Safety and Operations Committee

Board Action Item III-A

September 8, 2022

Approval of Agency Safety Plan

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

◉ Action ○ Information	MEAD Number: 203383	Resolution: ◉ Yes ○ No

TITLE:

Public Transportation Agency Safety Plan Approval

PRESENTATION SUMMARY:

Metro's Board is required to review and approve the Public Transportation Agency Safety Plan (ASP) annually. This presentation explains the key changes made to the plan as part of this year's annual revision.

PURPOSE:

To obtain Board approval of the annual revision of Metro's ASP.

DESCRIPTION:

MITRE is a federally funded non-profit that that specializes in applying data sciences to advance safety in the transportation industry. MITRE has been retained to assist Metro with development and implementation of its Voluntary Safety Reporting Program.

Key Highlights:

The following key changes were made as part of this year's annual revision to the ASP:

- Incorporates additional safety requirements applied to the transit industry as part of the Infrastructure Investment and Jobs Act, specifically: establishing a Joint Labor and Management Safety Committee, infectious disease mitigation, and employee assault reduction targets, and expanding de-escalation training

- Describes the MITRE partnership (formed in March of 2022), which includes performing a safety culture assessment, improving voluntary safety reporting capabilities, and enhancing safety data analytics

- Incorporates feedback solicited from Metro employees, the Joint Labor and Management Safety Committee, Federal Transit Administration, Washington Metrorail Safety Commission, and Senior Executive Team

Background and History:

In 2016, the Federal Transit Administration (FTA) published 49 CFR Part 670 Public Transportation Safety Program, which states *"The FTA has adopted the principles and methods of Safety Management Systems (SMS) as the basis for enhancing the safety of public transportation in the United States"* (49 C.F.R. § 670.3). SMS is a comprehensive, collaborative approach that brings management and labor together to build on the transit industry's existing safety foundation to continuously improve how safety risks are identified and assessed with mitigating actions taken before an accident or incident occurs.

In July 2018, the FTA published 49 CFR Part 673 Public Transportation Agency Safety Plan. Transit operators that receive federal funds (under the FTA's Urbanized Area Formula Grants) are required to develop ASPs that specify how SMS will be implemented over the course of a multi-year period. Metro's ASP has been approved by the Senior Executive Team (SET), Board of Directors, Washington Metrorail Safety Commission (WMSC), and self-certified with the FTA.

Discussion:

The Safety Department's (SAFE) vision is for Metro to become the transit industry leader in safety. SAFE's mission is to realize this vision by developing and implementing a world-class Safety Management System (SMS). SAFE's strategic roadmap establishes the priorities for accomplishing the mission. Metro's ASP describes how the mission will be implemented. There are four components to SMS: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. The ASP is refreshed annually to reflect the progress made, incorporate lessons learned, and outline the path forward. Key changes to the ASP include: incorporating requirements of the Infrastructure Investment and Jobs Act (IIJA); defining the Metro/MITRE partnership going forward; and incorporating feedback from a variety of sources including Metro employees, senior executive team, Joint Labor and Management Safety Committee (JLMSC), Washington Metrorail Safety Committee (WMSC), and Federal Transit Administration (FTA).

IIJA Requirements

Passage of IIJA resulted in new safety requirements for the transit industry to include in ASPs. Specifically, this new law required transit agencies to establish JLMSCs. Metro is proud to be among the first agencies to form its JLMSC with the first meeting occurring in June, over a month ahead of the required deadline of July 31, 2022. The JLMSC is required to review and approve Metro's ASP and oversee its implementation to establish an SMS that proactively manages safety risk. The JLMSC reviewed and provided feedback to the ASP over the month of July. JLMSC feedback was incorporated into the ASP. The JLMSC voted unanimously to approve the ASP on August 4, 2022. The IIJA also requires ASPs to include strategies for infectious disease mitigation. SAFE's Office of Emergency Preparedness (OEP) maintains a dedicated Pandemic Flu Plan that outlines Metro's strategy for mitigating infectious diseases. The ASP has been updated to align and refer to that plan,

which is being refreshed to account for the lessons learned from the COVID-19 pandemic. The IIJA also requires ASP to include risk reduction programs for transit worker assaults. SAFE has partnered with the Metro Transit Police Department (MTPD) to incorporate this requirement. Employee assault rates and mitigation progress are tracked and reported monthly. Additionally, IIJA expanded the population required to complete de-escalation training to include safety, operations, and maintenance personnel. MTPD has been providing de-escalation training and will partner with SAFE and COO to expand its implementation.

Metro/MITRE Partnership

In March 2022, Metro became the first transit agency to partner with MITRE, a federally-funded non-profit that has worked to improve safety in aviation and other industries for over 50 years. The ASP has been updated to reflect how this partnership will focus on performing a safety culture assessment, improving voluntary safety reporting, and enhancing safety data analytics. The assessment will formalize Metro's understanding on the current state of its safety culture and inform the path toward realizing a positive safety culture where employees feel empowered and encouraged to speak up and act in response to safety concerns. The assessment will be conducted approximately every two years to measure progress.

While Metro has a proud history of leading the transit industry in voluntary reporting, the variety of internal and external reporting mechanisms have been historically siloed. Metro and MITRE will work together to develop a tool to integrate and pool voluntary reporting from the various sources that exist as well as provide additional capabilities and functionality. Additionally, Metro and MITRE will collaborate to apply MITRE's industry leading analytical techniques to Metro's safety data resulting in a new level of visibility and insights that will continuously improve how safety risk is proactively managed.

ASP Feedback

To instill an Authority-wide sense of ownership of the ASP, a dedicated website was created for employees to access ASP information and actually make changes directly to an editable version of the document (with track changes on) or submit feedback forms if preferred. SAFE partners with Customer Service, Communications, and Marketing (CSCM) to actively promote the website and ASP through promotional campaigns, podcasts, email, and other forms of communication. Additionally, the JLMSC is required to review and approve the ASP. The committee was provided a month to review and provide feedback. A deep dive review into the ASP was held with the JLMSC at the end of July, and on August 4, 2022, they voted unanimously to approve the latest version of the ASP. Each year, Metro has also taken advantage of the courtesy reviews of the ASP offered by FTA's Technical Assistance Center (TAC) and incorporated feedback. Feedback from Metro's senior executive team was also incorporated.

The Washington Metrorail Safety Commission (WMSC) is required to approve the ASP. The Chief Executive Officer of WMSC provides Metro's General

Manager/Chief Executive Officer with conditional approval through email, which means Metro's direct oversight concurs with the ASP but final approval does not come until the WMSC's commissioners have voted, which is scheduled to occur in October following approval by Metro's senior executive team and Board of Directors.

Next Steps

Provided the Board approves, the ASP will be submitted for approval to the WMSC's commissioners, who are tentatively scheduled to vote in October. The WMSC provides approval with an effective date of December 31 since the revision cycle is on a calendar year basis. After the WMSC approves, Metro is required to self-certify that it complies with federal safety requirements in the FTA's transit award management system. Concurrently, Metro will continue to develop and implement SMS and report progress to the Executive Safety Committee (ESC) and Board's Safety and Operations Committee on a regular basis.

FUNDING IMPACT:

Development and implementation of SMS is accounted for in the budget. This presentation is a report on the progress being made in accordance with the ASP.	
Project Manager:	Theresa Impastato
Project Department/Office:	Department of Safety (SAFE)

TIMELINE:

Previous Actions	As documented in the ASP.
Anticipated actions after presentation	Implementation of the SMS throughout Metro is planned as a multi-year process. No change to the timeline is proposed. The Operations Department has been prioritized for baseline implementation.

RECOMMENDATION:

Recommend the Board approve the annual update to the ASP.

Agency Safety Plan – Annual Review and Approval

Safety & Operations Committee
September 8, 2022

Purpose: To obtain Board approval of Metro's Public Transportation Agency Safety Plan (ASP)

- Defines how Metro is developing a Safety Management System
- Annual revision 3.0

Four Components

Formalizes SMS adoption by Metro.

Data, processes, and tools drive proactive action before incidents occur

Shape the culture required to sustain long-term effectiveness

Oversight to verify proactive actions are being taken and working as intended

Plan Enhancements:

- **Infrastructure Investment and Jobs Act**
  - ✓ Establishment of Joint Labor and Management Safety Committee
  - ✓ Infectious disease mitigation
  - ✓ Employee assault targets
  - ✓ Expanding De-escalation training

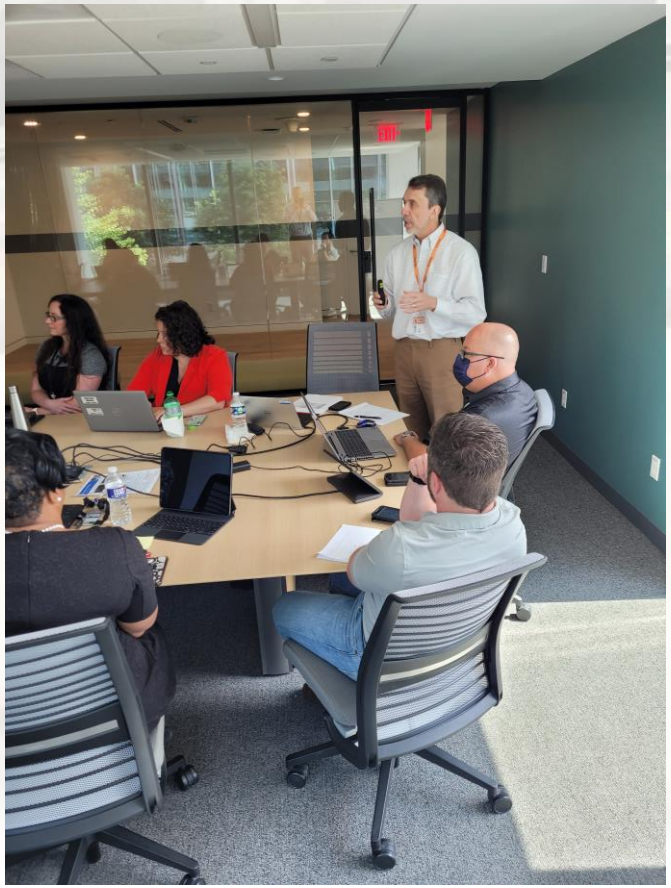
Plan Enhancements:

- **Partnership with MITRE**
  - ✓ Safety culture assessment
  - ✓ Voluntary safety reporting
  - ✓ Enhancing Safety data analytics

Bedford, Mass., and McLean, Va., April 13, 2022 – MITRE and the Washington Metropolitan Area Transit Authority (Metro) are pleased to announce a collaboration that is designed to strengthen Metro's Safety Management System (SMS).

Plan Enhancements:

- **Feedback Solicitation**
  - ✓ Metro employees
  - ✓ Joint Labor and Management Safety Committee
  - ✓ Federal Transit Administration
  - ✓ Washington Metrorail Safety Commission
  - ✓ Senior Executive team



MITRE presents to JLMSC

ASP Timeline:

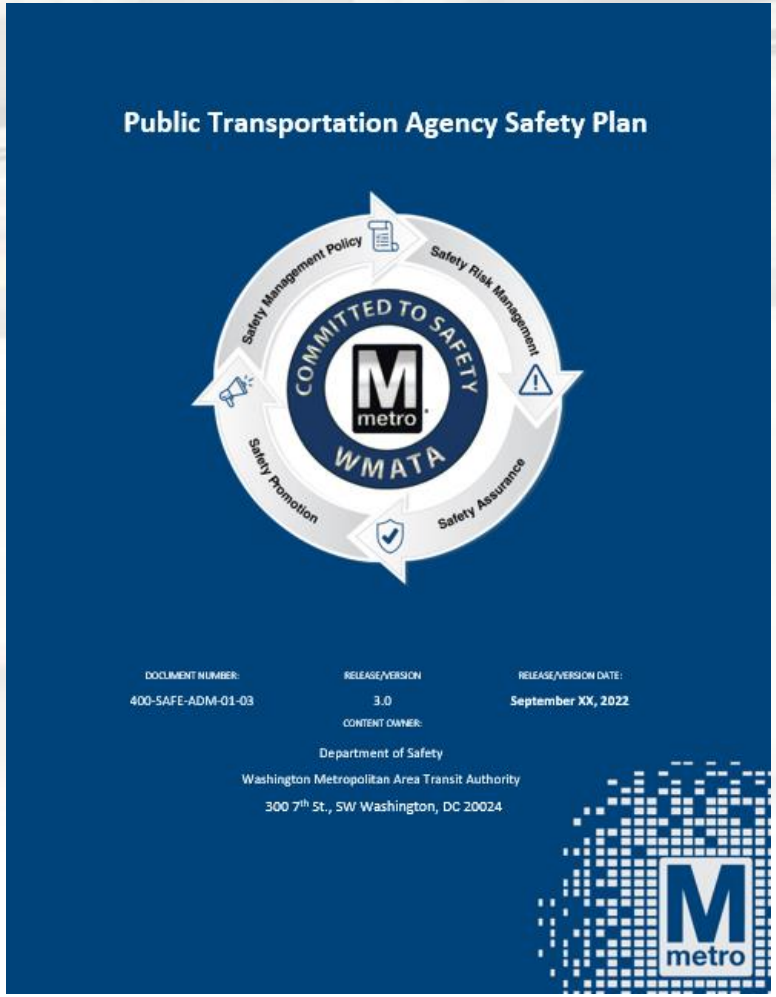
- **MAY**
  - QICO Review
  - ASP Revisions
- **JUN**
  - CSO Approves ASP Draft
- **JUL**
  - SET, WMSC, FTA, JLMSC Review
- **AUG**
  - Finalize Revisions
  - Conditional WMSC Approval /SET Signoff
- **SEP**
  - WMATA Board Review and Approval
- **OCT**
  - WMSC Board Review and Approval
- **DEC**
  - FTA Certifi-cation
  - Publish ASP

Completed Activity

Current Activity

Next Steps:

- Submit Board-approved ASP to WMSC
- Self-certify compliance in the FTA's transit award management system
- Continue to develop and implement Metro's SMS in accordance with the plan



SUBJECT: APPROVAL OF THE 2022 PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WHEREAS, Federal Transit Administration (FTA) regulation 49 C.F.R. § 673.11(a)(1) requires the Board of Directors to approve WMATA's Public Transportation Agency Safety Plan (PTASP); and

WHEREAS, In accordance with FTA regulation 49 C.F.R. § 673.11(a)(5), staff has conducted an annual review of and updated the PTASP (Attachment A); and

WHEREAS, In accordance with the laws of the U.S. Department of Transportation codified at 49 U.S.C. § 5329(d), the Joint Labor and Management Safety Committee (JLMSC) has reviewed and approved the updated PTASP; and

WHEREAS, The General Manager and Chief Executive Officer has signed the PTASP and certified to the Board of Directors that the PTASP is satisfactory and complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the PTASP will effectively guide WMATA with the management of safety risks;

NOW, THEREFORE, be it

RESOLVED, That the Board of Directors approves the 2022 Public Transportation Agency Safety Plan, set forth in Attachment A; and be it finally

RESOLVED, That this Resolution shall be effective 30 days after adoption in accordance with Compact Section 8(b).

Reviewed as to form and legal sufficiency,

/s/_____
Patricia Y. Lee
Executive Vice President and General Counsel

WMATA File Structure No.:
22.6.1 Federal Transit Administration (FTA) Safety Oversight

Public Transportation Agency Safety Plan

DOCUMENT NUMBER:	RELEASE/VERSION	RELEASE/VERSION DATE:
400-SAFE-ADM-01-03	3.0	**December XX, 2022**

CONTENT OWNER:

Department of Safety

Washington Metropolitan Area Transit Authority

300 7th St., SW Washington, DC 20024

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Concurrences and Approvals

WMATA Public Transportation Agency Safety Plan

400-SAFE-ADM-01-03

Theresa Impastato
Executive Vice President &
Chief Safety Officer

Brian Dwyer
Executive Vice President &
Chief Operating Officer

Barbara Richardson
Executive Vice President &
Chief External Affairs

Dennis Anosike
Executive Vice President &
Chief Financial Officer

Thomas Webster
Executive Vice President -
Strategy Planning and Program
Management

Dianna Rosborough
Executive Vice President &
Chief Internal Business
Operations

Eric Christensen
Executive Vice President &
Chief Internal Compliance

Andy Off
Executive Vice President
Capital Delivery

Provided in Appendix G
Randy Clarke
General Manager and
Chief Executive Officer

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Safety Management Policy Letter

Dear Colleagues,

Metro's mission is to move the region through safe, equitable, reliable, and cost-effective public transportation. At Metro, safety is a core value and to accomplish our mission we are committed to implementing an industry-leading Safety Management System (SMS) to proactively manage and mitigate safety risks.

During uncertain times, people rely even more on Metro as part of the community. We have been there for customers throughout the pandemic, civil unrest, and economic volatility, among other recent challenges. As we emerge from the pandemic, start a new fiscal year, and transition to a new General Manager, it's an exciting time to be a part of Metro.

To continue advancing safety throughout Metro, we are publishing a new Safety Management Policy that clearly states what being safe at Metro really means to us. The four key principles are:

1) We **understand our top safety risks**, what is being done about them, and how well it's working.
2) We take **proactive** action to reduce safety risks and **prevent** incidents from occurring.
3) We **apply lessons learned** from our performance and make continuous safety improvements.
4) We are **encouraged and empowered to voice safety concerns** across all levels of the organization using Metro's safety reporting programs, without fear of reprisal.

By living these principles, we help keep our customers, each other, and our assets free from harm and deliver on our promise to provide the region with safe, equitable, reliable, and cost-effective public transportation. Take a moment to reflect and renew your commitment to living our values, starting with safety – that's doing our part.

Theresa Impastato Executive Vice President & Chief Safety Officer	Brian Dwyer Executive Vice President & Chief Operating Officer	Barbara Richardson Executive Vice President & Chief External Affairs
Dennis Anosike Executive Vice President & Chief Financial Officer	Thomas Webster Executive Vice President Strategy Planning and Program Management	Dianna Rosborough Executive Vice President & Chief Internal Business Operations
Eric Christensen Executive Vice President & Chief Internal Compliance	Andy Off Executive Vice President Capital Delivery	Randy Clarke General Manager and Chief Executive Officer

1.0 General Requirements

The FTA's 49 CFR Part 673 *Public Transportation Agency Safety Plan*, Subpart C *Safety Management Systems* provides the minimum requirements for development of an SMS. In addition, 49 CFR Part 674 *State Safety Oversight* and the WMSC's Program Standard provides specific requirements to which WMATA Metrorail is required to conform. The general requirements reflected in this section include providing specific Transit Agency Information; the timeline associated with ASP development, updates, and approvals; reference to the planning associated with emergency preparedness and response; and specific safety performance targets. This section also includes the plan for re-organizing the Safety Department (SAFE) and provides an overview of the SMS strategic roadmap, which is addressed in more detail as part of the sections for each SMS component.

1.1 Transit Agency Information

Transit Agency Name	Washington Metropolitan Area Transit Authority		
Transit Agency Address	300 7th St., SW Washington, DC 20024		
Name and Title of Accountable Executive	Randy Clarke		
Name and Title of Chief Safety Officer	Theresa M. Impastato		
Authority for State Safety Oversight Program	Washington Metrorail Safety Commission		
Mode(s) of Service Covered by This Plan	Rail, Bus, and Paratransit	**List All FTA Funding Types (e.g., 5307, 5337, 5339)**	5307, 5340, 5337, 5339, 5310, 117-58
Mode(s) of Service Provided by the Transit Agency (Directly operated or contracted service)	Directly operated: Rail and Bus Contracted service: Paratransit (automobile)		

The General Manager and Chief Executive Officer (GM/CEO) is ultimately accountable for ensuring that SMS is implemented throughout the Metro system in accordance with this ASP. Additionally, the GM/CEO is accountable for ensuring action is taken to address substandard performance in Metro's SMS when required. The Executive Vice President (EVP) and Chief Safety Officer (EVP/CSO) has been designated by and reports to the GM/CEO. The EVP/CSO is a safety professional that has been adequately trained, holding both the U.S. Department of Transportation (DOT) Transit Safety and Security Program (TSSP) and Public Transportation Safety Certification Training Program (PTSCTP) certificates (among other credentials). The EVP/CSO has been empowered with the responsibility for day-to-day implementation and operation of Metro's SMS. The EVP/CSO does not serve in any other operational or maintenance capacities.

1.2 Plan Development, Approval, and Updates

Name of Entity That Drafted This Plan	Theresa M. Impastato, Executive Vice President and Chief Safety Officer	
Approval by Joint Labor and Management Safety Committee	**Meeting Minutes**	**Date of Approval**
	Refer to Appendix JLMSC ASP Approval Record	August 31, 2022
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
	Refer to Appendix G PTASP General Manager Certification Record	TBD
Approval by the Board of Directors or an Equivalent Authority	**Name of Individual/Entity That Approved This Plan**	**Date of Approval**
	Board of Director's Resolution – TBD	TBD
	Relevant Documentation (Title and Location)	
	Refer to Appendix H Board of Director's Resolution Record	
Certification of Compliance	**Name of Individual/Entity That Certified This Plan**	**Date of Certification**
	Washington Metrorail Safety Commission	TBD
	Relevant Documentation (Title and Location)	
	Refer to Appendix I PTASP SSOA Certification	

Version Number and Updates

The complete history of successive versions of this plan.

Version Number	Section/Pages Affected	Reason for Change	Date Issued
New	New Document	This was the first iteration of Metro's ASP.	10/08/2021
2.0	Executive Summary	New section, provides an overview by the CSO	12/31/2021
	Entire Document	Added 1.0 General Requirements section to improve organization, the rest of the ASP has re-numbered accordingly	
	Entire Document	Incorporated the SMS Strategic Roadmap	
3.0	Safety Management Policy Letter	Replaced executive summary	12/31/2022

	1.1 Transit Agency Information	Updated to reflect new headquarters address and new GM	12/31/2022
	1.3.1 Infectious Disease Mitigation	New sub-section, added to meet the new requirements introduced by the Infrastructure Investment and Jobs Act	
	1.4 Safety Performance Targets	Updated to reflect refreshed targets and meet the new requirements introduced by the Infrastructure Investment and Jobs Act	
	1.5 Development and Implementation of a Safety Management System	Refreshed to introduce the latest SMS Strategic Roadmap	
	2.0 Safety Management Policy	Updated to reflect the priorities outlined in the SMS Strategic Roadmap.	12/31/2022
	2.1 Safety Management Policy Overview	Added language to explain the establishment o the Metro's safety policy as a standalone document.	
	2.1.1 Safety Management Policy Statement	Updated to reflect new GM/CEO.	
	2.2 Employee Safety Reporting Program	Updated to reflect Metro's partnership with MITRE to advance Employee Safety Reporting.	
	2.3 Communication of the Safety Management Policy	Update to reflect the strategy for communicating the safety management policy statement.	
	2.4.2 SMS Executive	Updated to reflect the latest version of SAFE's planned organizational future state	
	2.4.3.1.1 Rail Services	Updated to include the recently established Power Operations Center	
	2.4.2.1.2 Bus Services	Updated to refresh content on bus services.	
	3.0 Safety Risk Management	Updated to reflect the priorities outlined in the SMS Strategic Roadmap.	12/31/2022
	3.1 Safety Risk Management Process	Updated to reflect the latest priorities for Safety Risk Management rollout and the role of the Joint Labor and Management Safety Committee, which has been established to meet the requirements introduced by the Infrastructure Investment and Jobs Act.	

