry, Occupational Safety and Health Service (VOSH).

SAFE is to be notified immediately of the arrival of VOSH inspectors at any Authority facility for the purposes of conducting inspections or investigations. SAFE is the Authority's primary point of contact with VOSH. Copies of all VOSH citations received at a facility are to be immediately provided to SAFE. SAFE is responsible for submitting the Authority's response to VOSH citations and for requesting hearings or contesting citations in conjunction with COUN.

WMATA contractors working in Virginia are required to comply with VOSH standards including reporting requirements. Therefore, the Authority must establish contract requirements that require contractors comply with VOSH standards and monitor the effectiveness of such compliance.



5.4.8 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 OSHA, 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.

5.4.9 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 responsible departments. A key to acronyms used in the *Safety Responsibilities and Task Matrix* is included below:

P	Primary Responsibility
S	Secondary Responsibility
R	Review and Comment
A	Audit Responsibility
ACCS	Department of Access Services
BUS	Department of Bus Service
BTRA	Office of Bus Transportation
BMNT	Office of Bus Maintenance
CENI	Office of Chief Engineer, Infrastructure
CENV	Office of Chief Engineer, Vehicles
CFO	Department of Finance
COUN	Office of General Counsel
CSCM	Department of Customer Service, Communication and Marketing
CSVC	Office of Customer Service
CMNT	Office of Rail Car Maintenance
JGB	Jackson Graham (Metro HQ) Building
MACS	Office of MetroAccess Service
MTPD	Metro Transit Police Department
OPMS	Office of Operations Management
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PLNT	Office of Plant Maintenance
PREL	Office of Public Relations
PRMT	Office of Procurement and Materials
RADS	Office of Replication and Digital Services
RCF	Revenue Collection Facility
RISK	Office of Risk Management



RTRA	Office of Rail Transportation
RTTO	Office of Train Operations
SMNT	Office of System Maintenance
TIES	Department of Transit Infrastructure and Engineering Services
TRES	Office of Treasurer
TRST	Office of Track and Structures

Exhibit: 5-1

SAFE Responsibility and Task Matrix						
Source: System Safety Program Plan						
Interfaces						
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE 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, RTTO, P	BMNT TIES 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, RTTO, P	BMNT TIES 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 audit 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, RTTO, P	BMNT TIES P		Authority P MTPD P	Chief Safety Officer Assistant Chief Safety Officer Safety Data/TOC Liaison Officer
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, RTTO, P	BMNT P		Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Safety Managers Safety Officers

¹ Deputy Chief, OSH
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	SAFE Responsible Personnel
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 <i>System Safety Program Plan</i> (SSPP)	BTRA, MACS, RTRA, RTTO, P	BMNT TIES P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
3.3	Review of departmental policies and procedures including WMATA <i>Policy/Instructions, Department of Operations Administrative Procedures</i> (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, RTTO, P	BMNT TIES P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
4.0	SSPP Plan Review and Modification	BTRA, MACS, RTRA, RTTO, P	BMNT TIES R	R	Authority R	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
5.3.1.2	SAFE Staff Advise Safety Committee Meetings	BTRA, MACS, RTRA, RTTO, P	BMNT TIES P			Manager, Corporate Safety Programs/NTD Manager Safety Officers
5.4	Safety Design Reviews	ACCS. BTRA, RTRA, RTTO, S	BMNT S TIES P			Assistant Chief Safety Officer Deputy Chief, Rail Safety Safety Officers



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces

SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
5.4.1	Safety related complaint Investigations	BTRA MACS RTRA RTTO P	BMNT P TIES P	P	RISK RCF RADS CSV PRMT ACCS P	Assistant Chief Safety Officer Deputy Chief Safety Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs/NTD Safety Officers
5.4.2	Investigation of safety related repetitive events	BTRA MACS RTRA RTTO P	BMNT TIES P	P	RCF RADS PRMT P	Assistant Chief Safety Officer Deputy Chief Safety Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs/NTD
5.4.5	Maintain SAFE Field Offices	BTRA MACS RTRA RTTO P	BMNT TIES 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/NTD Manager, EMIH Safety Officers
5.4.6	Coordination with Maryland Occupational Safety and Health Service	BTRA RTRA RTTO S	BMNT TIES 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 RTTO S	BMNT TIES S	S	RCF PRMT MTPD S	Deputy Chief, OSH Manager, Corporate Safety Programs/NTD Safety Officers