	3.2.1 Occupational Safety and Health Risk Management	New sub-section added.	12/31/2022
	3.2.2 Operational Safety Risk Management	New sub-section added.	
	3.2.3 Rodway Worker Protection	New sub-section added.	
	3.2.4 Safety Certification	New sub-section added.	
	3.2.5 Security Risk / Threat Analysis	New sub-section added.	
	4.0 Safety Assurance	Updated to reflect the priorities outlined in the SMS Strategic Roadmap.	12/31/2022
	4.1 Safety Performance Monitoring and Measurement	Update to reflect the progress made to develop the Operations Safety Oversight team.	
	4.1.3 Safety Investigations	Updated to reflect the progress made to establish an incident management framework, mature mission assurance coordinator and primary responder functions, and expand the investigations team capacity.	
	4.4.1 Employee Safety Reporting Corrective Action Plan	New sub-section added.	
	5.0 Safety Promotion	Updated to reflect the priorities outlined in the SMS Strategic Roadmap.	12/31/2022
	5.1.1 Employee Safety Training	Updated to reflect progress toward developing an SMS Communications, Training, and Engagement strategy.	
	5.2 Safety Communication	Updated to reflect strategy with MITRE.	
	Appendices A and C	New appendices.	

Annual Review and Update of the Public Transportation Agency Safety Plan		
Timeline	**Activity or Milestone**	**Responsibility**
January 1 to December 31	ASP is made available year-round on Metro's intranet for review and comment. Metro will also take comments directly through email and other means.	The Director of Safety Policy and Promotion ensures the document is posted, the comment form is available, and ensures the opportunity to review and provide feedback is promoted. All comments (regardless of how they were received) will be logged and maintained on SAFE's SharePoint.
May 1-30	Conduct ASP General Review	The Director of Safety Policy and Promotion will work with SAFE leadership to perform an inventory of inputs resulting from comments made, investigations, policy changes, Corrective Action Plans (CAPs), risk mitigations, Safety Committees, Safety Risk Coordinators (SRCs), and other sources. This review will include partnering with Quality Assurance, Internal Compliance and Oversight (QICO) to ensure interconnected policies, procedures, work instructions, job responsibilities (etc.) that may be affected are accounted for and addressed.
June 1-30	Prepare ASP Draft	The Director of Safety Policy and Promotion works within SAFE to draft the next revision of the ASP.
July 1-31	JLMSC Comment period	The proposed draft ASP revision is submitted to the JLMSC through a shared site (or email) for their review with feedback sent directly back to SAFE.
	WMSC comment period	The proposed draft ASP revision is submitted to the WMSC through the shared site (or email) for their review with feedback sent directly back to SAFE.
	Metro comment period	Metro leadership and employees invited to review and comment on the proposed draft ASP revision through dedicated intranet site.
August 1-15	JLMSC Approval	JLMSC is the first governing body to vote on whether to move forward with proposed changed to the ASP.
August 1-31	Finalize ASP Revision	The Director of Safety Policy and Promotion works within SAFE to ensure comments received on the proposed draft ASP revision are addressed.

September 1-30	WMSC/Metro review period	A final review is conducted to ensure all required feedback has been addressed, conditional approval from the WMSC is secured at the end of this review period and no further material changes are made. The GM/CEO approves the ASP.
October 1 to December 31	Metro Board Approval	The ASP is submitted to the Board for review and asked to vote on a resolution to approve the latest revision
	WMSC Board Approval	After securing approval from Metro's Board. The ASP is submitted to the WMSC for approval.
	ASP self-certification to the FTA	The Director of Safety Policy and Promotion partners with Strategy, Planning and Program Management (SPPM) to self-certify the latest ASP to the FTA through Transit Award Management System (TrAMS)
	ASP Revision Published	The Safety Promotion Manager partners with Customer Service, Communications and Marketing (CSCM) to communicate, distribute, and promote the publishing of the latest ASP and ensure SMS training and New Employee Orientation are updated (along with other training courses, as applicable).

1.3 Emergency Preparedness and Response Plan

The Office of Emergency Preparedness (OEP) is part of SAFE, reporting to the Vice President (VP) / Assistant Chief Safety Officer (VP/ACSO) of SMS Oversight. The department develops, maintains, and takes the lead in implementing security and emergency management documentation as required by 49 CFR 673.11(a)(6), hereby incorporated by reference as recommended by FTA.

The Emergency Operations Plan (EOP) serves as Metro's Emergency Preparedness and Response Plan. The EOP provides an overall framework for emergency operations for Metro's role in supporting incident or event operations throughout its service area in the National Capital Region. The EOP assigns roles and responsibilities across the Metro Transit Police Department (MTPD), SAFE, OEP and other departments and individuals for their preparedness prior to, and their implementation during, an incident or event. MTPD General Orders provide additional guidance for MTPD operations. Additionally, the EOP identifies employee responsibilities during an emergency and provides detail on the coordination with federal, state, regional, and local officials with roles and responsibilities for emergency preparedness and response in Metro's service area.

The documentation listed below specifies agency-wide plans, programs, and processes to manage the public safety and emergency management functions:

- EOP
- Continuity of Operations Plan (COOP)

- Flood Emergency Response Plan (FERP)
- Severe Weather Plan
- Family Assistance Plan
- Station Emergency Response and Evacuation Plan
- Procedures governing Sensitive Security Information and Significant Security Concern Reporting per 49 CFR 1580
- Standard Operating Procedures, and other departmental safety-critical documentation of daily tasks and activities

Jurisdictional agreements, including Memoranda of Agreement/Understanding (MOA/MOU), are also maintained by OEP. Corrective actions resulting from lessons learned, exercises, and related Emergency Preparedness activities are the responsibility of OEP in coordination with the other Metro departments.

1.3.1 Infectious Disease Mitigation

In accordance with the requirements introduced by the Infrastructure Investment and Jobs Act (IIJA) OEP maintains a dedicated Pandemic Flu Response Plan. This plan meets the requirements of 49 USC § 5329(d)(1)(D) by outlining the strategies being implemented to ensure the risk of infectious disease exposure is minimized for the public, personnel, and property. The Pandemic Flu Response Plan will continuously improve based on the lessons learned from the COVID-19 pandemic.

1.4 Safety Performance Targets

In coordination with SAFE and the Office of Transit Performance Management (PERF), each department establishes internal safety performance targets, which feed into the overall targets established for Metro. The targets are developed in alignment with the safety performance measures established by the FTA's National Public Transportation Safety Plan, specifically:

- **Fatalities:** Total number of fatalities (deaths confirmed within 30 days) reported to the National Transit Database (NTD), excluding trespassing and suicide-related fatalities. The rate is calculated per total Vehicle Revenue Miles (VRM) by mode.
- **Injuries:** Total number of customer and employee injuries reported to the NTD, excluding injuries resulting from personal security events, such as assaults. This includes both major (an NTD reportable criteria has been met, such as damage above $25,000) and minor (all others involving transport away from the scene due to injury, such as a slip/trip/fall on an escalator) events. The rate is calculated per total VRM by mode.
- **Safety Events:** Total number of safety events (excluding personal security events) that meet the NTD reporting threshold. Rate is calculated per total VRM by mode.
- **Assaults:** In accordance with the requirements introduced by the IIJA (49 USC § 5329(d)(1)(I)), assaults upon an operator or other transit employee that meet the NTD reporting threshold has been incorporated. Rate is calculated per total VRM by mode.

- **System Reliability:** Mean distance between major mechanical failures by mode. The NTD defines a major mechanical system failure as a failure of some mechanical element of the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or starting the next scheduled revenue trip because vehicle movement is limited or due to safety concerns.

1.4.1 Safety Performance Target Setting Methodology and Timeline

Safety performance targets are set in alignment with FTA's guidance as specified in the National Transportation Safety Plan. The approach used this year was adjusted to account for the dynamic realities experienced before, during, and after the COVID-19 pandemic. Historically, targets were established on a year-over-year basis. However, performance baselines have been established for each target, which is informed by Metro's performance for the past three-to-five years. This historical context accounts for performance across the pre-pandemic and pandemic timeframe as well as a variety of service and ridership levels. SAFE and PERF subsequently work with Metro leadership to develop target recommendations, factoring in previous performance, the strategic priorities for FY2023, external trends, and available resources. For measures where data was available, comparable performance information is collected from peer transit agencies to provide additional context. All safety targets aim to continue to improve performance relative to current or historical levels.

Safety Performance Target Setting Timeline	
Action	**Date**
PERF coordinates with SAFE to draft the safety performance targets for the following fiscal year	April
Metrorail, Metrobus, and MetroAccess review, finalize, and approve target proposals	May
Senior Executive Team review and approve the safety performance targets	June
WMSC reviews as part of annual ASP submission	July
The Transportation Planning Board at the Metropolitan Washington Council of Governments (MWCOG) reviews and provides concurrence.	Transmitted July 27, 2022

Following submission by Metro, MWCOG coordinates the safety performance targets with the jurisdictional partners (Virginia, Maryland, and Washington, D.C.). Metro will coordinate, to the maximum extent practicable, with the State and MPO to support the selection of state and MWCOG on transit safety performance targets.

1.4.2 Safety Performance Targets

The safety performance targets are established based on the incident rates, and then converted to counts based on the anticipated number of vehicle revenue miles where applicable. Continued implementation of the safety strategy defined in this ASP represents how Metro intends to strive toward achieving and exceeding these targets.

1.4.2.1 Safety Performance Target: Fatalities

No employee or customer should experience a fatality as a result of using Metro.

Metric	Bus Target	Rail Target	MetroAccess Target
Fatalities	0	0	0

1.4.2.2 Safety Performance Target: Injuries

Theoretically, all employees and customers should have a Metro experience that is free from harm. The following targets reflect Metro's commitment to move closer toward making this theory a reality.

Metric	Bus Target	Rail Target	MetroAccess Target
Customer Injury Rate*	56.4	20.6	15.6
Employee Injury Rate*	15.4	8.5	8.1
Overall Injury Rate* Combined	71.8	29.1	23.7
Overall Injury Count	433	104	43
Targeted performance improvement percentage	15%	15%	15%

**per 10 million VRM*

1.4.2.3 Safety Performance Target: Safety Events

The key to ensuring zero fatalities and reducing injuries is to continuously improve toward creating an environment that is conducive to consistent outcomes, which equates to experiencing less safety events. Consequently, the safety performance improvement targeted for safety events is consistent with the target for injuries.

Metric	Bus Target	Rail Target	MetroAccess Target
Safety Event Rate*	53.0	3.9	19.5
Safety Event Count	188	23	35
Targeted performance improvement percentage	15%	15%	15%

**per 10 million VRM*

1.4.2.4 Safety Performance Target: Assaults

No employee should have to worry about the threat of being assaulted at work. To achieve these targets, MTPD is taking the lead by employing the latest best practices and implementing a strategy composed of three pillars: education, outreach, and enforcement.

Metric	Bus Target	Rail Target	MetroAccess Target
Assault Rate*	10.0	10.0	0
Assault Count	36	60	0
Targeted performance improvement percentage	5%	17%	N/A

**per 10 million VRM*

1.4.2.5 Safety Performance Target: System Reliability

Maintaining the system in a State-Of-Good-Repair (SOGR) is the foundation for Metro to produce produces consistent, repeatable outcomes that create an environment conducive to a safe experience. Historically, rail reliability targets were based on mean time between mechanical failure whereas the bus and MetroAccess modes were based on mean time between delay. Target setting has continuously improved in this area with the calculations based on mean time between delay standardized across all three modes. Additionally, the 7000 series railcars performance is significantly different in terms of the number of miles travelled and reliability compared to the legacy fleet (2000, 3000, and 6000 series), so specific targets have been established as reflected in the table below.

Metric	Bus Target	Rail Target	MetroAccess Target
System Reliability (mileage in terms of Mean Distance Between Delay)	8,200	56,500 (7k Fleet) 14,000 (Legacy Fleet)	22,000
Targeted performance improvement percentage	9%	5% (7k) 4% (Legacy Fleet)	3%

1.5 Development and Implementation of a Safety Management System

Establishing and implementing a robust SMS that is appropriately scaled to the size, scope, and complexity of Metro requires a strategic, deliberate multi-year effort. Therefore, SAFE has established an SMS Strategic Roadmap (depicted in Figure 1) that reflects the key priorities and milestones that will be accomplished to establish the SMS. The roadmap is organized in accordance with the four components of SMS: Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion against a multi-year timeline. The SMS Strategic Roadmap is considered a living document that is updated regularly to reflect the latest priorities, additional milestones, and progress completed. Each lane of the roadmap is addressed in more detail throughout this ASP.

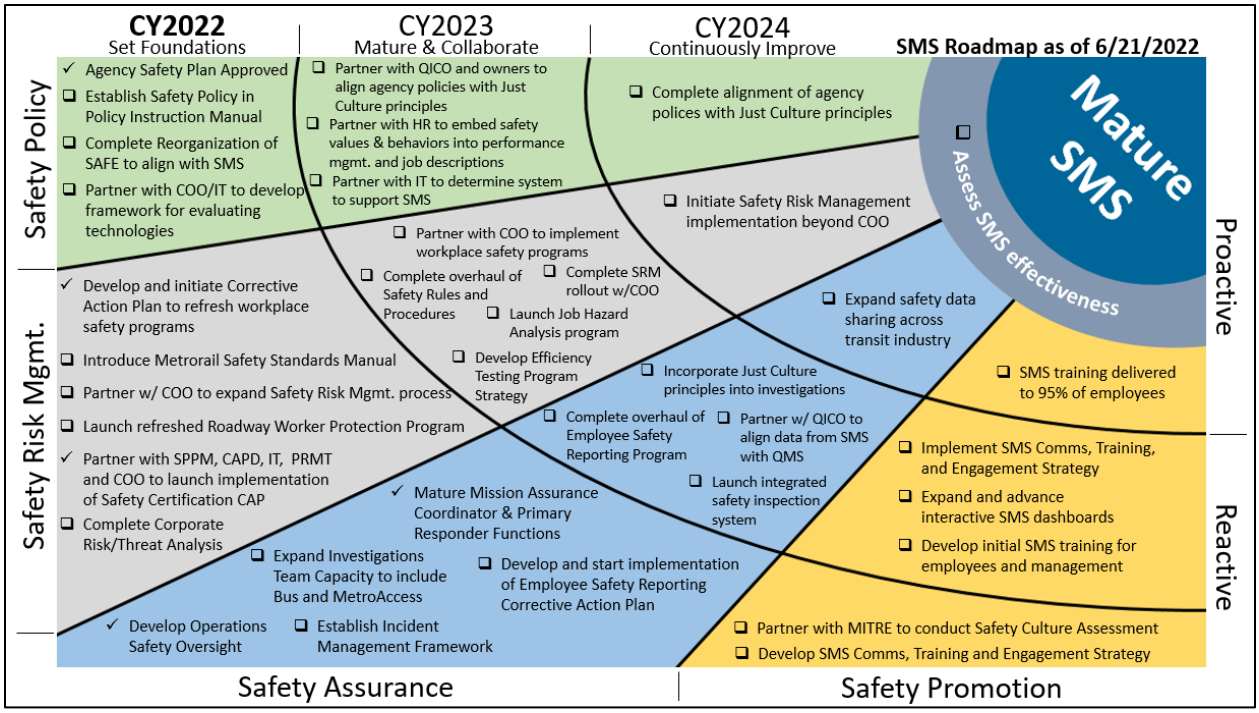
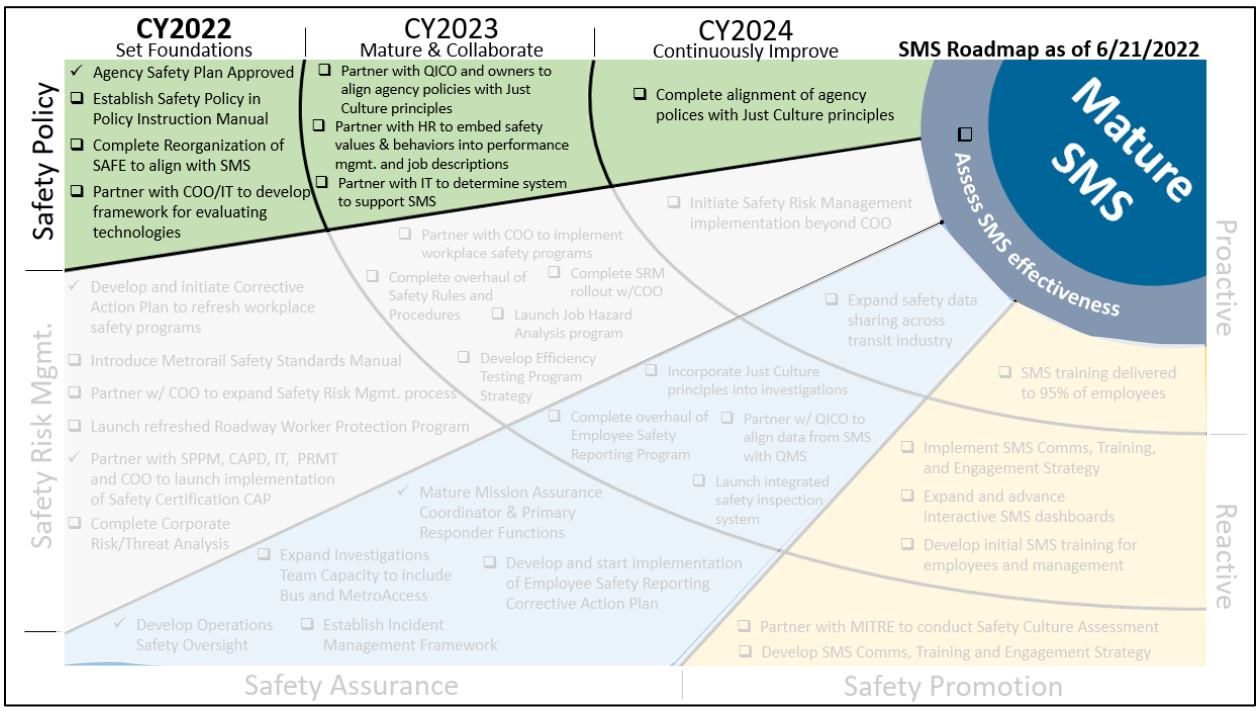


Figure 1 SMS Strategic Roadmap

2.0 Safety Management Policy



The Safety Management Policy component of Metro's SMS has been designed to meet the requirements established by the FTA and WMSC. As reflected in the SMS Roadmap, Calendar Year (CY) 2022 started with the latest iteration of the ASP taking effect after approval had been secured by the WMSC. This achievement represents a foundational milestone that enables Metro to continue SMS development and implementation. In accordance with 49 CFR Part 673.23 *Safety Management Policy* and WMSC's Program Standard, this section of the ASP includes:

- 2.1 – Safety Management Policy
- 2.2 – Employee Safety Reporting Program
- 2.3 – Communication of the Safety Management Policy
- 2.4 – Necessary Authorities, Accountabilities, and Responsibilities

Additionally, the Safety Policy segment of the SMS roadmap includes key programmatic milestones that have been prioritized to advance SMS development and implementation. This section also specifies the progress made and next steps toward achieving these milestones:

- Establish Safety Policy in the Policy Instruction Manual
- Complete Reorganization to align SAFE with SMS
- Develop a Framework for Evaluating Technologies

2.1 Safety Management Policy Overview

The Safety Policy segment of Metro's SMS includes the milestone to *Establish Safety Policy in the Policy Instruction Manual*. Metro's Safety Management Policy has been a part of this ASP since its inception. By including the Safety Management Policy in the Policy Instruction Manual, the Safety Management Policy becomes a part of Metro's overall policy framework. Integrating into Metro's policy framework will expand the Safety Management Policy's influence as the agency strives to align other policies with the principles of SMS in CY 2023 and beyond. Metro prepared a Safety Management Policy Letter (included at the beginning of this ASP), which has been crafted to promote the Safety Management Policy in plain language that resonates with employees at every level. Metro's Safety Management Policy will also continue to be a part of this ASP as an appendix. Refer to Appendix A Policy/Instruction (P/I) 10.8 *Metro's Safety Management Policy*.

2.1.1 Safety Management Policy Statement

The GM/CEO's Safety Management Policy Statement:

In accordance with the safety management philosophy and approach, one of the GM/CEO's main responsibilities is to build and maintain an industry-leading safety culture and SMS in accordance with the FTA's adoption of the SMS approach in its National Public Transportation Safety Plan. This ASP establishes Metro's FTA-compliant SMS as the primary strategy to achieve this goal. This Policy Statement also certifies that the ASP is compliant with 49 CFR Part 673 Public Transportation Agency Safety Plan, 49 CFR Part 674 State Safety Oversight and the WMSC's Program Standard.

Safety management is a core value of Metro. All employees are accountable for appropriately identifying and effectively managing risk in all activities and operations to deliver continuous safety improvement and reduce safety risks as low as reasonably practicable in service delivery, starting with the GM/CEO.

In accordance with the FTA's National Public Transportation Safety Plan, and 49 CFR 673.23(a), Metro's safety objectives are:

- Support the management of safety through the provision of appropriate and sufficient resources in order to reduce risks to as low as reasonably practicable; and to achieve an organizational culture that fosters safe practices, encourages effective employee safety reporting and communication, and actively prioritizes the management of risk
- Integrate the management of safety among the responsibilities of all departments/offices and employees
- Define for staff, executive management, technical management and front-line employees alike, their accountabilities and responsibilities for the delivery of the organization's safety performance
- Establish and operate effective safety risk identification, assessment, and mitigation activities based on SMS safety risk management principles, including an employee safety reporting program that provides a fundamental source for safety concerns and hazard identification, in order to proactively mitigate safety risks

- Ensure that no action will be taken against any employee who discloses a safety concern unless disclosure indicates an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures
- Comply with, and wherever possible exceed, legislative and regulatory requirements and standards
- Ensure that skilled and trained human resources are available to implement SMS processes
- Ensure that communications and training result in employees knowing their role within SMS and how to implement the associated processes and tools that are commensurate with their skillset to drive its effectiveness
- Establish safety performance targets and measure against data-driven safety performance indicators
- Continually improve our safety performance through management processes that ensure that appropriate mitigating action is taken and effective
- Ensure the services and products provided in support of Metro's operations are implemented in compliance with SMS as specified in this ASP; this policy will be visibly communicated through my own direct efforts, the efforts of the senior executive team, senior management team, and through training programs and procedures

I affirm this commitment:

Randy S. Clarke,
General Manager and Chief
Executive Officer
Accountable Executive

Date

2.2 Employee Safety Reporting Program

Metro has multiple avenues by which employees and contractors can report safety concerns, risks, and hazards. All hazard reports are properly documented by the receiving party, no matter the source. Investigations of hazards are properly documented per P/I 10.4 *Incident and Accident Investigation* and distributed according to that P/I and supporting procedures.