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces						
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
5.4.8	Coordination with United States Department of Labor Occupational Safety and Health Administration (OSHA) and the District of Columbia Occupational Safety and Health Administration	BTRA RTRA RTTO S	BMNT TIES S	S	RADS PRMT S	Deputy Chief, OSH Manager, Corporate Safety Programs/NTD Safety Officers
5.4.4	Environmental Management Oversight Process	BTRA RTRA RTTO P	BMNT TIES P	P	CFO RCF RADS PRMT P COUN R	Deputy Chief, EMIH Environmental Protection Oversight Administrator
6.0	Hazard Management Process	BTRA RTRA RTTO P	BMNT TIES P		Authority RISK RCF RADS PRMT MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Deputy Chief, Corporate Quality Assurance QA Managers QA Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Manager, Corporate Safety Programs/NTD Safety Officers
6.2	System Safety Analysis	BTRA RTRA RTTO S	BMNT TIES 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 RTTO P	BMNT TIES P		ACCS	Assistant Chief Safety Officer Deputy Chief, Rail Safety Safety Officers



SAFE Responsibility and Task Matrix						
Source: System Safety Program Plan						
Interfaces						
SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
8.0	Safety and Security Certification	BTRA RTRA RTTO S	BMNT S TIES P		MTPD P	Assistant Chief Safety Officer Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Safety Officers
9.0	Safety Data Reporting	BTRA MACS RTRA RTTO P	BMNT TIES P	P	Authority RISK RCF RADS P	Deputy Chief, OSH Manager, Corporate Safety Programs/NTD Safety Officers Safety Data/TOC Liaison Officer
9.2	Safety related reports to external agencies	BTRA MACS RTRA RTTO P	BMNT TIES 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/NTD Safety Data/TOC Liaison Officer
10.0	Investigations	BTRA MACS RTRA RTTO P	BMNT TIES 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/NTD Safety Officers Safety Data/TOC Liaison Officer Deputy Chief, Corporate Quality Assurance QA Managers QA Officers



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces

SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
11.0 13.0	Develop/Update SOPs, Rules and Emergency Plans	BTRA MACS RTRA RTTO P	BMNT TIES 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/NTD Safety Officers Safety Data/TOC Liaison Officers Deputy Chief, Corporate Quality Assurance QA Managers QA Officers
11.0	Emergency Response Liaison	BTRA MACS RTRA RTTO S	BMNT TIES 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 RTTO P	BMNT TIES P		MTPD P	Fire Marshal Deputy Chief Safety Officers Manager, Bus and MetroAccess Safety Manager, Rail Safety Safety Officers



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces

SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
12.0	Internal Safety and Security Audit Process	BTRA RTRA RTTO P	BMNT TIES 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 Safety Data/TOC Liaison Officer Deputy Chief, Corporate Quality Assurance QA Managers QA Officers
13.0	Rules Compliance/Procedures Review	BTRA MACS RTRA RTTO P	BMNT TIES P	P	RCF RADS PRMT MTPD P	Chief Safety Officer is a signatory to MSRP and BSEH. Chief Safety Officer is vice-chair of the Rail Standing Safety Rules and Procedures Sub-committee. The MSRP must be reviewed and approved by the Executive Safety Committee. 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 Safety Data/TOC Liaison Officer Deputy Chief, Corporate Quality Assurance QA Managers QA Officers



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces

SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
14.0	Facilities and Equipment Inspections	BTRA RTRA RTTO P	BMNT TIES 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, Corporate Quality Assurance QA Managers QA Officers
15.0	Review Maintenance and Failure Data. Perform maintenance inspections/audits	BTRA RTRA RTTO P	BMNT TIES P		RCF RADS PRMT P	Deputy Chief, Corporate Quality Assurance QA Managers QA Officers Deputy Chief, Rail Safety Manager, Bus and MetroAccess Safety Safety Officers
16.0	Training, Certification, Review and Audit	BTRA RTRA RTTO P	BMNT TIES P	P	MTPD, RCF, RADS, OPMS, PRMT, P	Deputy Chief, OSH Manager, Corporate Safety Programs/NTD Safety Officers Deputy Chief, EMIH Chemical Training Liaison Officer
17.0	Configuration Management	BTRA RTRA RTTO P	BMNT TIES 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, Corporate Quality Assurance QA Managers QA Officers
18.1	Personal Protective Equipment Review	BTRA RTRA RTTO P	BMNT TIES 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/NTD Safety Officers Chemical Training Liaison Officer