Metro's SMS requires all employees and contractors to identify hazards, mitigate them immediately if possible, and to report them. This includes reporting a Close Call when involved directly or witnessing a near-miss incident, or if a reported safety concern persists. Metro strives for a culture where employees and contractors feel comfortable verbally reporting their safety concerns to their direct supervisor, senior management, SRC, or SAFE teammates as soon as they are discovered. However, there may be circumstances where employees and contractors prefer reporting outside their chain of command to maintain confidentiality, anonymity, and to avoid retaliation. Metro's Safety Management Policy specifically prohibits retaliation, but the concern may still exist. Consequently, the following reporting methods are available:

- Departmental Safety Risk Submission Form, which sends the report directly to their department's Safety Risk Coordinator (SRC) for response and action. Upon receipt, the SRC enters the submission and corresponding actions into the hazard management application of Metro's Safety Measurement System to document, track, and report on the response.
- Employees may report any perceived safety issue or hazard to a local safety committee (LSC) representative for investigation and resolution. LSCs capture these concerns on locally managed trackers to document and track to completion. However, concerns are escalated through the Safety Measurement System when their magnitude may extend beyond the local level or additional help is needed.
- The Safety Hotline is available for reporting safety concerns 24 hours a day, 7 days a week. Reports can be made by calling 202-249-SAFE (7233) or by accessing the online form on SAFE's page on Metroweb (Metro's intranet). Refer to OAP 600-12 *Safety Hotline Process*. Once reported to the Safety Hotline, a Safety Specialist will be assigned to investigate the reported issue(s) and coordinate with the responsible department to implement mitigations, which are tracked in Metro's Safety Measurement System. Once implemented the Safety Specialist will follow up with the employee if contact information is provided. The employee will have the option of speaking to a Safety Specialist at any time while maintaining their anonymity.
- Safety concerns received by the Office of Customer Service (CSVC) directly or through social media are reviewed by a Safety Specialist and coordinated with the responsible department to implement mitigations, which are tracked in Metro's Safety Measurement System. Actions taken are reported to CSVC for response to customers.

- The Office of the Inspector General (OIG) may forward safety concerns to SAFE. If anonymity has been requested, this will be maintained by OIG and SAFE. A Safety Specialist will review the concern and coordinate with the responsible department to implement mitigations. If an investigation is required (either deemed required by SAFE or requested by the OIG), the resulting Internal Corrective Action Plans (ICAPs) will be coordinated with the responsible department for action. These ICAPs are tracked by SAFE along with all other Safety ICAPs in Metro's Safety Measurement System with the results reported back to the OIG.

Metro became the first transit agency to launch a Confidential Close Call Reporting System (C3RS) in July 2013. The C3RS program builds upon the other initiatives Metro has put in place to encourage employees to report safety concerns. The C3RS program allows Metro to gather information about unsafe conditions and near misses, investigate potential hazards and act to prevent more serious safety incidents, address practical drift, or identify and monitor emerging trends.

C3RS is available 24 hours a day; 7 days a week. Employees shall report a close call when they are involved directly or witness a near-miss incident, or if a reported safety concern persists. Under the program, the employee's information is kept confidential with the federal law Confidential Information Protection and Statistical Efficiency Act (CIPSEA), making the employees information free from being subpoenaed or requested through the Freedom of Information Act (FOIA). Violation of CIPSEA carries penalties of up to $250,000 and/or up to five years of imprisonment. There are certain conditions that do not qualify for protection under the C3RS program.

There are conditions when a reporting employee is not protected from discipline, per the MOU with the Department of Transportation's Bureau of Transportation Statistics (BTS). The following events do not qualify for protection from discipline under the Program:

- The employee's action or lack of action was intended to damage Metro's operations or equipment, or injure other employees, or the employee's action or lack of action purposely places others in danger (i.e., sabotage)
- The employee's action or lack of action involved a criminal offense
- The employee's action or lack of action violated a traffic safety law leading to a citation (e.g., red light cameras, speed cameras, or observed by law enforcement)
- The employee's behavior involved substance abuse or inappropriate use of controlled substances
- The close call report contains falsified information;
- The event resulted in a transit agency accident/incident and/or has caused or alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event
- The event resulted in an identifiable release of a hazardous material/major reportable spill

In addition, the following specific events may not qualify for protection under the Program:

- Rail
    - Station overrun of more than one door leaf
    - Exceeding the limits of an absolute or permissive block
    - Red signal violation by train or work equipment
    - Wrong side door opening
    - An employee is not exempt from discipline for a violation that Metro identifies contemporaneously (e.g., any rail vehicle passes a red signal without proper authorization and the control point (ROCC/Interlocking Operator) notices it before the vehicle completely clears the associated switch) before the employee files a close call report; In such situations Metro may use event recorder information to support discipline; For example, a Metro official who observes a revenue or maintenance vehicle operate past a signal that requires a stop may use any relevant data recorded by the train's event recorder in pursuing disciplinary action against the employee(s), regardless of whether he/she/they timely file a close call report
- ROCC / Power Operations Center
    - Third Rail Power restoration violations to include restoring third rail power when personnel have not cleared and giving personnel permission to restore power (clear a Red Tag) or Supervisory Outage when personnel have not cleared the work location
- Bus
    - Rollaway bus involving the operator's failure to follow procedures for proper vehicle securement

If an employee feels that retaliation has taken place as a result of reporting a safety concern, they are encouraged to work with their labor representatives (if represented) or Human Capital (if non-represented). Policies related to employee conduct have been established to ensure a fair and consistent review that reflects Metro's commitment to protect employees from retaliation.

SAFE responds to the safety-related reports received and shares outcomes directly with employees and contractors, through employee communications (such as articles in *MetroVoices, MetroWire* Newsletter, Safety Bulletins, and Safety Alerts), on the SAFE page of the MetroWeb, and through other safety promotional campaigns. Additionally, as Metro's SMS matures, each department's interactive SMS dashboard will provide employees with information on the risks being actively managed, status of corresponding mitigations, metrics that measure effectiveness, and the ability to report concerns or provide feedback. The dashboard launched in CY 2021 gets updated as each department implements SMS Safety Risk Management in accordance with section 3.0 *Safety Risk Management*.

To achieve the SMS Roadmap Milestone, *Develop and start implementation of Employee Safety Reporting CAP*, Metro became the first transit agency in the industry to establish a partnership with MITRE. A non-profit, MITRE operates Federally Funded Research and Development Centers to assist the United States government with scientific research and analysis; development and acquisition; and systems engineering and integration. MITRE also conducts an independent research program that explores new and expanded uses of technologies to solve problems. MITRE has been an essential partner to the airline industry, helping that transportation mode become the safest in the world. The Metro/MITRE partnership will focus on continuously improving employee safety reporting through assessing the agency's safety culture, developing a voluntary safety reporting tool that integrates and harmonizes the various reporting mechanisms that exist, and enhancing data analytics to increase visibility into patterns and trends in reporting to reveal actionable intelligence.

2.3 Communication of the Safety Management Policy

Metro's Safety Management Policy and Policy Statement will continue to be actively communicated throughout Metro. This communication includes two parts: 1) the dissemination and display of the documentation so that personnel can access them directly and 2) the dissemination and display of supporting materials to help personnel understand its application to their varied contexts and work environments. The engagement starts with the New Employee Orientation (NEO) training and gets reinforced as part of job-specific training, toolbox talks, and job safety briefings. Metro is also conducting a safety culture assessment designed to understand the current state of Metro's safety culture and capture the feedback required to continuously improve how Metro engages with its employees and contractors to share safety information.

Additionally, the Safety Policy and Policy Statement will be disseminated throughout the agency through Safety Bulletins, print and digital signage and other forms of employee communications (such as the safety letter, newsletters, podcasts, etc.). These will be displayed throughout the system, particularly in areas where personnel congregate like breakrooms and waiting areas. SAFE will also partner with the COO to use their Sprint program and other employee engagement techniques to ensure that management and front-line staff have conversations about the Metro's safety policy and how it applies to their unique environments.

The primary safety communication responsibility of executive management at Metro under the requirements of 673.23(c) is to actively and personally communicate the Safety Management Policy to employees and contractors. Any changes to the Safety Management Policy must be approved and distributed by the senior executive team to employees and contractors.

This is primarily implemented through the committee process, but every executive is also required to visibly endorse the Safety Management Policy to employees in their area of responsibility. This is demonstrated by the senior executive team's approval of this ASP, their cascading of Safety Communications, designation of SRCs, and partnership in driving the implementation of SMS, which is essential for long-term success.

2.4 Necessary Authorities, Accountabilities, and Responsibilities

The scope and magnitude of SMS encompasses the entire organization. Consequently, the success of SMS depends on support from across Metro. At a minimum, every employee and contractor at Metro has the responsibility to report safety concerns when they are identified. This responsibility includes actively engaging in the processes described in section 2.2 *Employee Safety Reporting*. This section expands on the Necessary Authorities, Accountabilities, and Responsibilities identified in P/I 10.8 *Safety Management Policy*. The following Responsible (R), Accountable (A), Consulted (C), and Informed (I) matrix summarizes the support required from Metro leadership and key staff to ensure the successful establishment and implementation of SMS. The ensuing sub-sections expand on the matrix to outline the specific needs identified for each position.

Role and Title		General Requirements	Safety Management Policy	Safety Risk Management	Safety Assurance	Safety Promotion
AE	General Manager and Chief Executive Officer	A	A	A	A	A
SMS Exec	Executive Vice President and Chief Safety Officer	R	R	R	R	R
Agency Leadership and Executive Management	Executive Vice President and Chief Operations Officer	R	R	R	R	R
	Executive Vice President and Chief External Relations	C	C	C	C	R
	Executive Vice President and Strategy Planning and Program Management	C	C	C	C	C
	Executive Vice President and Chief Internal Compliance	C	R	R	R	C
	Executive Vice President and Chief Financial Officer	C	C	C	C	C
	Executive Vice President and Chief Internal Business Operations	C	C	C	C	C
	Executive Vice President and Capital Delivery	C	C	R	R	R
Key Staff	Vice President of SMS Administration	R	C	R	C	C
	Vice President of SMS Oversight	R	C	C	R	C
	Director of Safety Policy and Promotion	R	R	C	C	R
	Safety Risk Coordinators	C	C	R	R	R

2.4.1 Accountable Executive

The GM/CEO is Metro's Accountable Executive. The GM/CEO is ultimately accountable for ensuring that SMS is implemented throughout the Metro system in accordance with this ASP. Additionally, the GM/CEO is accountable for ensuring action is taken to address sub-standard performance in Metro's SMS when required.

Metro's GM/CEO meets the FTA criteria for the Accountable Executive designation:

- Has the final authority over Metrorail, Metrobus and MetroAccess operations and maintenance
- Controls the financial resources required for the operations and maintenance of Metro's public transportation system
- Controls the human resources required for the operations and maintenance of Metro's public transportation systems

As the Accountable Executive, the GM/CEO has the following responsibilities for ensuring the SMS:

- Is properly implemented and performed throughout the Metro organization, including employee reporting programs
- Is actively and continuously communicated throughout Metro
- Is implemented in a manner that ensures that all executive level personnel are held responsible for their spheres of control; and each actively and continuously communicates the Metro SMS Policy and the area-specific SMS requirements to all employees in their areas
- Is the signatory to this ASP and the Transit Asset Management Plan (TAMP), and is responsible to know and understand the contents of both documents
- Is appropriately addressed system wide; and participates actively on the ESC to guide Metro in safety and risk management, understand all risks at the agency, actively directs resource allocation activities and monitors safety performance of all areas
- Directs all required actions to mitigate SMS non-compliances, unacceptable and undesirable risks and implement continuous improvement activities

2.4.2 SMS Executive

Metro's EVP/CSO has been designated by and reports to the GM/CEO. The EVP/CSO is a safety professional that has been adequately trained, holding both the DOT TSSP and PTSCTP certificates (among other credentials). The EVP/CSO has been empowered with the responsibility for day-to-day implementation and operation of Metro's SMS. The EVP/CSO leads SAFE and does not serve in any other operational or maintenance capacities.

Metro's SMS Roadmap includes the milestone, *Complete Reorganization to align SAFE with SMS*. SAFE is being reorganized and positioned to ensure the long-term, sustained success of SMS. Figure 3 reflects the SAFE organization. The dark blue boxes reflect the organizational current state and the lighter blue boxes reflect the remaining areas to be developed as part of achieving the organizational future state.

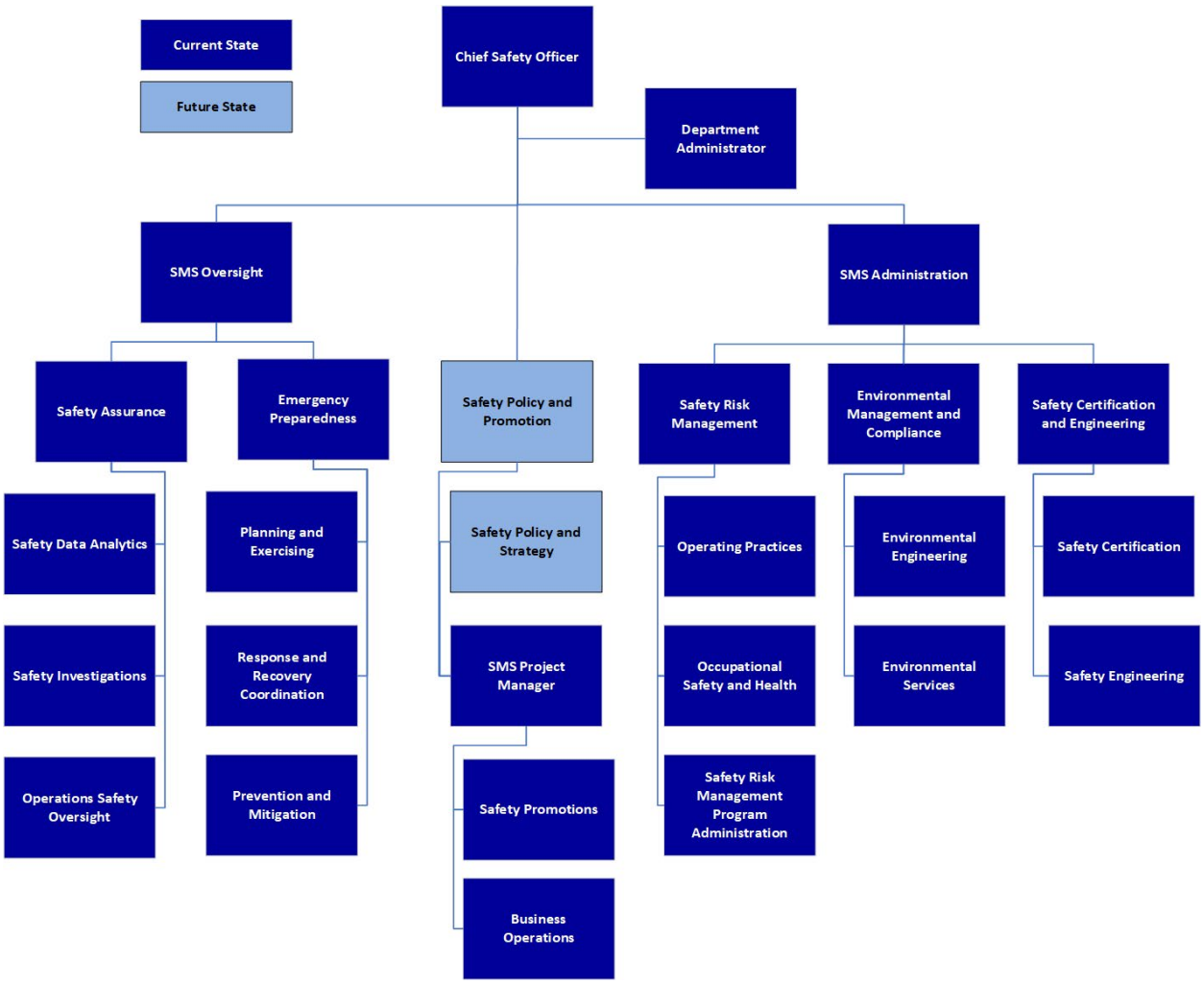


Figure 3. SAFE Organization

2.4.2.1 SMS Oversight

The VP/ACSO of SMS Oversight is responsible for the Safety Assurance and Emergency Preparedness functions within SAFE. Additionally, the VP/ACSO of SMS Oversight is ultimately accountable for ensuring completion of the milestones reflected in the Safety Assurance segment of the SMS Roadmap. The Safety Assurance function includes the teams performing Safety Data Analytics, Safety Investigations, and Operations Safety Oversight.

1) The Safety Data Analytics team is responsible for measuring the effectiveness of Metro's SMS in terms of mitigating safety risks. Additionally, the Safety Data Analytics team measures, tracks, and reports on Metro's performance against the targets outlined in this ASP, complies with safety data regulatory reporting requirements, and conducts analysis on patterns, trends, and other performance indicators to inform priorities and mitigating actions. The Safety Data Analytics teams uses Metro's Safety Measurement System, which is an internally developed software capability that aggregates across Metro's IT enterprise architecture to collect the data required to fulfill their responsibilities.

2) The Safety Investigations team is responsible for performing investigations in accordance with section 4.1.3 *Safety Investigations* and SOP 800-01 *Incident and Accident Investigations of Rail, Bus, and MetroAccess*. The resulting Recommended Corrective Actions (RCAs) are managed in Metro's Safety Measurement System to ensure implementation is actively overseen, tracked, and managed to completion.

3) The Operations Safety Oversight team is responsible for assuring that safety risk management process is being followed (compliance) and working as intended (effectiveness). This includes safety performance monitoring, audits, inspections, reviews, and responding to reported safety concerns to ensure they are documented in the Safety Measurement System and coordinated with the responsible department for action. Additionally, this team has the responsibility to perform oversight of Metro construction projects to ensure contractors are compliant with local, federal, and agency safety polices and requirements. The Operations Safety Oversight team is vested with the authority to interdict work by employees or contractors if a safety deficiency or violation is observed during audits, inspections, or other oversight activity.

The Emergency Preparedness function is composed of three teams that work together to improve performance and reduce risk in how Metro manages incidents. While these teams lead the efforts outlined, there are also specific roles in emergency preparedness and emergency operations across Metrorail departments, which are described explicitly in the EOP, companion polices, and SOPs.

1) The Planning and Exercising team is responsible for developing and maintaining emergency preparedness plans, response procedures, and evacuation processes, and also owns the design and development of incident management exercising and trainings for Metro staff and jurisdictional first responder agencies.

2) The Response and Recovery Coordination team staffs the Mission Assurance Coordinator (MAC) role in the ROCC, 24/7. The standard operating procedures, training, and roles and responsibilities of MAC are undergoing finalization to fully and accurately integrate into the overall ROCC emergency preparedness and incident management function with the overall objective of assuring effective emergency response and incident management with customer safety being the mission of the MAC.

3) The Prevention and Mitigation team is responsible for preventing incidents through proactive identification and mitigation of fire-life-safety hazards in accordance with 700-WI001 *Fire Inspection Procedure*, and coordinating the incident after action process, identifying lessons and managing CAPs across the departments to continuously improve the management of incidents.

2.4.2.2 Safety Policy and Promotion

In CY 2023, SAFE intends to hire a Director of Safety Policy and Promotion that will be responsible for the Policy, Promotion, and business operations within SAFE. The Director of Safety Policy and Promotion will also be accountable for ensuring completion of the milestones reflected in the Safety Policy and Safety Promotion segments of the SMS Roadmap. In the current state, these roles and responsibilities are shared among the VP of SMS Administration and SMS Project Manager. Additionally, the SMS Project Manager owns the milestone to *Develop a Framework for Evaluating Technologies* in partnership with COO and Information IT. The objective is to formalize Metro's understanding of the potential to continuously improve how Metro manages its safety risks through the incorporation of novel technologies.

1) In CY 2023, SAFE intends to establish a Safety Policy and Strategy team that is primarily composed of project managers responsible for maintaining the Safety Management Policy, SMS Roadmap, and this ASP. This includes the SMS Roadmap's tactical action plans, which are designed to ensure the milestones established are being implemented in a methodical, disciplined manner. This team also manages key strategic initiatives, such as aligning policies and procedures with Just Culture principles (which are discussed in more detail in section 5.0 *Safety Promotion*) and implementation of the document management system, *MetroDocs*.

2) The Safety Promotions team is responsible for developing and implementing the employee and contractor engagement strategy in partnership with CSCM. This includes targeted campaigns to encourage employee safety reporting (such as the campaigns *Be a Hero Before we Need One* and *That's Doing Your Part*), safety communications (such as videos, bulletins, and articles in Metro's newsletter, *MetroVoices*), recognition events (such as *MetroAwards*), and other activities. The Safety Promotions team is also responsible for developing training related to SMS in accordance with section 5.1 *Competencies and Training*, maintaining the SAFE page on *MetroWeb*, and partnering with CSCM on customer and community engagement.

3) The Business Operations team is responsible for managing functions within the SAFE department related to Human Resources, financial management, procurement, and other administrative requirements.

2.4.2.3 SMS Administration

The VP/ACSO of SMS Administration is responsible for the Safety Risk Management, Environmental Management and Compliance (EMAC), and Safety Certification and Engineering functions. Additionally, the VP/ACSO of SMS Administration is ultimately accountable for ensuring completion of the milestones reflected in the Safety Risk Management segment of the SMS Roadmap. Safety Risk Management includes the following teams: Operating Practices, Occupational Safety and Health, and Safety Risk Management Program Administration.

1) The Operating Practices team is responsible for maintaining Metro Safety Standards and managing the Rail Safety Standards Committee (RSSC). This includes supporting the initiative to overhaul the Metro Safety Rules and Procedure Handbook (MSRPH), issuing Temporary Orders and Permanent Orders, and associated coordination activities.

2) The Occupational Safety and Health team is responsible for administering the programs required to ensure compliance with internal and external regulatory requirements, including those in 29 CFR Part 1910 *Occupational Safety and Health Standards.* The Occupational Safety and Health team serves as subject matter experts in the disciplines of industrial hygiene, occupational safety, and construction safety engineering.

3) Safety Risk Management Program administration includes the program specialists responsible for facilitating the implementation of proactive Safety Risk Management across Metro as reflected in section 3.0 *Safety Risk Management*. The leader of this team (Sr. Director of Safety Risk Management) also provides subject matter expertise in Human Factors. Additionally, this team administers programs related to safety committees and employee safety reporting.

EMAC includes the teams performing Environmental Engineering and Environmental Services in accordance with section 5.2.4 *Environmental Management*, Environmental Management Policy and Program Manual (EMPM) and Environmental Standard Operating Procedures (ESOPs). The Environmental Engineering team is responsible for ensuring the controls required to comply with regulatory requirements are in place and working as intended. The Environmental Services team ensures compliance to managing hazardous materials and disposal of hazardous waste, among other services to effectively manage and reduce pollution.

Safety and Security Certification is a series of processes that collectively verify the safety and security readiness of a project for public use. Safety Certification encompasses the entire project lifecycle and requires continuous involvement to ensure that hazards are proactively mitigated to reduce safety risks, resulting in the avoidance of safety events. The Safety Certification and Engineering team develops and implements Metro's *Safety and Security Certification Program Plan*, which includes but is not limited to:

- Maintaining and administering the Safety and Security Certification program
- Completing the *SSC Project Assessment Form* #100-F-005 with each project manager to validate safety and security requirements
- Supporting development and conducting reviews of Preliminary Hazard Analyses (PHAs), Operational Hazard Analyses (OHAs), Certifiable Item Lists (CILs), and related deliverables
- Developing Temporary Use Notices (TUNs), Certificates of Compliance (COCs), Hazard Tracking Logs for PHAs and OHAs, and Safety and Security Certification Verification Reports (SSCVRs)
- Performing verification on CILs covering design, construction/installation, testing, pre-revenue service, and operational requirements.
- Chairing and managing the Safety Certification Review Committee (SCRC)

2.4.3 Agency Leadership and Executive Management

In addition to the GM/CEO and EVP/CSO, the senior executive team includes the EVP and Chief Operations Officer (COO), EVP and Chief of External Relations (EXRL), EVP of Strategy Planning and Program Management (SPPM), EVP and Chief of Internal Compliance (INCP), EVP and Chief Financial Officer (CFO), EVP and Chief of Internal Business Operations (IBOP), and EVP and Capital Delivery (CAPD). At a minimum, these leaders has been consulted on the development of this ASP, own the responsibility for reviewing this ASP, understand the roles and responsibilities required of them and their organizations, and ultimately, approve. Metro's executive leadership is accountable for the safety performance of their respective departments. The following sub-sections provide an overview on each of their respective departments to include additional responsibilities, accountabilities, and authorities related to SMS where applicable.