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces

SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
18.3	Conduct Industrial Hygiene Studies	BTRA, RTRA, RTTO, S	BMNT TIES S	S	RISK, RCF, RADS, PRMT, S	Deputy Chief, EMIH Deputy Chief, OSH Safety Officers
18.3	Monitor Construction Safety Program	BTRA RTRA RTTO S	BMNT S TIES P	P	PRMT P	Assistant Chief Safety Officer Deputy Chief, Rail Safety Construction Safety Liaison Officer Construction Safety Officer
18.3	Monitor Occupational Safety and Health Compliance	BTRA RTRA RTTO P	BMNT TIES P	P	RCF RADS PRMT P	Deputy Chief, OSH Manager, Corporate Safety Programs/NTD Safety Officers Deputy Chief, EMIH Manager, Environmental Services, HazMat Chemical Training Liaison Officer Chemical Safety Officer
19.0	Hazardous Materials Management Material Safety Data Sheet Review	BTRA RTRA RTTO P	BMNT TIES P	P	RCF RADS PRMT P	Deputy Chief, EMIH Manager, Environmental Services, HazMat Chemical Safety Liaison Officer Safety Officers
20.0	Drug and Alcohol Abuse Program	BTRA RTRA RTTO P	BMNT TIES 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



SAFE Responsibility and Task Matrix

Source: System Safety Program Plan

Interfaces

SSPP Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
21.0	Procurement Process	BTRA RTRA RTTO P	BMNT TIES P	P	CFO RCF RADS PRMT P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Chemical Safety Officer Fire Marshal Manager, Bus and MetroAccess Safety Manager, Corporate Safety Programs/NTD Manager, Rail Safety Safety Officers Deputy Chief, Corporate Quality Assurance QA Managers QA Officers



SAFE Responsibility and Task Matrix

Source: Safety Rules and Procedures

Interfaces

Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
2.1/0 RE: SSPP 6.0	Hazard Management Procedure (June 2011)	BTRA RTRA RTTO P	BMNT TIES P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Fire Marshal Safety Data/TOC Liaison Officer Safety Officers
2.2/1 RE: SSPP 8.0	Safety and Security Certification Plan	BTRA RTRA RTTO P	BMNT TIES P		MTPD P	Assistant Chief Safety Officer Deputy Chief Rail Safety Safety Officers
2.3/2 RE: SSPP 12.0	Internal Safety and Security Audit Program Procedures	BTRA RTRA RTTO P	BMNT TIES P	P	Authority MTPD P	Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Bus and MetroAccess Safety Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance 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 RTTO P	BMNT TIES P	P	RCF RADS PRMT MTPD P	Deputy Chief, EMIH Deputy Chief, OSH Chemical Training Liaison Officer Chemical Safety Officer Safety Officers
4.4/4 RE: SSPP 18.0	Confined Spaces Program		BMNT TIES P	P		Deputy Chief, EMIH Deputy Chief, OSH Safety Officers
4.3/0 RE: SSPP 18.0	Bloodborne Pathogens Exposure Control Program	BTRA RTRA RTTO P	BMNT TIES P	P	MTPD P	Deputy Chief, EMIH Deputy Chief, OSH Safety Officers



SAFE Responsibility and Task Matrix

Source: Safety Rules and Procedures

Interfaces

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



SAFE Responsibility and Task Matrix

Source: Safety and Environmental Manuals, Procedures, Plans and Policies

Interfaces

Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
RE: SSPP 18.0	Construction Safety and Environmental Manual		TIES P			Deputy Chief, Rail Safety Deputy Chief, EMIH Construction Safety Liaison Officer Construction Safety Officer
RE: SSPP 19.0	Consolidated Plans	BTRA RTRA RTTO P	BMNT TIES P		RCF RADS PRMT P	Deputy Chief, EMIH Manager, Environmental Engineering
RE: SSPP 19.0	Environmental Standard Operating Procedures	BTRA RTRA RTTO P	BMNT TIES P		RCF RADS PRMT P	Deputy Chief, EMIH Manager, Environmental Services, HazMat Environmental Protection Oversight Administrator
RE: SSPP 19.0	Environmental Compliance Officers and Deputy Environmental Compliance Officers	BTRA RTRA RTTO P	BMNT TIES P		RCF RADS PRMT P	Deputy Chief, EMIH Manager, Environmental Services, HazMat Environmental Protection Oversight Administrator
P/I 10.3/1 RE: SSPP 13.0	Electronic Device Policy	BTRA MACS RTRA RTTO P	BMNT TIES P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
P/I 1.15/0 RE: SSPP 13.0	Rule Book Management	BTRA MACS RTRA RTTO P	BMNT TIES P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers Executive Safety Committee
P/I 1.11/1 RE: SSPP 10.0	Procedures for Inter-Departmental Notification of Incidents	BTRA RTRA RTTO P	BMNT TIES P		PREL P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
P/I 4.10/3 RE: SSPP 17.0	Configuration Control Management	BTRA RTRA RTTO P	TIES P	P	Authority P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety Fire Marshal



SAFE Responsibility and Task Matrix

Source: Safety and Environmental Manuals, Procedures, Plans and Policies

Interfaces

Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
P/I 4.14/2 RE: SSPP 17.0	Design Control Board	BTRA, RTRA, RTTO, P	BMNT TIES P			Chief Safety Officer Assistant Chief Safety Officer 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, RTTO, P	BMNT TIES P	P	Authority P RISK P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, EMIH
P/I 6.10/3	WMATA Employee Identification Cards	BTRA, RTRA, RTTO, P	BMNT TIES P	P	Authority MTPD P	Chief Safety Officer Assistant Chief Safety Deputy Chief, OSH
P/I 7.21/4 RE: SSPP 20.0	Drug and Alcohol Policy and Testing Program	BTRA MACS RTRA RTTO P	BMNT TIES P	P	PRMT P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
P/I 10.4/0 RE: SSPP 10.0	Accident/Incident Investigation Policy	BTRA MACS RTRA RTTO P	BMNT TIES P	P	CFO CSCM PREL MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief Safety Officers
P/I 12.1/2 RE: SSPP 10.0	News Media Policy	BTRA, RTRA, RTTO, S	BMNT TIES S		PREL P	Chief Safety Officer Assistant Chief Safety Officer
P/I 13.4/0 RE: SSPP 12.0	Office of Inspector General	BTRA, RTRA, RTTO, S	BMNT TIES S	S	OIG P Authority S	Chief Safety Officer Assistant Chief Safety Officer
P/I 16.1/0 RE: SSPP	ADA Compliance and Jurisdiction of the Department of Access Services	BTRA, RTRA, RTTO, P	BMNT TIES P	P	ACCS P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, OSH Deputy Chief, Rail Safety Deputy Chief, Bus and MetroAccess Safety



SAFE Responsibility and Task Matrix						
Source: Safety and Environmental Manuals, Procedures, Plans and Policies						
Interfaces						
Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
OAP 100-8 RE: SSPP 21.0	Warranty Administration for Rail Operations Delivery	RTRA RTTO P	TIES P		PRMT P	Deputy Chief, Rail Safety ; Deputy Chief, Bus and MetroAccess Safety Deputy Chief, Corporate Quality Assurance QA Managers
OAP 100-12 RE: SSPP	Procedures for Requesting Track/Facility Escorts and Equipment	RTRA RTTO P	TIES P			Deputy Chief, Rail Safety Manager, Rail Safety Safety Officers
OAP 113-01 RE: SSPP 21.0	Non-conforming Quality Hold and Containment		TIES P		PRMT P	Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance QA Managers
OAP 113-02 RE: SSPP 21.0	Rail Car Commissioning	RTRA RTTO P	TIES P		PRMT P	Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 113-03 RE: SSPP 21.0	Quality Assurance Audit Procedure	RTRA RTTO P	TIES P		PRMT P	Deputy Chief, Corporate Quality Assurance QA Managers
OAP 113-04 RE: SSPP 21.0	Quality Assurance Corrective Action	RTRA RTTO P	TIES P		PRMT P	Deputy Chief, Corporate Quality Assurance QA Managers
OAP 113-05 RE: SSPP 21.0	QAAW Receiving Inspection Policy and Procedure	RTRA RTTO P	TIES P		PRMT P	Deputy Chief, Corporate Quality Assurance QA Managers
OAP 113-06 RE: SSPP 21.0	First Article Inspection Procedure	RTRA RTTO P	TIES P		PRMT P	Deputy Chief, Corporate Quality Assurance QA Managers
OAP 202-01 RE: SSPP 15.0	Transit Car Re-railing Action Plan	RTRA RTTO P	CMNT P			Deputy Chief, Rail Safety
OAP 202-0 RE: SSPP 15.0	Corrective Maintenance (Rail Vehicle)		CMNT CENV P		PRMT P	Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 202-03 RE: SSPP 15.0	Preventive Maintenance (Rail Car)		CMNT CENV P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance



SAFE Responsibility and Task Matrix

Source: Safety and Environmental Manuals, Procedures, Plans and Policies

Interfaces

Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
OAP 202-06 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 RTTO OPMS P	TIES P	P		Deputy Chief, OSH
OAP 203-03 RE: SSPP 16.0	Development and Revision of Curriculum Materials	RTRA RTTO OPMS P	TIES 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 SMNT 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	Equipment Testing and Performance Evaluation	RTRA RTTO P	TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 206-02 RE: SSPP 14.0	Engineering Tests	RTRA P	TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 200-02 RE: SSPP 14.0 & 15.0	Maintenance Operations Center	RTRA P	SMNT P			Deputy Chief, Rail Safety Manager, Rail Safety
OAP 200-03 RE: SSPP 15.0	Preventative Maintenance on Revenue Vehicles and Wayside Equipment		TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 200-05 RE: SSPP 15.0	Corrective Maintenance		TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance



SAFE Responsibility and Task Matrix						
Source: Safety and Environmental Manuals, Procedures, Plans and Policies						
Interfaces						
Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
OAP 200-06 RE: SSPP 7.0	Engineering Modification Instruction	RTRA RTTO S	TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 200-007 RE: SSPP 10.0	Computer Data Analysis (System Log)	RTRA P	TIES P			Deputy Chief, Rail Safety Manager, Rail Safety
OAP 200-11 RE: SSPP 14.0	Maintenance Service Instructions (MSIS)		TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 200-24 RE: SSPP 16.0	Train Operator Certificate of Qualification	RTRA RTTO ROQT P				Manager, Rail Safety QA Managers
OAP 200-25 RE: SSPP 8.0	Engineering Service Bulletin		TIES P			Deputy Chief, Rail Safety Deputy Chief, Corporate Quality Assurance
OAP 200-26 RE: SSPP 10.0	Elevator Entrapments	RTRA RTTO P	ELES P			Deputy Chief, Rail Safety
OAP 200-33 RE: SSPP 18.0	Site Specific Work Plan	RTRA RTTO P	TIES 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
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



SAFE Responsibility and Task Matrix

Source: Safety and Environmental Manuals, Procedures, Plans and Policies

Interfaces

Procedure Sec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
OAP 207-21 RE: SSPP 14.0	Bus Pre-trip Inspection Procedures	BTRA P	BMNT P			Deputy Chief, Bus and MetroAccess Safety Deputy Chief, Corporate Quality Assurance 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 RTTO P	TIES P			Manager, Rail Safety
RE: SSPP 13	Terminal Operations Procedures	RTRA RTTO P	TIES 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	SAFE Responsible Personnel
RE: SSPP 13	MSRPH Rule Book, Procedures And Orders	RTRA RTTO P	TIES 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, EMIH Deputy Chief, Rail Safety Manager, Rail Safety Manager, Corporate Safety Programs/NTD Safety Officers Deputy Chief, Corporate Quality Assurance QA Managers QA Officers
S.O. 03-03	Continuity of Operations Plan (COOP) for Rail	RTRA RTTO P	TIES P	P	Authority MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, Rail Safety Fire Marshal Manager, Rail Safety Deputy Chief, Corporate Quality Assurance
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 Officer Deputy Chief, Bus and MetroAccess Safety Fire Marshal Manager, Bus and MetroAccess Safety Deputy Chief, Corporate Quality Assurance
RE: SSPP 11.7	Continuity of Operations Plan (COOP) for MetroAccess	MACS P		P	Authority MTPD P	Chief Safety Officer Assistant Chief Safety Officer Deputy Chief, Bus and MetroAccess Safety Fire Marshal Manager, Bus and MetroAccess Safety Deputy Chief, Corporate Quality Assurance



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

Rec. #	Responsibilities and Tasks	OPS	MNT	HR	OTHER	SAFE Responsible Personnel
14	Regularly review recorded operational data from the rail car onboard recorders	RTRA RTTO	TIES 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 RTTO P	TIES 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.		TIES 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 damage to or loss of equipment or property. An unacceptable hazard is a condition that may endanger human life or property or result in major system loss. This condition must be mitigated.