2.4.3.1 Operations

The EVP/COO reports directly to the GM/CEO. The EVP/COO participates on the ESC, champions the Safety Policy, implements Safety Risk Management, cooperates with Safety Assurance, and participates in Safety Promotion as outlined in this ASP.

COO's mission is to move the region through safe, reliable, and affordable public transportation. COO staff operate buses and trains; maintain Metro vehicle fleets, facilities, and rail infrastructure; execute certain capital programs; and ensure a safe and secure environment for passengers and employees. The department consists of Rail Services (RAIL), Bus Services (BUS), Access Services (ACCS), MTPD, the Office of Operations Budget, Performance, and Planning (OBPP), and Business Process Development (BPDV) which includes: Reliability Engineering and Asset Management (REAM), Supply Chain Management (SCM), and Facilities, Systems and Vertical Transportation (FSVT). As the COO's office has the largest exposure to safety risk, their departmental summaries are provided below.

2.4.3.1.1 Rail Services

The RAIL division operates and maintains Metro's rail system in a safe, reliable, and efficient manner providing service across 130 miles of track and 98 stations, 40 of which are in Washington, D.C., 26 in Maryland, and 32 in Virginia. RAIL is responsible for rail operations including station operations, train operations, and the maintenance of all assets necessary to move customers through the system including railcars, track, traction power and the automatic train control system.

RAIL is composed of the following groups:

- Rail Administration (RAIL ADM)
    - Power Operations Center (located within ROCC)
- Rail Transportation (RTRA)
- Chief Mechanical Officer (CMOR), which includes:
    - Car Maintenance (CMNT) and
    - Chief Engineer Vehicles (CENV)
- Silver Line Operations and Maintenance (SLOM)
- Rail Infrastructure Maintenance and Engineering (RIME), which includes:
    - Track and Structures (TRST)
    - Automatic Train Control Maintenance (ATCM)
    - Traction Power Maintenance (TRPM), and

- Maintenance of Way Engineering (MOWE)
- Wayside Work Planning (WWPL)

The MTPD protects and serves Metro customers and employees through best practices in law enforcement and community outreach. MTPD police officers have jurisdiction and arrest powers throughout the 1,500 square mile Transit Zone that includes Maryland, Virginia, and the District of Columbia for crimes that occur in or against Transit Authority facilities. MTPD is the only tri-jurisdictional police agency in the country and serves a population of approximately 4 million. MTPD personnel serve as the Metro Incident Commander during any incident involving life safety as reflected in the EOP. Additionally, MTPD and SAFE coordinate the investigation of safety incidents in accordance with PI 10.4/1 *Incident and Accident Investigation* and MTPD participates in OEP's Exercise program. MTPD also includes the Office of Professional Responsibility (OPRI) and Inspections Office of Security and Infrastructure (OSI).

2.4.3.1.2 Bus Services

BUSV is committed to providing safe, equitable, reliable, and cost- effective public transit. BUSV serves the District of Columbia, Maryland, and Northern Virginia. The Metrobus system, with a fleet of over 1,500 buses serving more than 10,000 bus stops throughout the region, has a broad reach and is essential to the region's transportation system.

BUSV is composed of the following groups:

- Bus Administration (BUS ADM)
- Bus Engineering (BENG)
- Bus Maintenance (BMNT)
  - Andrews Federal Maintenance (AFMT)
  - Bladensburg Maintenance (BLMT)
  - Cinder Bed Maintenance (CBMT)
  - Four Mile Run Maintenance (FMMT)
  - Landover Maintenance (LNMT)
  - Montgomery Maintenance (MOMT)
  - Shepherds Parkway (SPMT)
  - Southern Avenue (SAMT)
  - West Ox Maintenance (WOMT)
  - Western Maintenance (WEMT)
  - Bus Maintenance Training
  - Heavy Overhaul
  - Service Vehicle Management
  - Bus Technology and Business Operations
- Bus Transportation (BTRA)
  - Andrews Federal Transportation (AFTR)
  - Bladensburg Transportation (BLTR)
  - Cinder Bed Transportation (CBTR)
  - Four Mile Run Transportation (FMTR)
  - Landover Transportation (LNTR)
  - Montgomery Transportation (MOTR)
  - Shepherds Parkway Transportation (SHTR)

- Southern Avenue Transportation (SATR)
- West Ox Maintenance Transportation (WOTR)
- Western Transportation (WETR)
- Bus Training and Administration
- Bus Operations Communications Center (BOCC)
- Bus Video Recovery
- BRTRA Strategic Programs

2.4.3.1.3 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. Access Services also administers Metro's Reduced Fare Program for people with disabilities, as well as the Free Ride Program for customers who are conditionally eligible for paratransit service. The department, through its three program offices, (ADA Policy and Planning, Eligibility Certification and Outreach, and MetroAccess Service), ensures the continuous improvement of all of Metro's accessible services and facilities. These improvements benefit the public and have important safety ramifications. Continually promoting and educating people with disabilities on the safe and independent use of Metro's accessible fixed-route services helps ensure that paratransit services are conserved for those individuals who truly need them.

ACCS is composed of the following groups:

- ADA Policy and Planning (ADAP)
- Eligibility Certification and Outreach (ELIG)
- MetroAccess Service (MACS)

2.4.3.1.4 Facilities, Systems, and Vertical Transportation Maintenance

FSVT is to support Metrobus and Metrorail operations and maintain infrastructure and equipment systems in a state of good repair by providing a coordinated approach to maintain elevators and escalators, electro-mechanical equipment systems, infrastructure, facilities, and grounds.

FSVT includes:

- Elevators and Escalators (ELES) which manages and maintains all vertical transportation equipment within the auspices of the Authority;
- Plant Maintenance (PLNT) that manages and maintains Metro's facilities, grounds, and mechanical equipment systems in support of Metrorail and Metrobus operations;
- Facilities Asset Management Office (FAMO);
- Systems Maintenance (SMNT) which manages the electronic and electrical maintenance activities related to Metrorail wayside operations. SMNT is composed of the following:
  - Automatic Fare Collection Section (AFCS) manages the installation, maintenance, and repairs of fare collection and parking lot equipment;
  - Communications Sections (COMM) maintains Metro's communications systems in support of Metrobus, Metrorail and Metro Transit Police Department operations, as well as fire/life safety systems to help ensure public safety;
  - Low Voltage Electrical Maintenance (LVEM) maintains and distributes all 480-volt electrical systems for Metro's facilities; and

- Shops and Material Support (SAMS) provides component-level repair and supports procurement actions for all SMNT.

2.4.3.1.5 Budget, Performance, and Planning

OBPP provides administrative and analytical support for COO, using data effectively to facilitate decisions and improve operational performance. Operations Management Services (OPMS) ensures Metro's internal clients are well equipped to serve our customers, providing direct support to the COO organization in areas of budgetary development/ management, all-inclusive training for technical skills and rail transportation, and consistent accountability to improve workforce availability. PERF assists Metro in achieving its strategic goals by measuring and publicly reporting results via a set of Key Performance Indicators (KPIs), producing and presenting the quarterly Metro Performance Report to the Board of Directors, communicating why performance has changed and what actions will be taken to improve any deficiencies. PERF works collaboratively across the agency to turn data into performance information to help prioritize decision making through performance reporting, target-setting, monthly performance stat meetings, industry benchmarking and business plan development. Office of Intermodal Planning (IPLN) conducts operations planning for rail and bus operations, including headway and route definitions, manpower and vehicle requirements. In addition, IPLN coordinates the implementation of all changes for work assignments, signage changes, facility improvements and coordination efforts with other local carriers and jurisdictions.

2.4.3.1.6 Supply Chain Management

SCM is designed to provide supply chain solutions to their internal customers. The offices include:

- Supply Chain Planning and Analytics: Develops and provides supply chain business intelligence and supply chain data governance, enhancing asset availability and service delivery.
- Supply Chain Contract Management: Provides advanced acquisition planning, contract management, and procurement compliance services for all inventory materials/supplies across the Authority, enhancing asset availability and service delivery.
- Supply Chain Warehousing and Logistics: Provides timely and quality warehousing and logistical solutions to ensure that the right parts are in the right place at the right time, enhancing asset availability and service delivery.

2.4.3.1.7 Reliability Engineering and Asset Management

REAM centralizes the Office of Reliability Centered Maintenance Planning (RCMP) and Transit Asset Management Office (TAMO) under a single functional group. The following offices provide subject matter expertise:

- Reliability Centered Maintenance Planning (RCMP), which works to ensure that every asset, fixed or rolling stock, is maintained properly through an effective maintenance program. This office plans and schedules the maintenance of assets, and reports on the reliability and performance of COO equipment.
    - Maintenance Planning and Scheduling (MPLN), which serves as the central office for providing maintenance planning and maintenance scheduling services.
    - Reliability Engineering and Performance Analysis (REPA), which serves as the central office for reporting on reliability performance as well as facilitating RCM analyses.

- TAMO, which serves as the central office for driving asset management initiatives and ensures that Metro remains compliant with our Federally mandated obligations in accordance with the Transit Asset Management (TAM) plan.

2.4.3.2 External Relations

The EVP/EXRL reports to the GM/CEO. The EVP/EXRL participates on the ESC and has been consulted on establishment and implementation of SMS in accordance with this ASP. EXRL is responsible for building and maintaining strong relationships with Metro's stakeholders, partners, and customers to include regional elected officials, businesses, community groups, and Board of Directors.

Key priorities include:

- Work with jurisdictions and Congress to ensure needed operating and capital funding support
- Engage stakeholders in support of Metro's business goals and objectives, as well as coordinate with federal agencies and safety oversight organizations
- Improve customer experience and public confidence in Metro through in-system passenger information, media relations, and marketing channels

2.4.3.3 Strategy, Planning and Program Management

The EVP/SPPM reports to the GM/CEO. The EVP/SPPM participates on the ESC and has been consulted on establishment and implementation of SMS in accordance with this ASP. SPPM drives Metro's strategy and transforms how Metro does business and serves its customers. SPPM builds and oversees Metro's prioritized capital program and is the lead organization responsible for (1) business transformation, (2) planning, (3) sustainability, (4) capital programming and project development, evaluation and accountability, and (5) capital budgeting and funds management. SPPM also provides oversight and reporting, ensuring Metro's capital program advances safety, service reliability and financial stability, and invests federal, jurisdictional and dedicated funding wisely.

2.4.3.4 Internal Compliance

The EVP/INCP reports directly to the GM/CEO. The EVP/INCP participates on the ESC and has responsibility for policy support and collaborating with SAFE on Safety Risk Management and Safety Assurance as well as reinforcing Safety Promotion. INCP is an internal management function. Committed to driving improvement Metro-wide, INCP ensures departments are fulfilling business objectives, addressing corrective actions and complying with federal, state and local requirements and recommendations by deploying planned oversight and compliance activities.

- Management Audits, Risk, and Compliance (MARC) is Metro's Internal Audit function and provides objective internal auditing and advisory services to Metro management that add value and enable change for strong organizational governance, internal controls and effective Enterprise Risk Management (ERM). ERM includes seven areas: Financial, Legal, Strategic, Reputation, Service Delivery, Technology, and Safety in accordance with the Enterprise Risk Management Framework and Internal Control Manual. SAFE and MARC align efforts associated with Enterprise Risk Management for Safety and SMS Safety Risk Management.

- Quality Assurance, Internal Compliance and Oversight (QICO) performs critical safety oversight in accordance with section 4.0 *Safety Assurance* and Quality Management System Plan (QMSP). This includes independent internal reviews and quality assurance assessments of service delivery, engineering and maintenance, capital program management and safety, and functions. QICO coordinates and oversees the closure of corrective/preventive actions that address regulatory safety recommendations and required actions. QICO also manages Metro's Policy Instruction Manual and Metro's Digital Glossary tool, leads the development and implementation of Metro's Quality Management System Plan (QMSP), and conducts the triennial Internal Safety Reviews.

- Special Projects Office (SPEC) leads and manages special and strategic projects at the direction of the General Manager/CEO and other senior management.

2.4.3.5 Budget and Management Services

The EVP/CFO reports to the GM/CEO. The EVP/CFO participates on the ESC and has been consulted on establishment and implementation of SMS in accordance with this ASP. The Department of Financial Operations plans, allocates and manages the Authority's financial resources, policies and priorities to ensure fiscal integrity and alignment with Metro's overarching vision to move the region forward by connecting communities and improving mobility for our customers. Financial Operations facilitates fiscal responsibility and sound investment of funds through active management, rigorous monitoring and timely, transparent reporting. The Office of Management and Budget (OMB) is responsible for the development and formulation of the annual operating budget, long-range financial planning and revenue management. The Office of Accounting (ACCT) manages payroll operations, accounts payable, accounts receivable and financial reporting. The Office of the Treasurer (TRES) is responsible for financial risk management, revenue collection, liquidity management, corporate investments, and debt management as well as fare media sales and distribution. The Office of Real Estate and Parking (LAND) optimizes Metro's real estate and parking portfolios.

2.4.3.6 Internal Business Operations

The EVP/IBOP reports directly to the GM/CEO. The EVP/IBOP participates on the ESC and has been consulted on the establishment and implementation of the SMS in accordance with this ASP. IBOP plays an integral role in supporting Metro's staff and all operating components of the Authority. IBOP is structed into three areas, People, Purchasing, and Enablement. Human Capital (HC) represents the People area, including Occupational Health and Wellness (OHAW) which manages clinical services and medical compliance; Employee & Labor Relations which handles union and non-represented employee matters; Total Rewards, the benefits and compensation arm; Human Capital Information Management (HCIM), and Workforce Planning, including Performance & Learning (talent management) and Talent Acquisition. The Purchasing area is represented by the Procurement and Materials (PRMT) department, Metro's acquisition and sourcing arm that also handles the Disadvantaged and Small Business Programs office. Business Enablement focuses on Information Technology solutions throughout the Authority, implementing IBOP's budget, performance metrics, and strategic planning program. IBOP also includes Fair Practices which promotes Metro as an engaged, diverse, inclusive, and non-discriminatory employer committed to equal opportunities for current and prospective employees.

2.4.3.7 Capital Delivery

The EVP/CAPD reports directly to the GM/CEO. The EVP/CAPD participates on the ESC, champions the Safety Policy, implements Safety Risk Management, cooperates with Safety Assurance, and participates in Safety Promotion as outlined in this ASP. CAPD provides leadership and expertise in management and delivery of capital projects in support of Metro's overall mission to deliver safe, reliable and affordable transportation options throughout the region. CAPD partners with SAFE's Safety Certification and Engineering team through each project's lifecycle to ensure established Safety and Security Certification requirements are complied with in accordance with the Safety and Security Certification Program Plan. CAPD's organization structure consists of five main divisions: Office of Project Development and Implementation Planning (PDIP), Office of Engineering and Architecture (ENGA), Office of Project Implementation and Construction (PICO), Office of Technical Services and Portfolio Management (TSPM), and the Rail Operations Control Center (ROCC).

- PDIP's core function is to generate the solution set for major projects to enable informed decisions, maximize project outcomes, and develop the delivery strategy for each project to maximize value for Metro, considering scope bundling, impact to safety and operations as well as optimal contracting strategies for design, construction and owner's side responsibilities.
- ENGA is responsible for providing Metro-wide engineering and project management services, including the development of design criteria and standards. ENGA works closely with SAFE, maintenance, and operations departments to ensure that the transit system is maintained, and that any engineering issues on existing systems are properly evaluated and remediated.
- PICO's program delivery arm consists of Infrastructure Renewal Program, Major Capital Projects, and Silver Line Extension Program. These divisions assure projects comprising Metro's Capital Improvement Program are completed within scope, schedule and budget.
- TSPM provides a wide range of technical services and strategic portfolio management to the capital program through improvement and standardization of project management and business operations processes.
- ROCC reports to CAPD. The Director of the ROCC also has direct access (dotted-line reporting) to the GM/CEO. The ROCC is responsible for directing all train, equipment, and personnel movement within Metrorail's mainline right-of-way. The ROCC performs critical functions in areas such as emergency response and Roadway Worker Protection (RWP). In addition to rail traffic control (RTC), the other functions within the ROCC include the Rail Operations Information Center (ROIC) and Maintenance Operations Center (MOC). The ROIC is responsible for coordinating station operations, making public announcements, monitoring for delays or abnormal operating conditions, sending digital communications to customers and across Metro departments, and updating the Passenger Information Display System (PIDS). The MOC is the focal point for command, control, administration, and coordination of all maintenance functions performed by ATCM, TRST, TRPM, PLNT, and ELES.

2.4.4 Key Staff

The VP/ACSO of SMS Administration, VP/ACSO of SMS Oversight, and Director of Safety Policy and Promotion have been tasked by the EVP/CSO with establishing Metro's SMS as outlined in this ASP. The SRCs are responsible for leading the implementation of the Safety Risk Management process and supporting implementation of safety policy, safety assurance activity, and safety promotion. SRCs will be assigned by each EVP office at a minimum. The SRCs may delegate actions to subject matter experts when appropriate to support ASP implementation. The SRCs also provide guidance and support to Metro's ERM program. The list of SRCs by job title may be found in Appendix D. The ideal employee to serve in the role of SRC has the following attributes:

- Professional with at least 4+ years of experience in their area of responsibility
- Experience participating in safety activities (such as serving on Safety Committees)
- Experience implementing CAPs, responding to Safety Concerns, and taking action to reduce risk

Upon being designated an SRC, the initial baseline requirements include: One (1) hour course on SMS Awareness (FTA/TSI e-Learning); Two (2) hour course on Safety Assurance (FTA/TSI instructor-led Virtual Live Training) and a 20-hour course on SMS Principles for Transit (FTA/TSI, instructor-led). The (1) hour course on SMS Awareness (FTA/TSI e-Learning) must be completed within 12 months of designation. Instructor-led training is contingent upon class availability by the DOT. As the SMS matures, SAFE will develop additional Metro-specific SMS training over the course of CY 2023 and 2024. Until then, SRCs receive hands-on coaching and mentorship from SAFE's Safety Risk Management Program Specialists.

The primary responsibilities of the SRCs include, but are not limited to:

- Implement Safety Risk Management as described in section 3.0 *Safety Risk Management* of this ASP resulting in the proactive identification, assessment, and mitigation of safety risks
- Coordinate the identification, documentation, and assessment of safety risks
- Perform oversight and monitoring as described in section 4.0 *Safety Assurance* of this ASP to verify risk mitigations are being followed (compliance) and working as intended (effectiveness)
- Ensure that all safety-related corrective action plans are being managed and addressed in coordination with senior leadership
- Ensure that local and departmental safety committees are held, and hazards brought forth are tracked and mitigated
- Monitor and ensure safety incident investigations are thorough and completed per P/I 10.4 *Incident and Accident Investigation*
- Monitor the Safety Risk Submissions for leading indicators of potential hazards, if applicable;
- Assist in maintaining documentation associated with the Agency's SMS
- Attend and report on SMS-related activities at all departmental safety committees and respective STAT meetings (for COO offices)

- Assist Accountable Executive or Chief Safety Officer (SMS Executive) in developing, implementing, and operating the agency's SMS as directed

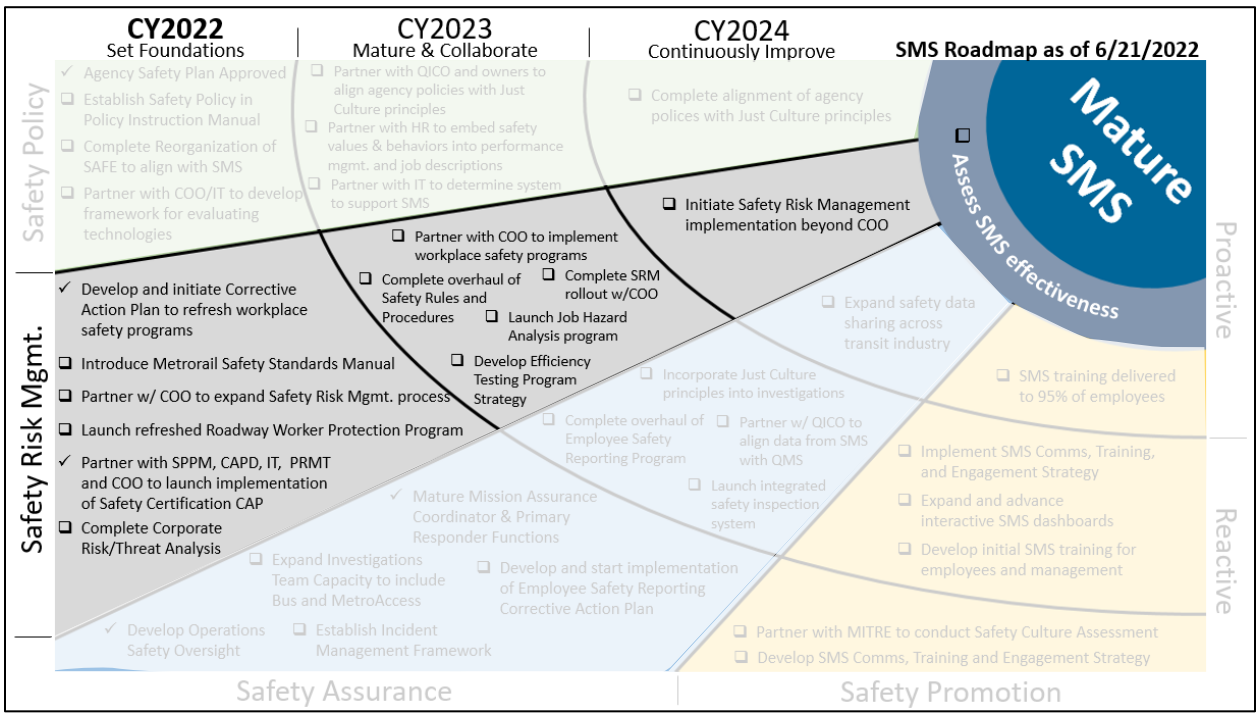
While SAFE and SRCs have specific responsibilities associated with leading SMS implementation, every Metro employee from the executive office to the frontline has the inherent responsibility to perform their work safely and use the SMS processes and tools made available to them.

2.4.4.1 Safety Committees

Metro has a network of safety committees that provide support for developing, implementing, and operating the SMS. These committees are formally sanctioned through 10.8 *Safety Management Policy*, which has been included as Appendix A. Specifically, these safety committees include:

- ESC – The governing body established to oversee the development and implementation of SMS in accordance with this ASP and to manage safety risk at the agency-level within Metro.
- JLMSC – A sub-committee of the ESC composed of represented and non-represented employees that supports the ESC in overseeing the development and implementation of SMS and proactively managing risk in accordance with this ASP.
- Department Safety Committees (DSCs) – The governing body established to manage safety risk at the department-level within Metro in accordance with this ASP.
- Local Safety Committees (LSCs) – The governing body established to manage safety risk at the local level within departments and facilities at Metro in accordance with this ASP.
- SCRC – The governing body that oversees safety and security certification at Metro in accordance with the *Safety and Security Certification Program Plan*.
- RSSC – the governing body that reviews, discusses, verifies, and approves any new rules and procedures proposed, modifications or deviations to rules and procedures, and the rescinding of obsolete rule and procedures in accordance with SOP 4800-03-00 *Rail Safety Standard Committee Operations*.

3.0 Safety Risk Management



The Safety Risk Management component of Metro's SMS has been designed to meet the requirements established by the FTA and WMSC. In accordance with 49 CFR Part 673.25 *Safety Risk Management*, this section of the ASP includes:

- 3.1 – Safety Risk Management Process
- 3.1.1 – Safety Hazard Identification
- 3.1.2 – Safety Risk Assessment
- 3.1.3 – Safety Risk Mitigation
- 3.2 – Ongoing Management of Safety Risk

Additionally, the Safety Risk Management segment of the SMS roadmap includes key programmatic milestones that have been prioritized to advance SMS development and implementation. This section also specifies the progress made and next steps toward achieving these milestones:

- Develop and initiate CAP to refresh workplace safety programs
- Introduce Metro Safety Standards Manual
- Expand Safety Risk Management process
- Launch refreshed RWP program
- Launch implementation of Safety Certification CAP
- Complete Corporate Risk/Threat Analysis

3.1 Safety Risk Management Process

The SMS Roadmap includes the milestone *Partner with COO to Safety Risk Management process*. Since completing the pilot in the ROCC, rollout of SMS Safety Risk Management has expanded. SCM has completed baseline implementation. SAFE has subsequently commenced implementation with RTRA. As Safety Risk Management implementation progresses, the COO divisions have been sequenced as follows with the intent of completing their implementation by the end of CY 2023. As implementation progress continues, additional departments will be added as part of the annual revision of this ASP. These priorities are subject to change based on the incorporation of input from a variety of sources to include safety performance indicators, internal input (such as ESC), and external input (such as the WMSC). Prior to SMS, managing safety risk has always been and will continue to be a component of Metro's overall ERM framework. Those efforts will continue simultaneously with SMS Safety Risk Management implementation, led by the MARC division of INCP and in partnership with SAFE.

Baseline SMS Safety Risk Management Implementation Priority		
Sequence	**Organization**	**Launch Timing**
1	ROCC – Rail Operations Control Center	Complete
2	SCM – Supply Chain Management	Complete
3	RTRA – Rail Transportation	CY 2022
4	FSVT – Facilities, Systems, and Vertical Transportation Maintenance	CY 2022
5	BMNT – Bus Maintenance	CY 2022
6	CMOR – Mechanical	CY 2023
7	BTRA – Bus Transportation	CY 2023
8	ACCS – Access Services	CY 2023
9	RIME – Rail Infrastructure, Maintenance, and Engineering	CY 2023
10	REAM – Reliability Engineering, Asset Management	CY 2023

The following Safety Risk Management process emphasizes the proactive identification, assessment, and mitigation of safety risks. This process is based on the methodology outlined in MIL-STD-882E System Safety Standard Practice and aligns with the FTA's National Public Transportation Safety Plan. Safety Risk Management Program Specialists from SAFE partner with each of the SRCs designated across Metro to assist in their implementation of this process. Completion of baseline Safety Risk Management is evidenced by

1) The establishment of SOPs for implementing SMS that are customized to the department
2) Launch of an SMS Dashboard that formalizes the safety risks identified, corresponding risk mitigations, current status of risk mitigation implementation
3) Safety risk reporting capabilities that flow safety concerns directly to the Safety Risk Coordinator for follow-up

3.1.1 Safety Hazard Identification

The first step in the Safety Risk Management process is to identify hazards (any real or potential condition that can cause injury, illness, or death; damage to or loss of facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment). An initial series of brainstorming sessions led by the SRC and supported by SAFE are scheduled to engage the workforce.

The sessions are planned to include frontline personnel and gather input from local Union representatives. During these sessions, discussions are held on historical safety performance (e.g., *what are the incidents or injuries that have occurred in the past?*), current safety performance (e.g., *is there anything keeping you up at night?*), and anticipated safety performance (e.g., *what do you think the next incident or injury is going to be and why?*). In addition to the feedback collected from the workforce, information is regularly monitored and collected from a variety of sources:

- External Agencies (WMSC/FTA/NTSB)
    - A hazard analysis on these findings is performed and provided to the WMSC in accordance with the WMSC Program Standard
- Employee Safety Reporting Program
    - These reports are investigated in accordance with section 2.2 *Employee Safety Reporting*, P/I 10.8 *Safety Management Policy*, and established MOUs
- Inspections or Audits
    - Corrective Actions resulting from inspections and audits are analyzed in accordance with WMSC Program Standard, section 4.4 *Corrective Actions*, and SOP WMATA-INCP-1.11 *Corrective Action and Preventive Action procedure*
- Investigations
    - Investigations are conducted on safety events in accordance with the WMSC Program Standard and SOP 800-01 *Incident and Accident Investigations of Rail, Bus, and MetroAccess*
- Safety Committees
    - Safety Committees oversee Safety Risk Management in accordance with section 3.1 *Safety Risk Management Process* and departmental SOPs
- Safety Performance Indicators
    - Trends and patterns detected from safety performance indicators are analyzed in accordance with section 4.1 *Safety Performance Monitoring and Measurement* and the Quality Management System Plan (QMSP)
- Data Analysis
    - Data driven risk analysis is performed in accordance with 3.1.2 Safety Risk Assessment and based on the MIL-STD-882E *System Safety Standard Practice*
- Industry Data
    - Metro reports to and collects industry data from NTD to compare safety performance

After the initial brainstorming sessions are completed, the SRC compiles the information gathered and groups into themes based on patterns and commonalities. In partnership with SAFE, the results are interpreted to identify the risks in terms of *who* is exposed to *what* (e.g., *customers use escalators like they were stairs when a malfunction occurs resulting in slips, trips, and falls*). The drafted risks that were identified are then brought to the LSC for review and feedback. When finalized with the LSC, the identified risks are loaded into the hazard management application of the Safety Measurement System. Metro's Safety Measurement System is an internally developed software capability that is used to support implementation of this Safety Risk Management process. Specifically, the Safety Measurement System is used by SAFE, SRCs, departmental management, and safety committees to track and manage identified safety risks, priorities based on risk analysis, and corresponding safety risk mitigations. This information is entered into the Safety Measurement System by SRCs, which is then feeds the SMS Dashboard that is established as part of baseline implementation. A safety risk submission form is also introduced. The safety risk submission form is a simple reporting mechanism that allows employees to submit safety reports directly to their SRC. The safety risk submission form is made available on the organization's internal homepage on MetroWeb. As new information becomes available, the SRCs use the Safety Measurement System to determine whether an existing risk has already been identified or a new safety risk needs to be drafted. New information associated with existing risks will be reviewed to determine if the risk definition needs to be updated or assessment needs to change (as outlined in 3.1.2). New information that drives the identification of a new risk will be drafted by the SRC and brought to the LSC for review when required.

3.1.2 Safety Risk Assessment

The identified risks are subjected to an assessment based on the likelihood and severity formula benchmarked from MIL-STD-882E *System Safety Standard Practice*. Likelihood is measured based on the frequency (or how often risk is expected to occur). A combination of quantitative and qualitative data is used to assess likelihood. Safety Performance Indicators such as injury or incident rates associated with each risk are reviewed along with existing mitigations, employee reporting, feedback from management, results from Quality or Safety Assurance oversight, and findings from the WMSC (as well as other external agencies). The SRC collects these inputs and then holds a session with the LSC to assess the likelihood of each risk based on a discussion and interpretation of relevant data. The likelihood scale has a letter-based value range of A to E. The higher the grade, the more likely the risk is expected to be realized, as reflected in the following table.

Probability	Value	Qualitative Meaning	Quantitative Meaning
Frequent	A	Opportunity for risk to be realized expected to occur often	Probability of occurrence greater than or equal to 10^{-1} (10%)
Probable	B	Opportunity for risk to be realized expected on a recurring basis	Probability of occurrence less than 10^{-1} (10%) but greater than or equal to 10^{-2} (1%)
Occasional	C	Opportunity for risk to be realized expected to occur	Probability of occurrence less than 10^{-2} (1%) but greater than or equal to 10^{-3} (0.1%)
Remote	D	Opportunity for risk to be realized not expected to occur but possible	Probability of occurrence less than 10^{-3} (0.1%) but greater than or equal to 10^{-6} (0.0001%)
Improbable	E	Opportunity for risk to be realized not expected to occur and almost inconceivable	Probability of occurrence less than 10^{-6} (0.0001%)

Severity is measured based on the consequences expected from the risk occurring. A combination of quantitative and qualitative inputs are also used to assess severity. Historical safety performance indicators such as the nature of the injury experienced, extent of property damage, and length of service disruption are reviewed along with existing mitigations, employee reporting, feedback from management, results from Quality or Safety Assurance oversight, and findings from the WMSC (as well as other external agencies). After likelihood is assessed, the LSC assesses the severity of each risk based on a discussion and interpretation of this data. The severity scale has a number-based value range from 1 to 4. The lower the number value assigned, the more severe the consequence is expected to be as reflected in the following table.

Severity	Value	Meaning
Catastrophic	1	Risk realization expected to result in one or more of the following: death, permanent total disability, loss of passenger/crew occupied volume with equipment damage causing separations in structure, infrastructure damage that suspends service through the affected area for greater than 24 hours.
Critical	2	Risk realization expected to result in one or more of the following: permanent partial disability, injuries/illness that results in hospitalization, loss of passenger/crew occupied volume with equipment damage that causes openings but no separations in structure, infrastructure damage that suspends service through the affected area for greater than 2 and up to 24 hours.
Marginal	3	Risk realization expected to result in one or more of the following: injury or illness resulting in one or more lost work day(s), loss of passenger/crew occupied volume with equipment damage that causes no openings in structure, infrastructure damage that suspends service through the affected area for more than 30 minutes and up to 2 hours.
Negligible	4	Risk realization expected to result in one or more of the following: injury or occupational illness that does not result in a lost work day, no loss of passenger/crew occupied volume, equipment or infrastructure damage that does not suspend service nor cause a delay through the affected area for more than a maximum of 30 minutes.

Metro applies discretion to evaluate and assign risk to a given hazard on a case-by-case basis. The assessment of likelihood and severity (and therefore, safety risk) of a given hazard is based on the totality of the circumstances associated with each specific hazard. Upon completing the risk assessment for each risk, the SRC enters the results in the Safety Measurement System to create the current state risk profile. The following risk assessment matrix is embedded with stoplight criteria resulting in the assessment for each risk depicted as high (red), medium (yellow) or low (green), which informs how the safety risks will be prioritized.

Risk Probability	Risk Severity			
	Catastrophic 1	Critical 2	Marginal 3	Negligible 4
Frequent – A	**1A**	**2A**	**3A**	**4A**
Probable – B	**1B**	**2B**	**3B**	**4B**
Occasional – C	**1C**	**2C**	**3C**	**4C**
Remote – D	**1D**	**2D**	**3D**	**4D**
Improbable – E	**1E**	**2E**	**3E**	**4E**

Risk Index		
Red	1A, 2A, 3A, 1B, 2B, 3B, 1C, 2C, 1D	CEO, COO, and CSO approval required to continue activity without level-changing mitigations in place.
Yellow	4A, 4B, 3C, 2D, 3D, 1E, 2E, 3E	VP level approval required to continue activity without level-changing mitigations in place.
Green	4C, 4D, 4E	Risk effectively mitigated or considered so unlikely its acceptable as-is.

3.1.3 Safety Risk Mitigation

After the risk assessment is complete, the risk mitigation step involves determining what actions need to be taken to reduce them to as low as reasonably practicable. The risks assessed as high are prioritized accordingly, followed by medium risks, and then low risks (as required). The SRC performs research to determine whether there are risk mitigations already in place as well as any other mitigations that are already in work (e.g., as part of a CAP in response to an audit finding). The SRC compiles this information for each risk and then holds a session with their LSC. The following criteria (based on the *Hierarchy of Controls*) is applied when developing risk mitigations:

- Elimination: Mitigations designed into the operation that eliminate the potential for exposure to the risk (e.g., *the station is shut down when an escalator malfunctions, eliminating the possibility of customers getting hurt while using them as stairs*)

- Substitution: Mitigations designed into the operation that result in avoiding the potential for risk exposure (e.g., *the station remains open when an escalator malfunctions, but customers are re-directed to actual stairs or elevators to avoid use of the malfunctioning escalator*)

- Engineering Controls: Mitigations designed into the operation that trigger controls when the potential for risk exposure increases (e.g., *an automatic gate is activated when an escalator shuts down, creating a barrier that deters customers from using them as stairs*)

- Administrative Controls: Mitigations designed to change human performance or behaviors in response to the risk (e.g., *every three minutes, the station will announce the escalator is out of service and advise customers to use the actual stairs or elevators*)

- Personal Protective Equipment (PPE): Mitigations designed to protect from exposure to the risk while an activity is performed (e.g., *an attendant will hand out helmets to customers so in case they fall while climbing a shutdown escalator, their head is protected*).

At the LSC, the mitigation criteria are applied with the most feasible and effective mitigations prioritized accordingly. Any risk mitigations that require additional resources (personnel, funding, etc.) are elevated to the Department Safety Committee (DSC). If the magnitude of the need is beyond the ability of the DSC, the SRC will elevate to the Joint Labor and Management Safety Committee (JLMSC). In accordance with 49 USC § 5329(d)(5), the JLMSC has been established to:

- Identify and recommend risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the Metro's safety risk assessment

- Identify mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended

- Identify safety deficiencies for purposes of continuous improvement

The JLMSC will ultimately escalate to the ESC for support with implementing mitigations as needed. The magnitude and complexity of a safety risk drives its escalation from LSC, DSC, JLMSC, and ultimately to the ESC. These risks may require dedicated CAPs to effectively mitigate them, which is determined as part of conducting Safety Assurance activities in accordance with section 4.1 *Safety Performance Monitoring and Measurement*. When required to effectively mitigate a safety risk, the SRC will coordinate with SAFE and QICO to develop a CAP and engage with the WMSC as required by the Program Standard. The SRC ensures that each mitigating action is assigned an owner and estimated completion date. After the risk mitigations have been established, the risk assessment step is performed again as part of a goal setting exercise to forecast how much each risk will be reduced. For example, if 30 customers a month were getting injured on malfunctioning escalators, the risk mitigations being implemented in response may target a reduction to less than five injuries per month. The outcome is a future state risk profile that defines what mitigating the risks as low as reasonably practical means to the organization. As risk mitigations are implemented, the SRC meets with the LSC to assess progress and adjusts risk levels and priorities, accordingly.

3.2 Ongoing Management of Safety Risk

The results of Safety Assurance, QICO internal safety reviews, WMSC audits, employee voluntary reporting, safety performance indicators, changes to the system or operation, and other variables will drive the SRC to re-visit the risks identified, prioritization, and mitigations on a regular basis. To enable the long-term, systematic implementation of the Safety Risk Management process, SRCs will establish a recurring meeting rhythm within their departments that meets no less than monthly. Existing LSCs will be leveraged where available. However, additional dedicated meetings or integration into other existing meetings will occur as deemed necessary. These meetings will be composed of representation from every level of the organization (e.g., individual contributors, supervision, and management) with subject matter experts and additional support from SAFE and other departments included as needs dictate. The SRCs (with support from SAFE Safety Risk Management Program Specialists) are responsible for using the Safety Measurement System to capture the risk identified, perform risk assessments, and track mitigations. Each department will be incorporated into the SMS dashboard by the Safety Data Analytics team to provide employees with access to safety risks, peruse mitigation plans, review how effectiveness is measured, and submit reports. SRCs will develop standard operating procedures that specify how implementation of Safety Risk Management will occur within their departments in alignment with this ASP.

3.2.1 Occupational Safety and Health Risk Management

To achieve the SMS Roadmap Milestone, *Develop and initiate CAP to refresh Workplace Safety Programs*, Metro hired a Director of Occupational Safety and Health to lead the development and implementation of workplace safety programs, including those in 29 CFR Part 1910 *Occupational Safety and Health Standards* and 29 CFR Part 1926, *Safety and Health Regulations for Construction*. The first program launched was the Hearing Conservation Program. An overall strategy has been established that includes staffing the Occupational Safety and Health team while concurrently developing occupational safety and health programs that cover OSHA regulatory requirements and the internal directives that govern work at Metro.

3.2.2 Operational Safety Risk Management

To achieve the SMS Roadmap Milestone, *Introduce Metro Safety Standards Manual*, SAFE has staffed an Operating Practices team that is refreshing MSRPH content in alignment with railroad industry best practices. The objective is to baseline approximately 11 safety standards with procedural material being incorporated into the applicable departments' Standard Operating Procedures (SOPs). Metro's RSSC is the governing body that reviews, discusses, verifies, and approves any new rules and procedures proposed, modifications or deviations to rules and procedures, and the rescinding of obsolete rule and procedures in accordance with SOP 4800-*03-00 Rail Safety Standard Committee Operations*. The initial 11 standards comprise the baseline for the new Metro Safety Standards Manual upon achieving RSSC approval. Each standard has an effective date of July 1, 2023 to accommodate successful implementation (updating SOPs, refreshing training content, communications planning, etc.).

3.2.3 Roadway Worker Protection

To achieve the SMS Roadmap Milestone, *Launch refreshed RWP program*, the development for a new program that benchmarks railroad industry best practices has been completed and the implementation phase has started. New job safety briefing and joint occupancy templates are being implemented. The new RWP Safety Standard has been approved by the RSSC. New procedures for how the ROCC grants protection on the roadway are scheduled for RSSC review. Following approval by the RSSC, updated training will be delivered with implementation to follow.

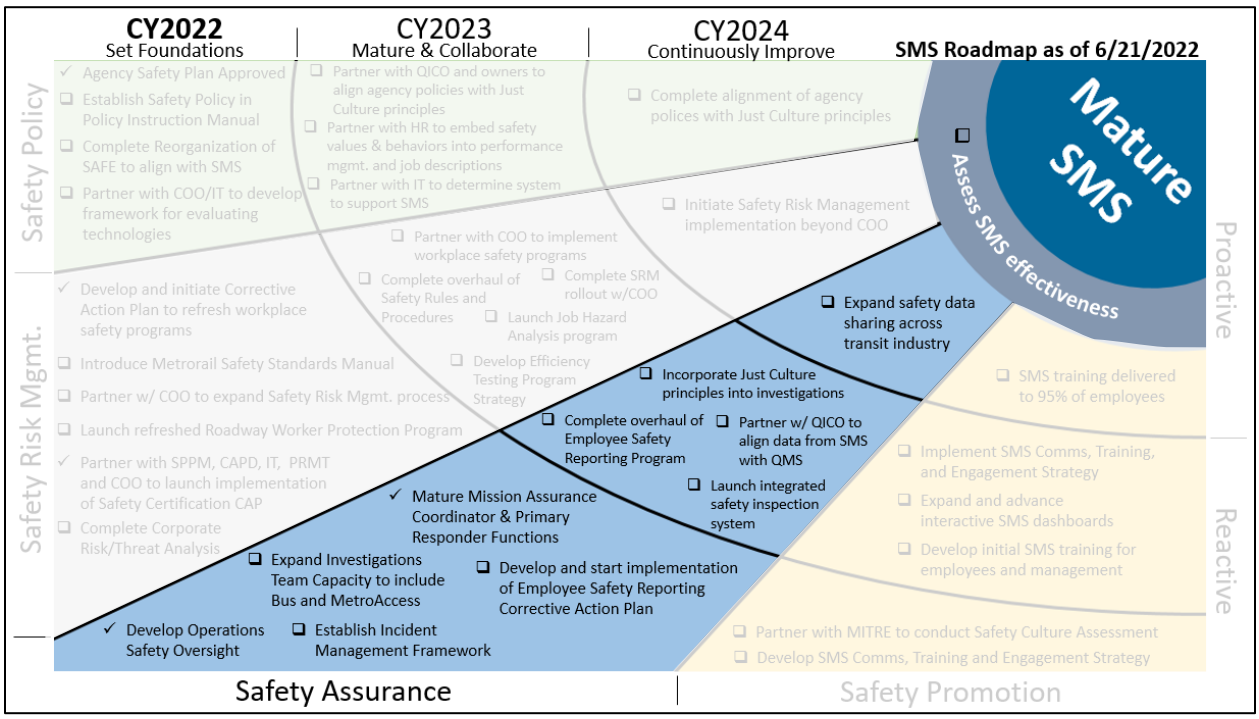
3.2.4 Safety Certification

The Safety and Security Certification team performs their roles and responsibilities in accordance with section 2.4.2.3 *SMS Administration* and the SSCPP. To achieve the SMS Roadmap Milestone, *Partner with SPPM, CAPD, IT, PRMT, and COO to launch implementation of Safety Certification CAP*, SAFE submitted a CAP to the WMSC in response to their August of 2021 finding WMSC-21-C0118 stating that Metro does not consistently follow its safety certification process. SAFE continues to implement corrective actions in accordance with the CAP, which emphasize improved integration of safety and security certification requirements with SPPM, CAPD, and COO. In anticipation of supporting Metro's 10-year capital plan, the Safety Certification and Engineering function will continue to add staff and advance integration with these key partners to ensure evaluations are conducted and certification requirements are embedded at the beginning of each project's lifecycle.

3.2.5 Security Risk / Threat Analysis

To achieve the SMS Roadmap Milestone, *Complete Corporate Risk/Threat Analysis,* a complete system-wide Security-focused Threat and Vulnerability Assessment (TVA) to determine the threats, vulnerabilities, and consequences to overall systems and properties is scheduled to be completed in CY 2022. OEP has initiated discussions with work groups on the threat of power/communications outages, as well as cyberattacks. OEP is participating in a working group to develop the MWCOG National Capital Regional Threat and Hazard Identification and Risk Assessment (THIRA). Metro has applied for new Transit Security Grant Program funding, which will enhance the next three years of planned exercises.

4.0 Safety Assurance



The Safety Assurance component of Metro's SMS has been designed to meet the requirements established by the FTA and WMSC. In accordance with 49 CFR Part 673.27 *Safety Assurance*, this section of the ASP includes:

- 4.1 – Safety Performance Monitoring and Measurement
- 4.2 – Management of Change
- 4.3 – Continuous Improvement
- 4.4 – Corrective Action Plans

Additionally, the Safety Assurance segment of the SMS roadmap includes key programmatic milestones that have been prioritized to advance SMS development and implementation. This section also specifies the progress made and next steps toward achieving these milestones:

- Develop Operations Safety Oversight
- Expand Safety Investigations Team Capacity
- Establish Incident Management Framework
- Develop and Start Implementation of Employee Safety Reporting CAP
- Mature MAC and Primary Responder Functions

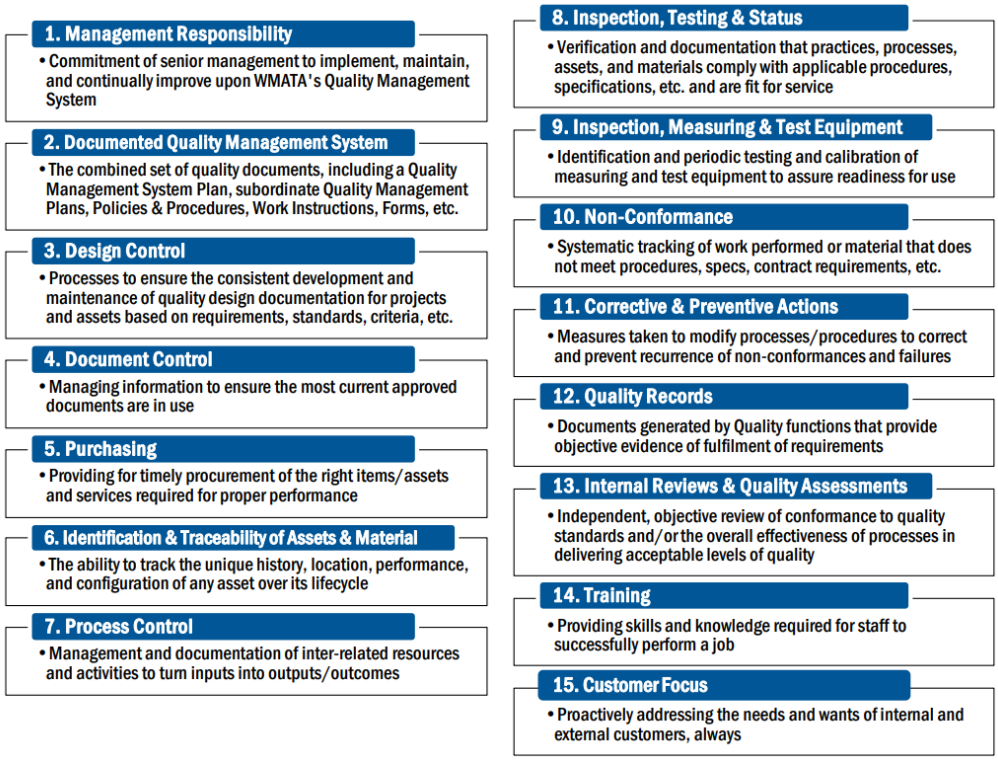
4.1 Safety Performance Monitoring and Measurement

To achieve the SMS Roadmap Milestone, *Develop Operations Safety Oversight*, A Director of Operations Safety Oversight has been hired, and historically siloed bus, rail, and construction safety teams have been integrated. The Operations Safety Oversight function now reports the results of safety oversight inspections daily as part of COO routine meetings, performs targeted data-driven oversight, and continues to standardize their processes, inspections, and other oversight activities. The objective is to assure that risk mitigations are being followed (compliance) and working as intended (effective). Assuring compliance with operations and maintenance procedures is a priority focus. Additionally, Safety Performance Monitoring and Measurement includes conducting safety investigations and safety data analysis on leading and lagging safety performance indicators.