SAFE is directly responsible for the implementation of the WMATA Hazard Management Program (see exhibit 6-1) through *WMATA Safety Rules and Procedures No. 2.5/0, WMATA Hazard Management Program*. 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, RTTO, RTRA, TIES, and RISK. As the Rail HMP Coordinator, the Deputy Chief, Rail Safety is the primary point of contact with the TOC 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, TIES (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 TOC. The Deputy Chief, OSH 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 will work with the responsible organization to identify, analyze, and categorize environmental related hazards and to develop and implement mitigating measures.

MetroAccess contractors are responsible for developing and implementing a HMP for its 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

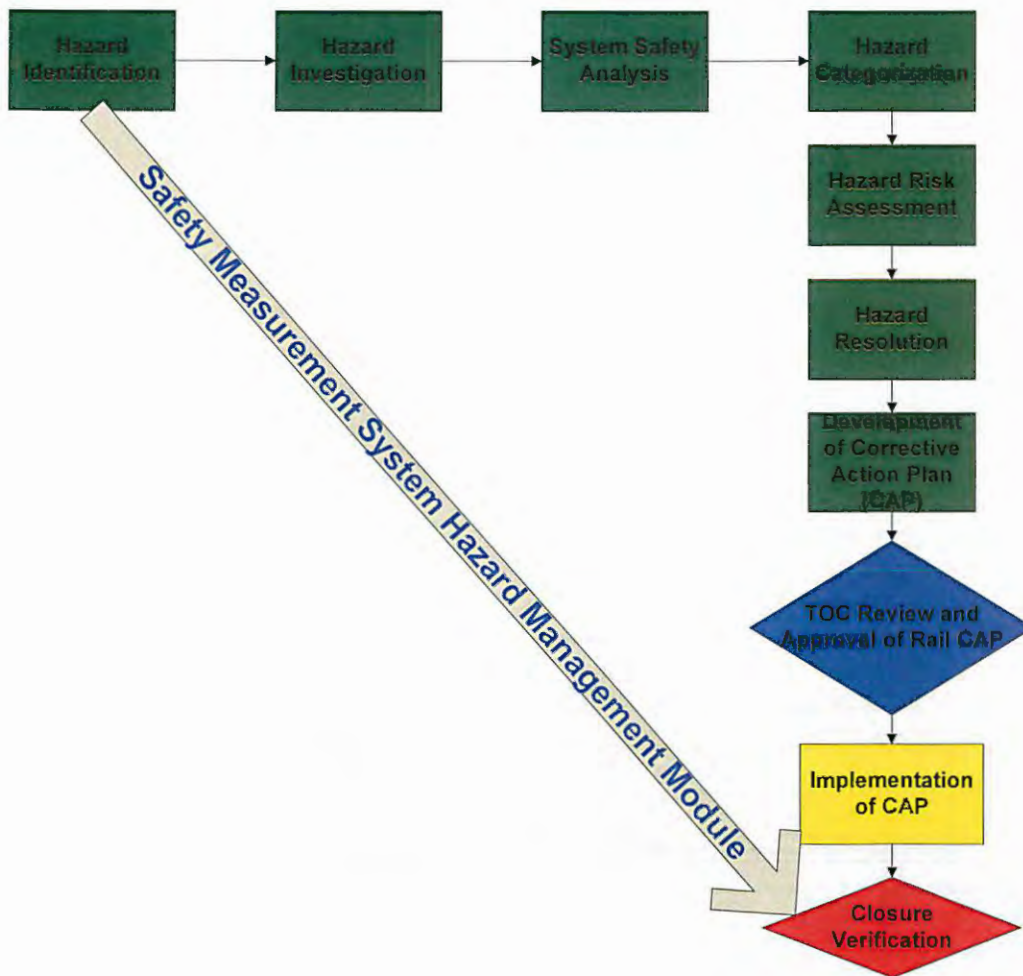


Exhibit: 6-1

Hazard Management Process Matrix Function Organization

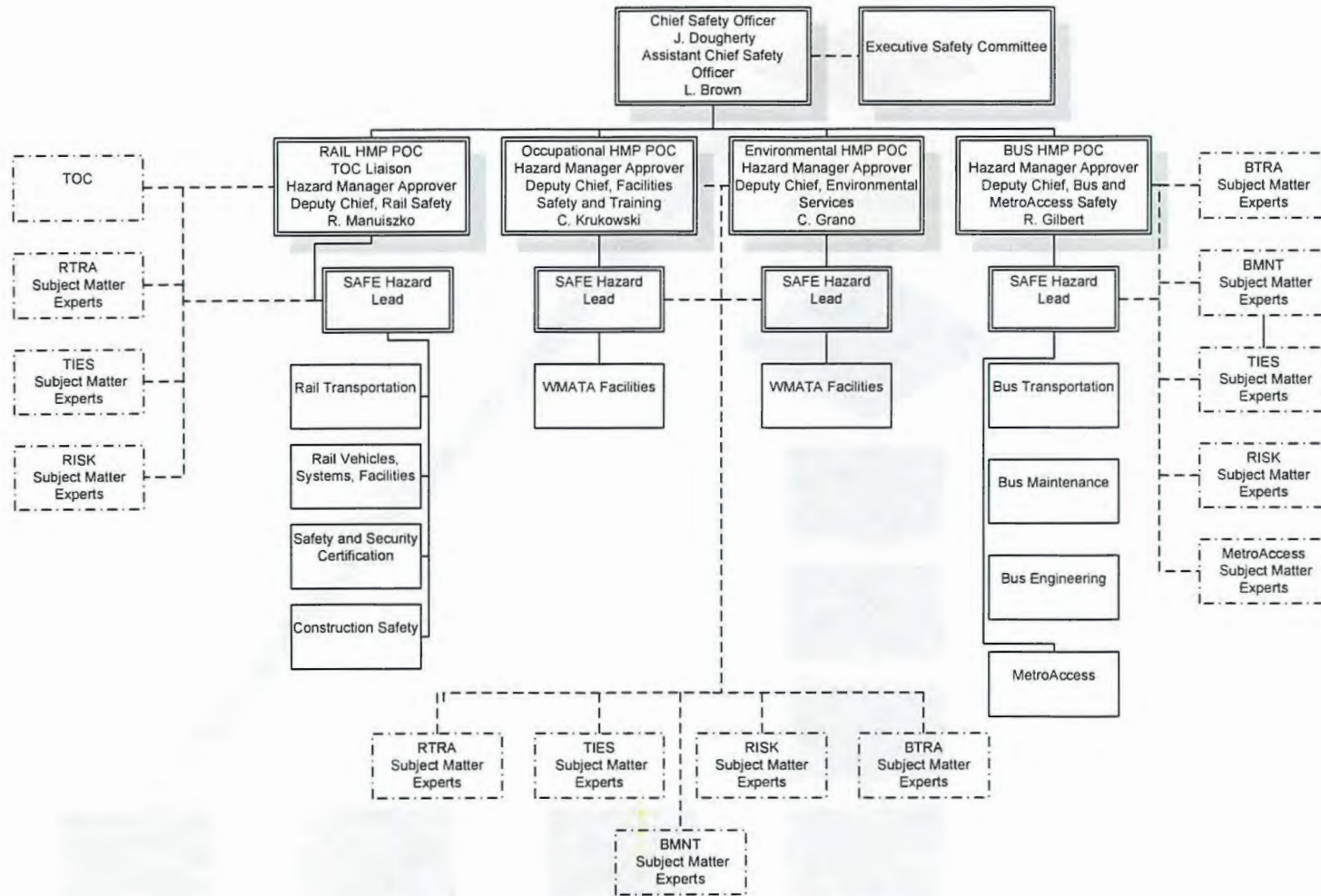


Exhibit: 6-2

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 TOC. 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 RTRA, RTTO, TIES, BUS and BMNT 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
- Data mining of incident and maintenance databases

Sources of Hazard Identification

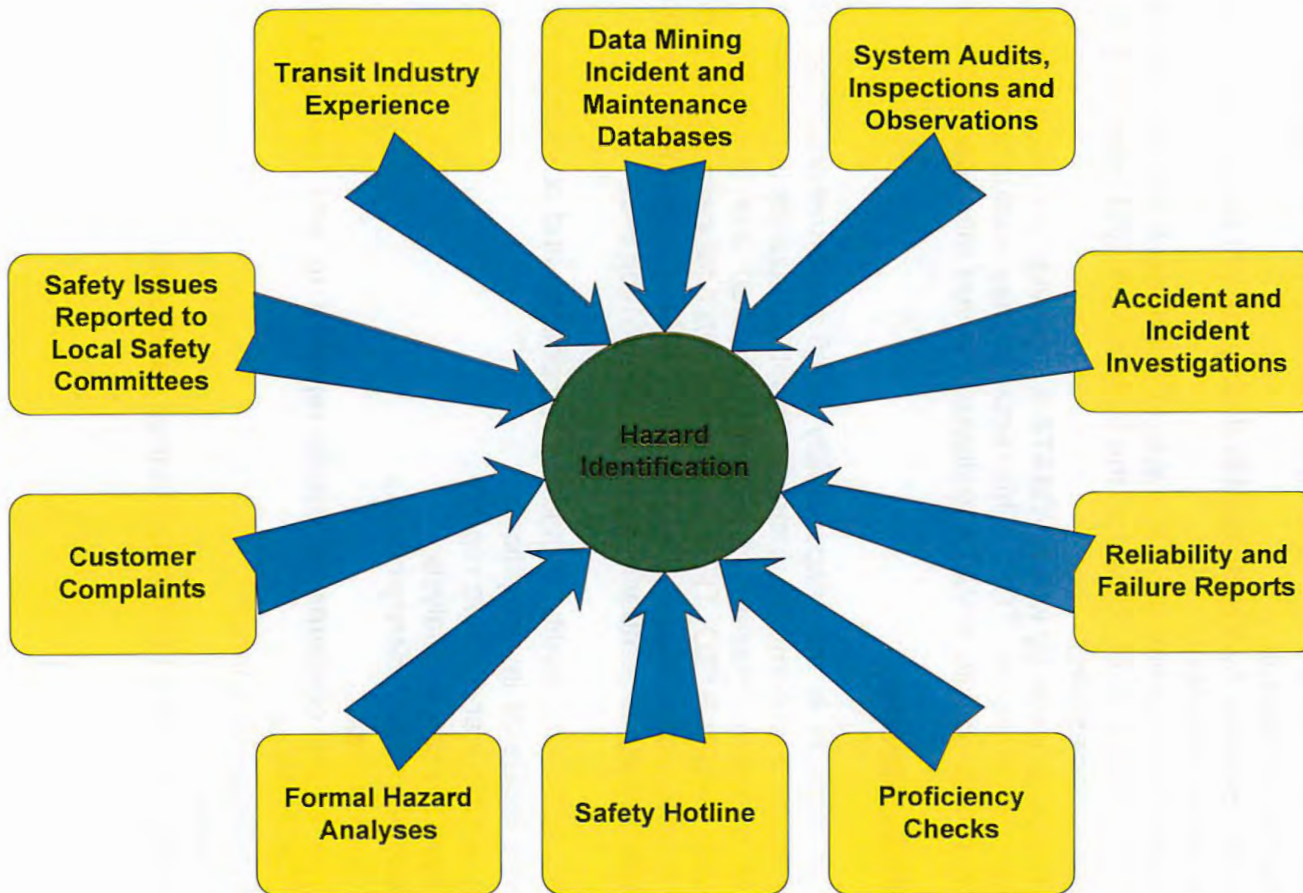


Exhibit: 6-3

6.2.2 Hazard Investigation

WMATA investigates identified hazards in accordance with sections 8.4, 10.3 and 11.2.c of the TOC PS/P. 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 TOC of Hazardous Conditions

During the hazard investigation process, if it is determined that a hazardous condition exists, that meets the following criteria as stated in section 10.6, "Requirements for Notification of TOC," of the TOC PS/P:

- I-A (Catastrophic/Frequent)
- II-A (Critical/Frequent)
- III-A (Marginal/Frequent)
- I-B (Catastrophic/Probable)
- II-B (Critical/Probable)
- I-C (Catastrophic/Occasional)

The CSO will immediately notify the responsible department head, the ESC, GM/CEO and the TOC Chair or designated TOC representative (for rail hazards only, by phone and e-Mail) within two (2) hours of the determination that the hazard meets the above criteria. Note: Exhibit 6-5: Risk Assessment Matrices categorizes hazards that meet the above referenced criteria as "Unacceptable". SAFE will provide regular e-Mail status updates to TOC regarding the resolution of the unacceptable hazardous condition.

To ensure that WMATA appropriately notifies TOC of all hazardous conditions affecting rail safety or security that are not necessarily assigned the Hazard Risk Index meeting the above criteria, SAFE shall also notify TOC of all hazardous conditions and incidents that meet the criteria listed in Exhibit 6-4 that is required by section 10.6 of the TOC PS/P and WMATA/TOC MOU.