4.1.1 Monitoring Operations and Maintenance Procedures

The Quality Management System Plan (QMSP) is used to monitor compliance with, and sufficiency of, departmental procedures for operations and maintenance. The QMSP is used both internally and externally to guide personnel through Metro's standards that must be met and maintained to ensure compliance with requirements. The responsibilities, procedures, and documents comprising the Quality Management System (QMS) apply to all offices, departments, and projects within the Metro's responsibility. The QMSP is also used externally to introduce the QMS to Metro's customers, stakeholders, contractors, suppliers, and vendors. The QMS is structured to address 15 core standards, as summarized below. These have been developed based on international standards (ISO 9001:2015) as tailored to a transit-specific context.

Core QMS Standards



Quality Management Plans (QMPs) describe a chief level office's procedural approach to align the QMSP requirements with the specifics of that department's deliverables. It describes those activities to ensure quality delivery of services and assets. Its purpose is to describe and define the processes necessary for quality operations. Each applicable office's QMP includes:

- Inspection and testing requirements
- Desired results or end states
- Process steps to capture practices and procedures
- Assignment of responsibility and authority
- References to specifications and standards
- Documented procedures for capturing and approving changes and modifications
- Metrics to capture achievements
- Minimum frequency of review/updates appropriate to ensure the department remains adaptive to changing conditions and priorities.

The QMP and supporting documents (procedures and work instructions) integrate requirements of the QMSP. In this way, each office develops its own best way of contributing to the safety, reliability, and fiscal responsibility of Metro. By complying with quality procedures, Metro employees meet or exceed the requirements of their responsibilities in a consistent, repeatable manner. The QMP with supporting documents describes the practices, assigns the personnel (by name or position), the inspection and testing requirements, and the acceptance criteria. It includes any legal requirements, regulations, industry standards, organizational policies, internal guidelines, and best practices necessary to provide the desired outcome. The QMP:

- Assures conformance to requirements
- Meeting internal and external requirements
- Provides traceability
- Provides a basis for training.

The COO divisions that perform maintenance are required to coordinate with departments across Metro to develop and maintain Maintenance Control Plans that include:

- All inspections, their intervals and requirements, and their documentation, verification and distribution
- The standards (regulatory, industry and internal) for all aspects of maintenance
- Procedures for all aspects of maintenance
- Testing processes and procedures for all maintenance activities

- Standards and requirements for scheduled maintenance, deferred maintenance and determination (destruction/condemnation/disposal)
- Sources of reporting for deficiencies
- Equipment, and small and large tools required to perform the maintenance activities, including IT systems, software and hardware
- Minimum training requirements for personnel engaged in maintenance activities

QICO communicates the status of QMP implementation through monthly status reports provided to departmental leadership. These reports include the following KPIs:

- The number and status of identified QMSP documents for each department
- The number and status of applicable QMS Core Standards
- A summary of the QMSP monthly progress made by each department
- The number and percent of department employees who have completed the QMSP CBT

4.1.2 Monitoring of Operational Safety Risk Mitigations

Metro has multiple internal safety reviews to monitor compliance with its SMS as described in this ASP. These reviews are required under 49 CFR 673.27(b)(2), and include:

1. The triennial internal safety review program. This program, also required under 49 CFR 674.27(a)(4), is owned and implemented by QICO. Each department and functional area is reviewed for compliance with this ASP once every three years. Non-compliances, deficiencies and failures of SMS require corrective action to be developed and implemented by the department or functional area.

   QICO has a procedure manual and fully documents all triennial review activities using Procedure Number: QICO-PRO-P01 *Internal Safety Review Notification and Reporting Procedure*. As stated in this procedure, QICO notifies the WMSC and submits any checklists or procedures that will be used during the review, as per the Program Standard, at least 30 calendar days prior to the start of each review. On or before February 1st of each year, QICO submits an annual Safety Review Report to the WMSC under the Accountable Executive's signature. This report includes the following elements:

   - A summary of all completed ISRs performed during the past year
   - The completed ISR checklists
   - Findings generated as a result of each ISR
   - iCAPAs generated as a result of each ISR

   WMSC will review and approve the report in accordance with the process reflected in their Program Standard.

QICO reports on the results of internal safety reviews to the ESC on a quarterly basis at minimum. Additionally, QICO will report on any significant findings from its internal safety reviews to the ESC and other safety committees as appropriate as well as progress on implementing corrective actions and preventive actions developed in accordance with WMATA-INCP-1.11 *Corrective Action and Preventive Action Procedure* in response to findings from the reviews. The ESC provides oversight and executive management review of this process to ensure consistency and integrity of the internal safety review process.

2. Internal self-assessment. As part of complying with the QMP requirements in section 4.1.1 *Monitoring Operations and Maintenance Procedures*, each department and functional area will annually audit its own SMS compliance to ensure that hazards are identified, assessed, and mitigated through the safety risk management process in compliance with 3.1 *Safety Risk Management Process*. The Safety Risk Management Program Specialists from SAFE work with the SRCs to establish their internal assessment process, such as 700-ROCC-ADM-26-00 *ROCC Internal Assessment Process* was established with the ROCC's SRC. SAFE will perform the oversight required to ensure compliance. The internal controls must be performed annually prior to the start of the revision process to the ASP so that any appropriate necessary modifications to the ASP can be incorporated during the revision process.

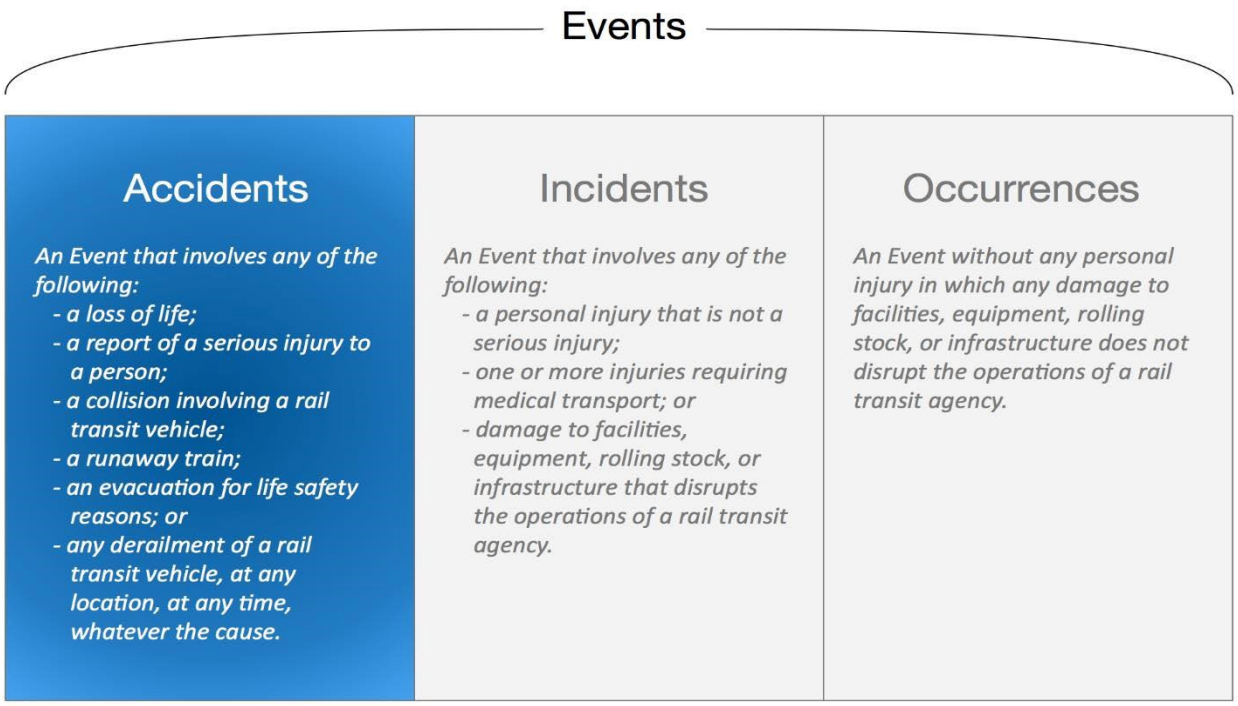
3. The Safety Data Analytics team works with the SRCs to determine how the effectiveness of risk mitigations will be measured. Each risk will have KPIs that inform whether mitigations are working as intended or if additional action needs to be taken. For example, Maximo work order completion might be a measure of effectiveness for mitigating the risk of a fire and smoke condition. The higher the work order completion rate would theoretically drive a lower incident rate. At a minimum, SAFE holds a monthly meeting with SRCs where lessons learned from Safety Risk Management implementation are discussed which include but are not limited to determining KPIs, safety target setting, and interpreting changes in KPI performance.

4. Monitor information reported through the employee safety reporting program described in section 2.2. Each department and functional area is required to monitor employee reporting in its area and report out on activities related to employees who report safety issues directly to their departments for investigation and remediation. This is achieved through the LSCs and captured in the Safety Measurement System used by SRCs. As the SMS matures, dashboards will be utilized to continuously improve how this information is shared and displayed.

   SAFE will conduct monthly assessments of the Safety Hotline and any reporting that it or the OIG receives directly, unless the OIG's information is related to an ongoing investigation of SAFE, or anonymity is compromised where it was specifically requested. The OIG will report separately on any investigation of SAFE under Board direction. Departmental and area monthly monitoring information will be provided to the EVP monthly for each area under the EVP's control through the departmental SMS Dashboards, safety committees, and discussed at the ESC if requested by the Committee. In addition, employee reporting summaries will be made available for access by all departments and areas.

4.1.3 Safety Investigations

Metro is required to report safety events as required by the FTA and WMSC. 49 CFR Part 674 defines three types of safety events: accidents, incidents, and occurrences, and requires the agency to notify the WMSC and the FTA within two hours of any event classified as an accident. The FTA defines the following three categories of events:



As specified in the WMSC Program Standard, Metro must notify both the WMSC and FTA within two hours of any safety event that occurs on its rail system and meets the definition of an accident. Reporting to the WMSC is defined in the Program Standard, and FTA is notified through the USDOT Transportation Operations Center (TOC) by email at TOC-01@dot.gov (preferred) or at (202) 366-1863. Section II of SOP 800-01 *Incident and Accident Investigations of Rail, Bus, and MetroAccess* describes the notification and reporting requirements.

To achieve the SMS Roadmap Milestone, *Establish Incident Management Framework*, a project team has been formed within the OEP to develop the Incident Management Framework. The team is developing the safety standard, operating procedures, and training to ensure Metro manages incidents with urgency, consistency, and flexibility, and that all key players know their roles and responsibilities. The project team will continue to develop the standard, draft operating procedures, and oversee a contract to develop training (computer-based and in-person) that will ensure personnel are trained and prepared to effectively respond to incidents.

Additionally, to achieve the SMS Roadmap Milestone, *Mature MAC and Primary Responder functions*, MAC has been established in the ROCC as a 24/7/365 position. Although the MAC works in the ROCC, the position represents the Chief Safety Officer for all incidents across within Metro (Rail, Bus, MetroAccess, and all facilities). The MAC assists with properly categorizing the severity of an incident and coordinating the appropriate response. The Primary Responder's mission has been established to

provide highly trained and experienced personnel to deploy and assist an Incident Commander. Both positions are critical functions within the Incident Management Framework that is currently under development and planned for implementation in CY 2022.

The SMS approach to investigating incidents emphasizes the identification of causal factors associated with the organization instead of blaming the person most proximal to the event. By implementing root cause methodologies that reveal causal and contributing factors, RCAs can be developed that are designed to effectively mitigate the risk of incident re-occurrence. Internal investigations of all FTA/WMSC-defined events are performed by the department or functional area that experienced the event in accordance with Metro Incident and Accident Investigation Policy, P/I No. 10.4. Safety investigators lead the investigation to ensure an effective root cause analysis is performed to identify causal and contributory factors. SMEs from other departments and the SAFE Investigations Team may support the department in their investigation.

SAFE may investigate hazards or events reported to them outside of departmental or functional area responsibility. To achieve the SMS Milestone, *Expand Safety Investigations Team Capacity to include Bus and MetroAccess*, staffing the investigation team has been a top priority. The safety investigations team has been staffed with talent from a variety of backgrounds to include the pharmaceutical industry, law enforcement, military, and the NTSB. The approach to safety investigations will be expanded to ensure the same rigor is applied across rail, bus, and MetroAccess modes. Attachment B of SOP 800-01 *Incident and Accident Investigations of Rail, Bus, and MetroAccess* provides a sample final investigation. Each safety investigation evaluates the contributing factors and root causes. Corrective actions are developed by the SAFE investigating entity along with the operational department in accordance with SOP WMATA-INCP-1.11 *Corrective Action and Preventive Action Procedure*. These actions are electronically tracked using the Safety Measurement System and monitored through to completion.

SOP 800-1 includes how Metro interacts with the WMSC when conducting its own investigations. Section 2 – *External Event Notifications* and Section 3 – *Incident and Accident Investigation Process* define the notification and investigation process, including timelines, investigation milestones, expected reporting outcomes, and how Metro works with the WMSC. In the event that WMSC leads their own investigation, Metro will provide the WMSC with the resources and information necessary to conduct the investigation in an effective manner on a timeline set by them. WMSC investigators will determine whether CAPs are required to address the root and contributing causes of the safety event. At the conclusion of the investigation, the WMSC provides a draft report to Metro. SAFE will convene a working group of applicable departments to review and comment on the report. Metro will submit comments to the WMSC within 15 days of receipt of the report.

The following training requirements should be met for SAFE personnel and contractors that conduct investigations on behalf of the WMSC. These requirements should be met within one year of designation.

Minimum training requirements include:

- TSI SMS Awareness
- TSI Safety Assurance

- TSI Rail Incident Investigation
- TSI Rail System Safety
- RWP Level 2
- OSHA 10
- Reid Technique for Interviews

4.1.4 Information Monitoring

Metro departments and functional areas are each responsible for working with SAFE to identify, collect and analyze the data required to measure the effectiveness of the actions taken to reduce their safety risks as low as reasonably practicable.

This information will be used for three purposes:

1. To ensure all departments and functional areas establish and achieve performance targets related to their daily operations, such as rules and procedure compliance, sufficiency and accuracy of procedures and documentation, safety events, proper management of change, and completion of safety-critical tasks in a timely manner
2. To ensure that system-wide performance measures are being met through monitoring data associated with them in the appropriate departments
3. To ensure, through wide distribution and sharing of safety data and analyses, that all departments and functional areas are aware of trends, hazards, and safety performance in all other departments

Sources of data include, but are not limited to:

- The employee reporting systems, including self-reporting
- Field reports and observations from supervision and managers
- Preventive maintenance and other scheduled inspections
- Results from drills and exercises, and critical incident debriefings from actual emergency events
- Internal safety audits and internal control reports and activities
- Quality assurance and quality control inspections, audits and other activities
- Customer and public comments, complaints and recommendations
- Employee, passenger and public reports of injury
- Planning and scheduling data collection
- Key performance indicators
- Incident and anomaly reports

- Investigations (hazards, collisions, derailments, security, etc.)
- NTD data collection and reporting
- Safety activities (job briefings, awareness campaigns, departmental meetings)
- Safety and security certification, system modification and procurement activities
- Drug and alcohol compliance programs
- Training and training QA activities
- Rules and procedures compliance activities
- Customer Surveys
- Public meetings
- Safety committee activities and reports; and
- Transit asset management activities

SAFE will partner with PERF to establish a standard operating procedure to:

- The type of data collected
- The frequency with which it is analyzed
- The process of development of annual performance targets and objectives related to SMS compliance, how progress is monitored toward those objectives
- How data on progress is shared system-wide
- How corrective actions for deficiencies or non-compliance in SMS are addressed

All departments are required to observe their operations, including in the field, and also to gather voluntary data and information through the employee safety reporting program to ensure hazards are identified as soon as possible, that data is collected from the activities to analyze trends and prevent re-occurrences and future adverse consequences. EVPs are expected to be familiar with safety-related data and performance information for each ESC meeting so that deficiencies and lapses may be appropriately addressed in terms of risk and resources system-wide.

4.2 Management of Change

Change management is a process for identifying and assessing changes that may introduce new hazards or impact safety performance. Metro determines how a change may impact its safety performance, then evaluates the proposed change through its Safety Risk Management process to analyze the proper mitigations needed to address safety risks introduced by the change.

The ESC provides management oversight of Metro's SMS, including the safety risk management process, internal safety review process, safety and security certification process, and environmental management. The ESC also monitors the implementation of iCAPAs and CAPs associated with safety.

A robust SMS requires that the agency understand that all change introduces risk, and that risk must be managed appropriately through the Safety Risk Management process. Change can introduce new hazards or have an impact on the appropriateness or effectiveness of existing mitigations.

Each department and functional area must, both proactively and through its safety assurance activities, ensure it identifies all change, evaluates it appropriately, and implements mitigations so that risk is managed to acceptable levels during and after the change.

No operations may take place in the changed environment until the change is evaluated to determine the impact on safety; and if there is increased safety risk, the risk is mitigated to an acceptable level.

Through implementation of QMPs, each department establishes controls for design, documentation, purchasing, and process and for capturing and approving changes and modifications. A change represents a departure from these controls that is detected and addressed through safety performance monitoring in accordance with section 4.1 *Safety Performance Monitoring and Measures* and the QMSP.

Sources of change are:

- External:
    - Regulations
    - Audits
    - Environment
    - Passengers
- Internal:
    - Organization
    - Personnel
    - Procedures
    - Equipment
    - Systems

Activities identified to ensure that change is properly identified include the following:

- Monitor service delivery activities (must include field observations)
- Monitor operational and maintenance data

Assess external information

- Assess employee safety reporting program
- Conduct evaluations of the SMS
- Conduct safety audits, studies, reviews and inspections

- Conduct safety surveys
- Conduct safety investigations

4.3 Continuous Improvement

Continuous Improvement is the process by which Metro examines its safety performance to identify safety deficiencies and carries out a plan to address the identified safety deficiencies. It consists of formal activities designed to evaluate the effectiveness of the SMS in accordance with section 4.1.2 *Monitoring of Operational Safety Risk Mitigations* and QICO-PRO-P01 *Internal Safety Review Notification and Reporting Procedure.*

Specifically:

- Proactively identify sub-standard safety performance
- Reveal the causes of sub-standard performance within the SMS
- Determine the implications of sub-standard performance of the SMS in operations and maintenance
- Eliminate or mitigate such causes

Its key elements include management of activities through the Safety Risk Management process; proper change management; compliance activities, including those contained herein; and auditing. The internal controls are primary in this process because they are performed annually and are completed prior to the beginning of the revision process of the ASP. Therefore, performance measures for the transit system, performance targets for the departments, and safety objectives can be keyed to the areas needing improvement. Once deficiencies in the SMS are identified, corrective action must be implemented.

4.4 Corrective Action Plans

By implementing corrective actions, Metro applies lessons learned to drive continuous improvement. Additionally, corrective actions are a form of risk mitigation, which are implemented to reduce risk or mitigate the risk of a re-occurrence in response to a safety event. WMATA-INCP-1.11 *Corrective Action and Preventive Action Procedure* identifies when CAPs are required. Under the direction of the Accountable Executive CAPs are also required to address safety deficiencies identified during safety performance monitoring:

- Areas of non-compliance, deficiencies or defects in the SMS
- Risks that require mitigation to an acceptable level
- Areas of non-compliance with internal requirements, legal requirements, or other requirements
- By direction of the WMSC or FTA

Each finding issued by WMSC requires Metro to develop a suitable CAP. Actions by Metro oversight entities, such as QICO and SAFE, also require internal CAPs (ICAPs) when areas of noncompliance are identified, or when hazards or risks are identified as part of a safety investigation. A report on QICO

iCAPA is provided to the WMSC in accordance with the Program Standard. Based on WMSCs review, additional findings and corresponding CAPs may be required. When SAFE's Investigation Team performs an investigation in response to a Safety Event, Recommended Corrective Actions (RCAs) are developed in coordination with the responsible department that are designed to mitigate the risk of a re-occurrence. The RCAs are included in the Investigation Reports, which are submitted to the WMSC and subject to their review and adoption in accordance with the Program Standard. Proactive risk mitigations are developed as part of implementing the Safety Risk Management process as described in section 3.1, by detecting patterns or trends in data analysis, and through employee safety reporting. The risk mitigations are tracked and managed in the Safety Measurement System. An annual report on risk mitigations will be developed and submitted to the WMSC. At times, an immediate hazard identification or emergency may warrant an expedited corrective action. Executive leadership from the impacted operational departments, along with SAFE, will be briefed by the subject matter experts of the resulting condition or hazard. This working group will develop immediate corrective actions to mitigate the risk. Within 24 hours of the immediate corrective actions, Metro will provide all information related to the urgent risk and the corrective action that is planned or underway in accordance with notification requirements in the WMSC Program Standard. After a thorough review of the risk where the contributing factors and root causes were identified, the appropriate safety committee will develop and implement long term mitigations in partnership with the appropriate SRCs.

Every CAP requires coordination across relevant Metro departments to ensure all parties agree, to ensure successful implementation, and to avoid the introduction of unintended hazards. Section 5 of WMATA-INCP-1.11.01, outlines that EVPs/SVPs have the responsibility to: enforce the use of the internal CAP procedure referenced; assign and approve CAPs; ensure effective corrective actions are taken to mitigate risks and non-conformances; and maintain CAP records. Section 6 of WMATA-INCP-1.11.01 describes the procedure of developing a corrective action. CAPs should also include elements that clearly state the identified risk/hazard and intended outcome.

CAPs include the following elements:

- Date the proposed CAP was generated
- Unique CAP number
- Individualized CAP for every finding/recommendation
- Location/source of the finding
- The specific finding or recommendation
- Risk Rating
- Specific deliverables or actionable items
- Anticipated completion date for each item
- Responsible party and department
- Date of final approval

Within 30 days from the date the WMSC issues a finding or recommendation, Metro will propose a CAP; QICO manages the submittal process, which includes working with the responsible departments on developing a CAP and actionable items that address the finding or recommendation. The WMSC will provide a response to the proposed CAP within 14 days, either approving the CAP or providing comments for adjustments. Metro will address any noted deficiencies within 14 days, followed by a 14-day WMSC response time. This process will continue until the CAP is approved by the WMSC. Metro will take the interim steps required to mitigate the risk and provide other safety improvements while CAPs are under development and review in coordination with QICO. These interim steps will be communicated to the WMSC.

QICO facilitates meetings quarterly with CAP owners to review and receive updates (meetings occur more frequently as deemed necessary). These meetings may be attended by the WMSC; appropriate Metro representatives from QICO and operating departments will be present to discuss CAP implementation and provide any requested verification documentation to the WMSC. Additionally, QICO maintains a publicly available site where all CAP statuses are updated monthly; that site is: https://www.wmata.com/initiatives/transparency/

4.5 Documentation, Definition, and Acronyms

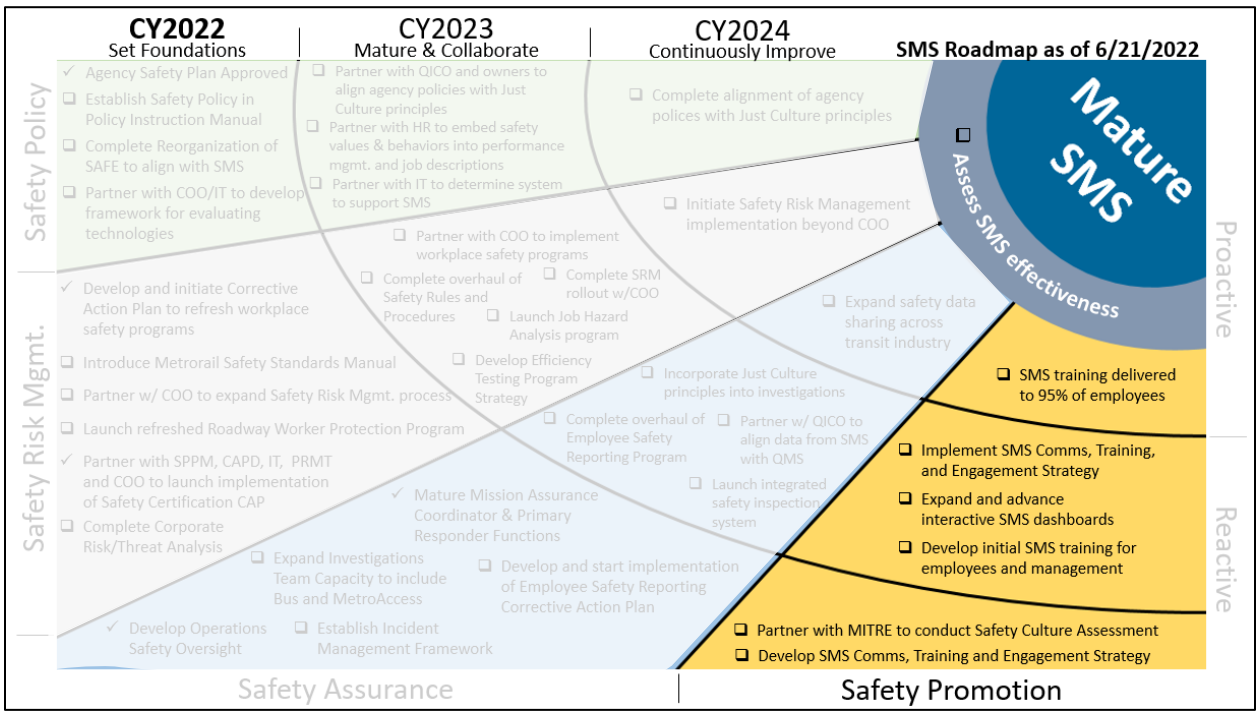
Metro is converting to *MetroDocs* as the agency's primary documentation management system. Before and up to completion of the transition to *MetroDocs* each department determines their own system for meeting records management requirements, which is documented as part of their QMP. The SAFE Department has completed the transition to *MetroDocs*. This ASP and key SMS documentation are maintained in *MetroDocs* and that is the official place to pull the latest information available. The documentation archived in *MetroDocs* will be maintained in the system for no less than three years from the date of their publication (the system tracks timing). SMS documentation includes any documentation related to the development and implementation of SMS across Metro. All the documentation referenced in the ASP is considered SMS documentation and has been provided to the WMSC as part of the ASP annual review and when requested. Applicable definitions and acronyms are maintained as part of this ASP (refer to Appendix B and E) and aligned to Metro's Digital Glossary. In accordance with WMSC's Program Standard:

- Not less frequently than every three months, Metro issues a notification to all Metro officials, employees, consultants, and contractors directing all such personnel to cooperate and respond immediately to requests made by WMSC personnel and to promptly provide any requested information directly to the WMSC.
- Metro includes this notification as part of every new employee on-boarding. For contractors, Metro includes this notification to the contractor in each authorization to begin work.
- In addition, Metro must not retaliate against any official, employee, consultant, or contractor who interacts with the WMSC. Metro may not proscribe or otherwise discourage communication, cooperation, or the sharing of information with the WMSC. This is also conveyed in the notification.
- Metro will also cooperate and respond immediately to provide information to Federal entities (DOT, FTA, NTSB, etc.) upon request.

4.6 Drug and Alcohol Compliance

Metro has developed a Substance Abuse Policy and Employee Assistance Program to ensure a safe environment for the public and Metro employees. The Office of Occupational Health and Wellness (OHAW) has primary responsibility for administering a Substance Abuse Testing Program in accordance with 49 CFR Part 40 - *Procedures for Transportation Workplace Drug and Alcohol Testing Programs* and 49 CFR Part 655 - *Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations*. Metro P/I 7.7.3 *Drug and Alcohol Policy and Testing Program* establishes requirements and responsibilities for administering the required programs. The Employee Assistance Program supports the agency through referring employees to appropriate medical or rehabilitation treatment, and counseling for a variety of issues that may interfere with employees being able to safely perform job responsibilities, tasks and activities. OHAW provides safety assurance for this program and monitors the Drug and Alcohol Testing Program for Metro's safety-sensitive Contractors to ensure Metro's compliance with FTA regulations.

5.0 Safety Promotion



The ultimate goal of Safety Promotion is to shape and reinforce the safety culture required to ensure the long-term, sustained effectiveness of SMS. To achieve the safety culture envisioned, WMATA is aligning polices and procedures with Just Culture principles. Applying these principles means that distinctions are made among honest mistakes, at-risk behaviors, and intentional disregard for safety. The Safety Promotion component of Metro's SMS has been designed to meet the requirements established by the FTA and WMSC. In accordance with 49 CFR Part 673.29 *Safety Promotion* incudes:

- 5.1 – Competencies and Training
- 5.2 – Safety Communication

Additionally, the Safety Promotion segment of the SMS roadmap includes key programmatic milestones that have been prioritized to advance SMS development and implementation. This section also specifies the progress made and next steps toward achieving these milestones:

- Partner with MITRE to conduct Safety Culture Assessment
- Develop SMS Communications, Training, and Engagement Strategy

5.1 Competencies and Training

Instruction in safe methods of operation and safety procedures is included in manuals, handbooks, and other documentation developed for the training and certification of operations and maintenance personnel. Each department has developed training systems that include in-house classroom training, on-the-job training, equipment safety training, and testing. Each department is responsible for establishing safety-training requirements in conjunction with SAFE. SAFE teaches occupational and environmental safety training at the Carmen Turner Facility (CTF) Safety Training Academy or Metro facilities and maintenance shops.

Managers are required to review training records periodically to ensure employees are in compliance with training and certification requirements. Employees have the responsibility to maintain a general awareness of the training associated with their occupation and overall understanding of their completion status. SAFE evaluates departmental safety training programs and provides technical expertise as necessary. Identification of protective devices and emergency equipment is included in the training documentation and instruction.

Additionally, safety posters, bulletins and notices are used as appropriate to enhance safety awareness during all phases of system operations. SAFE's Operations Safety Oversight team monitors training content is monitored and suggestions for improvement are provided to operating offices. Proficiency demonstrations and certifications are required of all operations and maintenance personnel. Safety concerns are incorporated in safety briefings given to personnel prior to their working with equipment or in facilities. A comprehensive listing of safety-related classes may be found in Appendix F.

5.1.1 Employee Safety Training

To achieve the SMS Roadmap Milestone, *Develop SMS Communications, Training, and Engagement Strategy*, a request for proposal is being developed. SAFE will partner with a third-party to develop this strategy, which will include developing and implementing Metro specific SMS training. The strategy will be submitted for the CSO's approval and operationalized to commence implementation in CY 2023.

Metro maintains and continuously improves a comprehensive staff training program for operations and maintenance personnel. Specifically, COO implements this training program in accordance with OPMS-001-11 OPMS *Standard Operating Procedures* and BTRA-BTRN-MAN01-00 *BUS Training Standard Operating Procedures.* Additionally, de-escalation training is administered by MTPD. Metro will expand its implementation of de-escalation training to include both operations and maintenance employees. De-escalation training is designed to reduce verbal confrontations and physical altercations in an effort to prevent assaults.

Safety training is conducted by multiple departments. Each department is responsible for establishing training requirements and assuring that the necessary training is accomplished. The following safety-related courses are provided:

Onboarding – Employee onboarding is conducted for all new Metro employees to inform them of the agency's current departmental programs and procedures, along with SAFE's program requirements for new employees.

All new employees must attend mandatory safety training including: Emergency Response Awareness Training for Non-operating Personnel or Roadway Worker Protection (RWP) training (RWP) for operating personnel; Personal Protective Equipment; Hazard Communication; and Blood Borne Pathogen Training if applicable. In addition, all new employees will receive introductory training on SMS.

First Aid and CPR Training – First Aid, CPR and Automatic External Defibrillator (AED) training is provided to station managers and other employees, as required by class specification. MTPD personnel receive this training at the Police Training Academy and refresher training during mandatory in-service retraining. The National Safety Council or other nationally accredited courses and instruction methodologies are used for First Aid, AED and CPR.

Special Safety Presentations – Special safety training presentations are made at work locations to instruct employees on methods to prevent traffic, passenger, and employee accidents.

Hazardous Materials/Hazard Communication Training – All maintenance and support personnel who are required to use chemicals and hazardous or toxic substances are trained in the safe use of such substances. Employees who move to new positions are provided training in the use of any new chemicals that they may be assigned to use by the supervisor.

Safety Related Operations and Maintenance Training – Categories of safety related work include, but are not limited to, train operators, bus operators, non-revenue (service) vehicle and equipment operators, maintenance of way employees, rail car maintenance employees, elevator and escalator maintenance employees, supervisors, ROCC and Safety personnel, BMNT employees and police officers.

Safety training is embedded in the technical and operations training courses provided to these categories of employees.

- Safety training is conducted on Metrorail and Metrobus procedures and rules. Metro's Standard Operating Procedures and Employee Rulebook are issued to all employees who work on the rail and bus systems.

- All new train operators are given the Train Operator Training Course, which covers rules, procedures, and actual train operation with an instructor. Each new train operator candidate is certified by RSTO with both written and practical testing to validate operational readiness and knowledge of operating and safety rules and procedures.

  Annually, each train operator is given a refresher course on the rules and procedures. All train operators are re-certified every two years with written and practical testing by RTRA, through the Performance Standardization Program. Each train operator who fails the annual examination is given special retraining. The special retraining focuses on the specific areas the train operator failed. After the special retraining is completed, the train operators must successfully pass the annual examination. Failure to pass the exam by the third attempt results in disqualification as reflected in the Performance Standardization Program Manual for Train Operations. The preparation, administration, and maintenance of these examinations and related records are the responsibility of the employee's department/office. Supervisors perform "ride checks" on train operators to assess knowledge of train operations and MSRPH.

- New Student Bus Operator Candidates are responsible for attending and successfully completing WMATA's bus operator training course. The students learn to adhere to all safety and traffic rules, company regulations, policies, and procedures to ensure the well-being of WMATA customers, employees, the public and themselves.
- Every three years, Bus Operators must complete the Bus Operator Recertification course on the rules and procedures. Transit Field Supervisors (TFS) perform "Annual Onboard Assessments" annually for each bus operator to observe and assess their operating skills and knowledge of bus operations and the Bus Service Employee Rulebook.
- New MetroAcess contractor operators are provided with the MetroAccess Operator training course. Annual refresher training is provided, and Metro contractor supervisors perform "ride checks" and observations of operator performance.

5.1.2 Safety Rules and Procedures Training

COO personnel are trained to perform their work in accordance with the safety rules and procedures applicable to their office. Operations Management Services (OPMS) provides job familiarization training to technical skills employees, which includes an overview of basic job safety and applicable MSRPH rules. All new SMNT, TRST and CMNT employees receive new hire familiarization training from OPMS which covers, MSRPH, Safety, Maximo (where applicable), and initial craft training.

All new and existing employees of Metro who will perform work on the Metrorail system right-of-way are required to attend an initial RWP safety training class conducted by TSMT that has been approved by SAFE, prior to beginning work.

For RWP training:

- An RWP exam is given to the employee, to test their knowledge on the facts of RWP.
- A sticker is added to the employee's Metro ID badge upon successfully passing the RWP exam.
- RWP Safety Training is conducted by TSMT (for non-Operations personnel and contractors requiring level 2 or 4 CRWP) and SAFE (for contractors requiring level 1 CRWP).
- Successful completion of recertification training is required annually.

The rules and procedures for each office are established by the appropriate office and coordinated with SAFE. Violations of Metrorail or Metrobus rules, regulations, or procedures may result in disciplinary action (cautions, retraining, reprimand, disqualification, suspensions, or dismissals) in accordance with the rulebooks, policies and the union contract, which are being updated to incorporate Just Culture principles as they become due for revision.

Emergency Preparedness Training – Front-line employees are provided training on the National Incident Management System through FEMA's NIMS-700 online course. Non-operating employees are provided Emergency Response Awareness Training, as part of New Employee Orientation. Existing non-operating personnel are also provided this training by their assigned departments. Operating employees are provided emergency response training, "Warning Signs" developed by the National Transit Institute. This training is provided by the departments to which employees are assigned.

Joint Supervisor Training – Personnel from jurisdictional law enforcement, fire departments and transportation departments are provided training in their role to manage traffic and pedestrian flow in the event of a major Metrorail service delay. This will become part of IMF training scheduled to rollout over the course of CY 2023.

Industrial Hygiene Training and Education – Employees who use or come in contact with chemical, physical or biological hazards receive training in hazard mitigation, industrial hygiene principles and in the care and use of personal protective equipment. SAFE provides training in the proper handling of biologically contaminated materials such as tools, syringes and clothing.

OSH Required Safety Training - The following required OSH training courses are identified as required by employee position descriptions and work assignments:

- Personal Protective Equipment
- Respiratory Protection
- Hearing Conversation
- Hazard Communication
- Permit Required Confined Space
- Powered Industrial Truck
- Electrical Safety
- Fall Protection
- Aerial Lifts
- Cranes
- Powered Work Platforms
- HAZWASTE Management
- HASWASTE Emergency Response
- First Responder
- Fire Extinguisher Training
- Lockout/Tagout
- Environmental Compliance Officer
- Other courses as required

5.1.3 Contractor Safety

Contractors are responsible for ensuring compliance with Metro requirements along with the applicable occupational safety and health statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision in which the work is being performed, and the U. S. Department of Labor OSH standards.

Contractors who perform work on, or interface with the operating system are required by contract to verify that supervisors and assigned employees attend contractor RWP training. Each contract also requires compliance with applicable Federal and state Occupational Safety and Health regulations.

Contractors must submit to project management all required safety training certifications and documentations of course completion that are pertinent to the work to be performed under the contract. SAFE reviews the certifications and documentation to verify that they are valid and that the training meets all current requirements. SAFE also performs regular safety inspections and audits of contractor work sites to review training records and assess contractor safety compliance. Any deficiencies identified by SAFE are brought to the attention of the Metro Contracting Officer Technical Representative (COTR) or their delegate by the Safety Specialists performing the oversight for corrective

action. The Safety Specialists also coordinates their findings with the Metro project management office established by COO or CAPD to oversee the contract.

The contractor must submit a construction safety plan to Metro's COTR or their delegate for review prior to commencement of work. The contractor must within five (5) days after receipt of Notice to Proceed (NTP), submit through Metro's COTR or their delegate to SAFE, a request to schedule and conduct the RWP training for all contract personnel who will be engaged in the performance of contract work on or above the roadway.

SAFE will schedule and conduct contractor RWP training for all contractors requiring level 1 RWP. Contractor training and certification must be renewed annually. The contractor must not perform work at the contract site(s) on or above the Roadway, until all personnel of the contract work force have attended the RWP training and have been furnished evidence of completion. The contractor must also follow all applicable MSRPH rules and procedures while working in the operating rail system. Other training may include, but not be limited to, Confined Space Training. Copies of training documents must be forwarded to SAFE prior to work. Additional Contractor requirements may be found at the Construction Safety and Environmental Manual located on the SAFE website.

5.1.4 Training Recordkeeping

Training records are maintained in an Enterprise Learning Management (ELM) system that is available to supervisors and employees. The course owners (i.e., those giving the course) are responsible for updating and maintaining their training rosters in this database. RWP training records for employee's safety training are maintained and administered by TSMT. TSMT will ensure the results of initial training and recertification RWP testing are recorded in ELM. RWP training records for contractor's safety training are maintained and administered by SAFE.

5.1.5 Compliance with Training Requirements

Training requirements for each position and employee are included in ELM. Audits can be performed using the database to review training records of individual employees to determine compliance with training requirements. Per the QMSP, each department head or their designee's responsibility is to develop and maintain a required training matrix for each position and employee within their department and to verify that the matrix is updated and maintained. Periodic notifications are sent to supervisors if required courses are not completed within the required period.

5.1.6 SMS-specific Training Requirements

Metro has identified the following SMS training for employees:

- Individuals directly responsible for safety must meet the requirements of 49 CFR 672 (Public Transportation Safety Certification Training Program), including a 2-year refresher training interval. These individuals are those whose primary job function includes the development, implementation, and review of the ASP, 49 CFR 672 requirements, or WMSC requirements.

  This group includes the EVP/CSO, VP/ACSOs, Senior Director of Safety Risk Management, Senior Director of Safety Assurance, Director of Safety Policy and Promotion, Director of Safety Certification and Engineering, Director of Operations Safety Oversight, Director of Safety Investigations , the Fire Marshal, and VP of Quality Assurance.

- SRCs are present at the departmental level and are designated to support the Accountable Executive and CSO in implementing this ASP. These individuals are identified in Appendix D by job title. Required training includes: (a) One (1) hour course on SMS Awareness (TSI E Learning); Two (2) hour course on Safety Assurance (FTA/TSI instructor-led Virtual Live Training) and a 20-hour course on SMS Principles for Transit (FTA/TSI, instructor-led) or additional TSI courses.
- SMS training for Managers and Employees will be developed by incorporating lessons learned to improve upon the training piloted with the ROCC. This training will be developed and implemented over the course of CY 2023 (to include contractors and refresher training). The fundamental components of this training will include:
    - Overview of the four components of SMS
    - Required notifications reflected in the WMSC Program Standard
    - Safety Event Reporting and Investigations
    - Close Call and Employee Safety Reporting
    - SMS Dashboard Access and Usage
    - SRCs and Submitting Risks
    - Human Factors Awareness (Drug and Alcohol, Fatigue, etc.)

5.2 Safety Communication

Cultivating Metro's safety culture is critical for the long-term, sustained success of SMS. To achieve the SMS Roadmap Milestone, *Partner with MITRE to conduct Safety Culture Assessment*, MITRE and SAFE are working on the mobilization planning to assess Metro's safety culture, which includes a safety culture survey that will be distributed online and in-person to reach all levels of the organization. Additionally, focus groups will be conducted to provide qualitative insights combined with the quantitative survey results. The survey is scheduled to launch in CY 2022 and the results will be used to establish Metro's safety culture baseline and inform the overall communications, training, and engagement strategy. This iterative approach is expected to be conducted approximately every 24 months to assess progress against MITRE's safety culture maturity model.

Effective safety communication is one of the foundational philosophies of SMS. Its purposes are to:

- Ensure that personnel are aware of the SMS;
- Convey safety-critical information;
- Explain why particular safety actions are taken;
- Explain why safety procedures are introduced or changed; and
- Provide feedback on employee-reported hazards and safety concerns.

The primary safety communication responsibility of senior executive team at Metro under the requirements of 673.23(c) is to actively and personally communicate the Safety Management Policy to employees and contractors. Any changes to the Safety Management Policy must be approved and distributed by the senior executive team to employees. This is primarily implemented through the committee process, but every executive is also required to visibly endorse the Safety Management Policy to employees in the area they control.

The primary safety communication methods include Safety Alerts and Safety Bulletins, print and digital signage and collateral material, videos, and SAFE team communication with stakeholders. Additionally, SAFE partners with the Department of Customer Service, Communications and Marketing (CSCM) to integrate safety messaging into corporate communications and initiatives. SAFE has a recurring section in Metro's employee biweekly newsletter *MetroVoices Wire* and participates in corporate promotional awareness campaigns. Additionally, SAFE partners with COO to share information (such as safety bulletins, safety alerts, operating practices advisories, etc.) to use as part of Toolbox Talks, Safety Briefings, Safety stand-downs, COO sprints, manager/supervisor interactions, and daily meetings.

5.2.1 Hazard and Safety Risk Information

In CY 2023, SAFE's Occupational Safety and Health team will achieve the SMS Roadmap Milestone to *Launch Job Hazard Analysis Program* for the purpose of standardizing the approach to conducting Job Hazard Analyses across Metro. Safety and health potential and realized hazards relevant to employees' work activities will be documented in the Job Hazard Analyses (JHAs). JHAs are completed by the operational departments and their SRCs, with support from the OSH SMEs as needed. All JHAs will be maintained by the owning organizations' SRCs. The SRCs will be responsible for reviewing and updating the JHAs periodically and when new processes and/or hazards are introduced. Employees can also obtain information about hazardous chemicals from the Safety Data Sheets (SDS) that are applicable to their work activities.

5.2.2 Safety Committees

The ESC is the primary group responsible to provide guidance and direction to the agency and to the Accountable Executive on acceptable and unacceptable risk, resource allocation, the status of SMS implementation for each of their areas of control and the promulgation of SMS agency wide.

The ESC is composed of the Accountable Executive and EVPs reporting to the Accountable Executive. Its Chair is the SMS Executive, the Chief Safety Officer. Members may invite departmental and area personnel and SMEs to attend on an as-needed basis, but they do not have voting powers. The ESC may establish subcommittees, such as the JLMSC, SCRC and RSSC, on an as-needed basis. The ESC meets monthly, and the agenda for the ESC will be published in advance. As SMS rollout continues in accordance with this ASP, each EVP or their delegate will partner with SAFE to present a report on the SMS status of their area of control as well as address any deficiencies, resource issues, investigations. or corrective actions ongoing in the area with the other members of the ESC. COO VPs also report progress on safety performance measures, targets, and objectives.

The JLMSC is a sub-committee of the ESC composed of represented and non-represented employees that supports the ESC in overseeing the development and implementation of SMS and proactively managing risk in accordance with this ASP. This includes identifying and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified

through the Metro's safety risk assessment; identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; identifying safety deficiencies for purposes of continuous improvement.

Metro P/I 1.1 *Document Governance and Hierarchy* establishes procedures for development, revision, maintenance, management, and enforcement of rulebooks. The RSSC is responsible for ensuring Metro safety standards are developed, written, communicated, and followed in a consistent manner. Special Orders, Permanent Orders or Temporary Orders are issued as interim measures until permanent changes are made in the MSRPH (which will evolve to the Metro Safety Standards Manual (MSSM) in CY 2023. To ensure the appropriate level of executive management oversight, the MSRPH/MSSM, and Special Orders, Permanent Orders, and Temporary Orders that modify or are intended to permanently establish rules and procedures are issued in accordance with SOP 4800-03-01 *Rail Safety Stand Committee Operations*.

DSCs are management-level safety committees that serve as the intermediary between the respective LSCs and the JLMSC. Metro currently has DSCs for Bus, Rail and Access Services, as well as MTPD, CMNT, PLNT, SMNT and ELES. A SAFE representative attends each DSC and provides support and guidance to the committee in the Safety Risk Management process according to their charter. Unresolved hazards and unacceptable risks from the DSC are forwarded to the JLMSC. DSCs are authorized to re-structure membership as required by their needs.

LSCs are front-line level safety committees established to address local safety issues through the Safety Risk Management process and to assist in developing effective safety programs. There is typically one LSC at every major facility, and all crafts and employee categories must have available representation on an LSC. The LSCs establish and foster a close working relationship with employees, unions, and management regarding safety issues. Employees are trained that they may report any perceived safety issue or hazard to their LSC representative for investigation and resolution. SAFE staff also serve as advisors to the LSCs. Membership is determined by each individual committee charter and will include local supervision, union representation, and non-management employees. Unresolved hazards from the LSC are forwarded to the DSC, and in the absence of a DSC, directly to the JLMSC. The JLMSC will elevate issues to the ESC for action, as deemed necessary.

5.2.3 Hazardous Materials

The maintenance and support personnel who use chemicals and hazardous or toxic substances are trained in the safe use of such substances. Employees who move to new positions are provided training in the use of any new chemicals that they may be assigned to use by the supervisor. SAFE is responsible for developing procedures that ensure compliance with the OSHA Hazard Communication Standard and implementing the safety assurance process for hazardous materials. The Globally Harmonized System (GHS) Safety Data Sheet (SDS) review process is incorporated into OAP 200-05 *Hazard Communication Program*. All chemicals and hazardous materials used by Metro employees or Metro contractors in the Metro operating system shall be evaluated and approved by SAFE prior to use or testing of the product, in accordance with the Hazard Communication Program.

The affected organization must ensure that SAFE has reviewed and has submitted written approval of requested chemicals, prior to procurement, including procurement utilizing blanket orders, purchase cards, construction specifications or equipment specifications. PRMT does not process procurement

requests for chemical products without written approval from SAFE and an approved SDS number on file for that product. PRMT will implement the required quality control procedures to ensure that only chemical and hazardous materials, previously reviewed and approved by SAFE and assigned a unique SDS number, are accepted by the receiving storerooms. Substitutes for chemical products and hazardous materials must be approved by SAFE prior to purchase.

For Metro contracts, chemical products requested by the contractor to be used on property must be submitted to SAFE by the Metro project manager, or designee, for evaluation prior to use. The Metro Project Manager is responsible for providing the SDS Approval/Rejection packages to the contractor for them to follow. The users of any approved product must read the Evaluation/SDS Approval prior to using the product and follow all instructions and precautions. SAFE may conduct site visits where chemicals are being used to ensure that workers are aware of the hazards and that they are using the proper PPE. Access to the approved SDSs is available through the intranet on SAFE page. Departments whose employees use hazardous materials may also have links from their departmental websites to the SDS Website.

5.2.4 Employee Safety Reporting Program Engagement

If employees use their department Safety Risk Submission form, the report goes directly to the SRC who schedules a follow-up with the employee (provided the employee did not choose to remain anonymous). If any other reporting mechanism is used as described in section 2.2 *Employee Safety Reporting Program*, SAFE responds to safety-related reports received and shares outcomes directly with employees and contractors, through employee communications (such as articles in MetroVoices, MetroWire Newsletter, Safety Bulletins, and Safety Alerts), on the SAFE page of the MetroWeb, and through other safety promotional campaigns. Additionally, as Metro's SMS matures, each department's interactive SMS dashboard will provide employees with information on the risks being actively managed, status of corresponding mitigations, metrics that measure effectiveness, and the ability to report concerns or provide feedback. The dashboard launched in CY 2021 and gets updated as departments implement SMS Safety Risk Management as reflected in 3.0 *Safety Risk Management*.

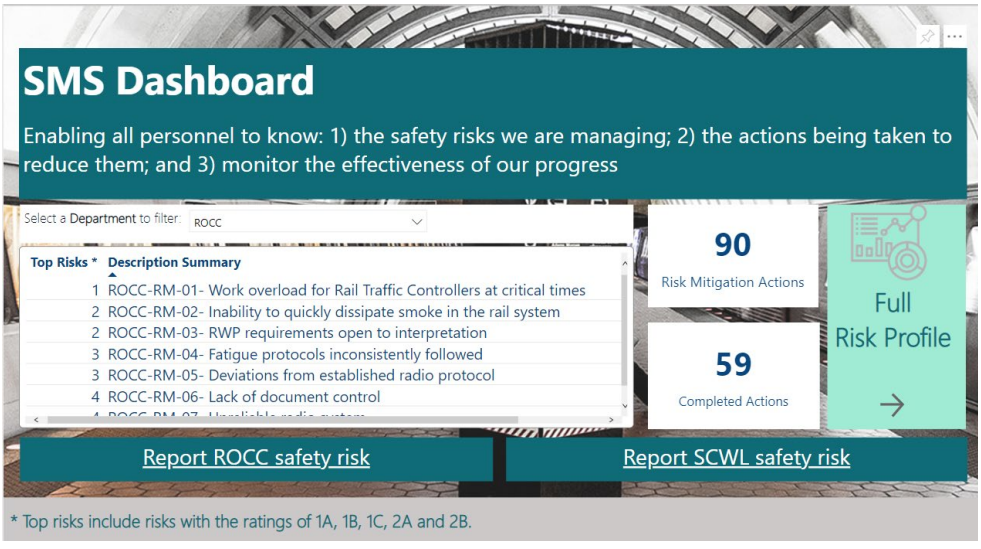


Figure 4. SMS Dashboard

5.2.5 Environmental Management

All executives, directors, managers, supervisors, and employees are responsible for environmental compliance and have a personal and corporate responsibility to incorporate this commitment into daily activities and functions. Environmental management and compliance must be integrated into all appropriate decision-making procedures, programs, tasks, and other activities as a component for addressing environmental concerns and requirements. Industrial, maintenance, support, and construction activities at Metro must comply with applicable federal, state, and local environmental protection laws, standards, and regulations. The EMPM serves as the foundation for Metro's environmental program, and the Environmental Standard Operating Procedures (ESOPs) serve as a daily operations reference for environmental compliance. Specific environmental management policies and procedures are included in the following documents: Metro's EMPM (SAFE/EMAC Website); Metro's ESOPs (SAFE/EMAC Website); Environmental Design Criteria (ENGA Website); and Metro's Construction Safety and Environmental Manual (SAFE Website). Senior managers at each facility are assigned collateral duties as Environmental Compliance Officers (ECOs) and Deputy Environmental Compliance Officers (DCOs). These individuals are trained to perform their compliance duties and are responsible for ensuring compliance with applicable environmental regulations. SAFE is responsible for providing technical advice to the ECOs and DCOs and for monitoring regulatory compliance.

Appendix A – Safety Management Policy

Appendix B – Definitions

Accident Event involves any of the following: A loss of life; a report of a serious injury to a person; a collision of public transportation vehicles; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause.

Accountable Executive means a single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

Administrator means the Federal Transit Administrator or the Administrator's designee.

Chief Safety Officer means an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

Contractor means an entity that performs tasks through a contract or other agreement.

Corrective action plan means a plan developed across the agency that describes the actions the Rail Transit Agency will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a State Safety Oversight Agency or FTA may require a Rail Transit Agency to develop and carry out a corrective action plan.

Equivalent Authority means an entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Public Transportation Agency Safety Plan.

Event means any Accident, Incident, or Occurrence.

FRA means the Federal Railroad Administration, an agency within the United States Department of Transportation.

FTA means the Federal Transit Administration, an operating administration within the United States Department of Transportation.

Hazard (1) means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Incident means an event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency.

Investigation means the process of determining the causal and contributing factors of an accident, incident, or hazard, for the purpose of preventing recurrence and mitigating risk.

National Public Transportation Safety Plan means the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53

Occurrence Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.

Operator of a public transportation system means a provider of public transportation as defined under 49 U.S.C. 5302(14).

Performance Measure means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Performance target means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Transit Administration.

Person means a passenger, employee, contractor, consultant, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.

Public Transportation Agency Safety Plan means the documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and this part.

Public Transportation Safety Certification Training Program means either the certification training program for Federal and State employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight, established through interim provisions in accordance with 49 U.S.C. 5329(c)(2), or the program authorized by 49 U.S.C. 5329(c)(1).

Rail Fixed Guideway Public Transportation System (RFGPTS) means any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. Rail fixed guideway public transportation systems include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.

Rail Transit Agency means any entity that provides services on a rail fixed guideway public transportation system.

Risk means the composite of predicted severity and likelihood of the potential effect of a hazard.

Risk Mitigation means a method or methods to eliminate or reduce the effects of hazards.

Safety Assurance means processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Management Policy means a transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of its employees in regard to safety.

Safety Management System (SMS) means the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

Safety Management System (SMS) Executive means a Chief Safety Officer or an equivalent.

Safety Performance target means a Performance Target related to safety management activities.

Safety Promotion means a combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

Safety Risk Assessment means the formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.

Safety Risk Management (SRM) means a process within a transit agency's Safety Management System for identifying hazards and analyzing, assessing, and mitigating safety risk.

Serious Injury means any injury which:

1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received;
2) Results in a fracture of any bone (except simple fractures of fingers, toes, or noses);
3) Causes severe hemorrhages, nerve, muscle, or tendon damage;
4) Involves any internal organ; or
5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Small public transportation provider means a recipient or subrecipient of Federal financial assistance under 49 U.S.C. 5307 that has one hundred (100) or fewer vehicles in peak revenue service and does not operate a rail fixed guideway public transportation system.

State means a State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

State of good repair means the condition in which a capital asset is able to operate at a full level of performance.

State Safety Oversight Agency (SSOA) means an agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and the regulations set forth in 49 CFR part 674.

Transit agency means an operator of a public transportation system.

Transit Asset Management Plan means the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part 625.

Vehicle means any rolling stock used on a rail fixed guideway public transportation system, including but not limited to passenger and maintenance vehicles as well as buses, and automobiles used for paratransit services

Appendix C – JLMSC ASP Approval Record

Appendix D – Safety Risk Coordinators

Organization	Job Title
CAPD	Director, Capital Improvement Program
ROCC	SMS Program Manager
COO - ACCS	Operations Manager
COO – BTRA	BUSV Operations Strategic Program Manager
COO - BTRA	Department Safety Coordinator
COO - BMNT	Department Safety Coordinator
COO - MTPD	Deputy Chief
COO - RTRA	Manager, Incident Investigations
COO - RIME	Manager, Corrective Action Plan Compliance
COO - CMOR	Assistant General Superintendent
COO - SCM	Department Safety Coordinator
COO - OBPP	Project Manager
COO - REAM	Director, TAMO
COO - FSVT	Directory, Facilities Asset Management
COO - FSVT	ELES Compliance Manager
COO – FSVT	PLNT Manager Incident Investigations
COO - FSVT	Superintendent, Systems Maintenance Shop
COUN	COUN Legal Advisor for Safety
ECAP	External Corrective Action Plan
EXRL	External Relations
IBOP	Strategic Executive Support Administrator
INCP	Vice Present and Chief Risk and Audit Officer
INCP	Vice President, Quality Assurance and Internal Compliance
SAFE	Senior Director Safety Risk Management
SPPM	Director, Capital Planning and Program Development

Note: Assignments are subject to change due to staffing adjustments. Visit the SAFE website for the most recent version and personnel contact information:
https://washingtondcmetro.sharepoint.com/departments/safe/default.aspx

Appendix E – Acronyms

ACCS	Access Services
ACSO	Assistant Chief Safety Officer
ACCT	Office of Accounting
ADA	Title I of the Americans with Disabilities Act
AED	Automatic External Defibrillator
ASP	Agency Safety Plan
ATC	Automatic Train Control
ATCM	Automatic Train Control Maintenance
BMNT	Bus Maintenance
BTRA	Bus Transportation
BUS	Bus Services
BUSV	Department of Bus Services
C3RS	Confidential Close Call Reporting System
CAP	Corrective Action Plan
CAPD	Department of Capital Delivery
CBT	Computer Based Training
CDL	Commercial Driver's License
CENV	Chief Engineer Vehicles
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIPSEA	Confidential Information Protection and Statistical Efficiency Act
CFR	Code of Federal Regulations
CMOR	Chief Mechanical Officer
CMNT	Office of Car Maintenance
COMM	Office of Communications Sections
COO	Chief Operations Officer
COOP	Continuity of Operations Plan
COUN	Counsel Advisor for Safety
CPR	Cardiopulmonary Resuscitation
CRWP	Contractor Roadway Worker Protection
CSCM	Customer Service, Communications and Marketing
CSO	Chief Safety Officer
CSVC	Office of Customer Service
CTF	Carmen Turner Facility
CY	Calendar Year
DC	District of Columbia
DCO	Deputy Environmental Compliance Officer
DOT	Department of Transportation
DSC	Departmental Safety Committees
ECO	Environmental Compliance Officer
ELES	Office of Elevators and Escalators
EMAC	Environmental Management and Compliance
EMPM	Environmental Management Policy and Manual
ENGA	Office of Engineering and Architecture
EOP	Emergency Operations Plan
ERM	Enterprise Risk Management

ESC	Executive Safety Committee
ESOP	Environmental Standard Operating Procedure
EVP	Executive Vice President
EXRL	External Relations
FAMO	Facilities Asset Management Office
FEMA	Federal Emergency Management Agency
FERP	Flood Emergency Response Plan
FOIA	Freedom of Information Act
FSVT	Facilities, Systems, and Vertical Transportation Maintenance
FTA	Federal Transit Administration
GM	General Manager
GOVR	Office of Government Relations
HAZWASTE	Hazardous Waste
HR	Human Resources
HVAC	Heating, ventilation, and Air Conditioning
IBOP	Internal Busines Operations
ICAP	Internal Corrective Action Plan
INCP	Internal Compliance
IPLN	Office of Intermodal Planning
IT	Information Technology
JHA	Job Hazard Analyses
KMSRA	Keeping Metro Safe, Reliable, and Affordable
KPI	Key Performance Indicator
LAND	Office of Real Estate and Parking
LVEM	Office of Low Voltage Electrical Maintenance
LSC	Local Safety Committee
MARC	Management Audits, Risk & Compliance
MD	Maryland
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MOWE	Maintenance of Way Engineering
MPLN	Maintenance Planning and Scheduling
MSRPH	Metro Safety Rules and Procedure Handbook
MTPD	Metro Transit Police Department
MWCOG	Metropolitan Washington Council of Governments
NIMS	National Incident Management System
NTD	National Transit Database
NTP	Notice to Proceed
NTSB	National Transportation Safety Board
OBPP	Office of Budget, Planning, and Performance
OEP	Office of Emergency Preparedness
OEM	Office of Emergency Management
OHAW	Occupational Health and Wellness
OIG	Office of the Inspector General
OJT	On-the-Job Training
OMB	Office of Management and Budget

OPMS	Operations Management Services
OPRI	Office of Professional Responsibility
OSH	Office of Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
OSI	Inspections Office of Security and Infrastructure
P/I	Policy/Instruction
PDIP	Office of Project Development and Implementation Planning
PERF	Office of Transit Performance
PICO	Office of Project Implementation and Construction
PIM	Policy and Instruction Manual
PLNT	Office of Plant Maintenance
PPE	Personal Protective Equipment
PRMT	Procurement and Materials
PTSCTP	Public Transportation Safety Certification Training Program
QA	Quality Assurance
QICO	Quality Assurance, Internal Compliance and Oversight
QMP	Quality Management Plans
QMS	Quality Management System
QMSP	Quality Management System Plan
RACI	Responsible, Accountable, Consulted, and Informed
RAIL	Rail Services
RAIL ADM	Rail Administration
RCA	Recommended Corrective Action
REAM	Reliability Engineering, Asset Management
REPA	Reliability Engineering and Performance Analysis
RCPM	Office of Reliability Centered Maintenance Planning
RIME	Rail Infrastructure, Maintenance, and Engineering
ROCC	Rail Operations Control Center
RSSC	Rail Safety Standards Committee
RTRA	Office of Rail Transportation
RWP	Roadway Worker Protection
SAFE	System Safety, Environmental Mgmt, and Emergency Preparedness
SAMS	Office of Shops and Material Support
SCM	Supply Chain Management
SDS	Safety Data Sheet
SLOM	Silver Line Operations and Maintenance
SME	Subject Matter Expert
SMS	Safety Management System
SMNT	Office of Systems Maintenance
SOP	Standard Operating Procedure
SPEC	Special Projects Office
SPPM	Strategy, Planning and Program Management
SRC	Safety Risk Coordinator
SRM	Safety Risk Management
SSOA	State Safety Oversight Agency
TA	Transit Agency

TAMO	Transit Asset Management Office
TOC	Transportation Operations Center
TrAMS	Transit Award Management System
TRES	Office of the Treasurer
TRPM	Traction Power Maintenance
TRST	Track and Structures
TSI	Transit Safety Institute
TSMT	Office of Technical Skills Maintenance Training
TSPM	Office of Technical Services and Portfolio Management
TSSP	Transit Safety and Security Program
VA	Virginia
VP	Vice President
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Appendix F – Safety-related Training by Group

SAFE (provided or outsourced)

- Asbestos
- Bloodborne Pathogens
- Body Mechanics
- Compressed Gas Safety
- Confined Space Entry
- CPR/AED/First Aid
- Crane, Derrick, and Hoist Safety
- Crawler, Locomotive, and Truck Cranes
- Defensive Driving
- Environmental Compliance, Deputy Compliance Officer
- Electrical Safety Work Practices – Qualified Person
- Electrical Safety Work Practices – Awareness
- Emergency Action Plan
- Employee Alarm Systems
- Fall Protection
- Fire Extinguisher Awareness
- Fire Prevention Plan (Fire Watch)
- Fixed and Portable Ladders
- Hand and Portable Power Tools
- Hazard Communication
- Hazardous Waste Management
- Emergency Response Operations Level
- Hearing Conservation
- Hot Work Permits, Welding and Cutting
- Housekeeping
- Incident and Injury Investigations
- Lockout/Tagout
- Machine Guarding/Conveyors/Metal Working Machinery
- Manlifts/Aerial Lifts
- New Employee Orientation – Safety
- OSHA 10 Hour Construction
- OSHA 10 Hour General Industry
- OSHA 30 Hour for Construction
- OHSA 30 Hour for General Industry
- Personal Protective Equipment
- Pesticide Safety
- Power Presses (Mechanical and Hydraulic)
- Respiratory Protection
- Safety Observations
- Scaffolding
- Slings

- Safety Management Systems – Agency Safety Plan
- Safety Measurement Systems – Data Management
- Storage and Handling of Flammable and Combustible Liquids
- Supervisor Safety Management Program

Rail Operations Quality Training

- Rail Traffic Controller Training
- Interlocking Operations Training
- Rail Operations Supervisor
- Station Manager Training
- Train Operations Training

Bus Operations Training

- Bus and Rail Assault Response
- Bus Maintenance SOP NPB Training
- Bus Operator Candidate CDL Training
- Bus Operator Refresher
- Defensive Driving for BMNT Mechanics
- Defensive Driving for Non-Revenue
- DriveCam
- Line Platform Instructor Training / Refresher
- Mechanical CDL Training
- New Bus Operator Training Course
- Remedial Bus Operator Training

Bus Maintenance Training

- ADA Equipment
- Automatic Transmission
- Backing Safety Solutions
- BAE Disconnect Verification Procedure Training
- Basic Electrical
- Basic Hydraulics
- Basic Mechanical – Orientation
- BMNT Fall Protection
- CNG Engine Familiarization
- CNG Fuels
- Cummins ISL Engine
- Cummins ISL Tune Up
- Driver Safety Training
- Engine Familiarization
- Engine Fault Code
- Entrance & Exit Doors

- Forklift Operation
- HVAC System
- Hybrid Drive
- MAN Disc Brake Axle
- MAN Drum Brake, Front
- MAN Drum Brake, Rear
- Meritor Disc Brake
- Meritor Drum Brake
- Non Passenger Ops for BMNT Employees
- PLC Electrical
- PM Service
- Pneumatics Systems
- Powered Industrial Trucks
- RRC 608
- Service Lane Annual Refresher
- Service Lane Operation
- Skid Steer Operation
- Steam Cleaning
- Steering & Suspension
- Vendor Safety Training
- Wheel & Tire Maintenance

Technical Skills and Maintenance Training – RWP

- Initial Class RWP Level-1
- Initial Class RWP Level-2
- Initial Class RWP Level-4
- RWP Level-1 CBT-Refresh
- RWP Level-2 CBT-Refresh
- RWP Leve-4 CBT-Refresh
- RWP Level-2 REQUAL
- RWP Level-4 REQUAL

Technical Skills and Maintenance Training – ELES

- Advance Level Controllers
- Advance Level Electrical/Electronic Systems)
- Basic Mechanical Theory & Applications / 111a
- Basic Radio Communications
- Customer Service/101C
- Electrical I - AC Fundamentals / 109
- Electrical I - DC Fundamentals / 108
- Elevator Doors
- Elevator-Inspection & Basic Maintenance/219
- Elevator-Other Systems/220 (Includes NAESA Exam)

- Elevator-Principles of Operations / 213
- Escalator-Principles of Operation/208
- Hydraulic Theory & Applications / 110
- Kone Escalators Model Trans-180
- Mathematics Review/104
- Maxton Control Valve and Adjustments
- Overview of Vertical Transportation/200
- Safety, First Aid, CRP AED 102A&B
- Study Skills /101B
- Tools and Material Handing / 103
- TSMT Orientation/101A

Technical Skills and Maintenance Training – COMM

- CCTV/DVR Fundamentals
- Honeywell Vista - 128BPT
- Passenger Information Display System
- Public Address Systems
- RAMEX PERS/INTERCOM
- Swing Gate Training

Technical Skills and Maintenance Training – SSRV

- AC Fundamentals
- Basic Mechanical
- Basic Motor Controls
- Cleaning for Health / Green Cleaning
- DC Fundamentals
- Floor Cleaner Operations
- High Voltage Self Awareness
- HVAC Certification
- Introduction to Custodial Training
- Ladder & Scaffolding Initial Training
- Overview Drainage Pumping Stations
- Powered Industrial Trucks
- Small Engine Repair
- Tunnel Fan PMI

Technical Skills and Maintenance Training – ATC

- 10-day phase 3 Track circuit logics
- 15-day phase 2 Track circuits
- ATC Informational and Training Session
- ATC Journeyman 10-Day Phase 1 Intro to ATC
- ATC OJT

- Baselining Track Circuit and Wayside
- CAB Signal Level ATC Platform and Spillover Measurement
- GM 4000 intro and Switch Adjustments
- M3 switch - Adjust, Maintain, Troubleshoot
- OJT Mentor Training
- Phase 4 Switches - 15 day
- Phase 5 Data Transmission
- Practical test prep

Technical Skills and Maintenance Training – TRST

- Aspen Aerial
- Ballast Regulator Knox Kershaw Operator
- Basic Laborer Training
- Basic Rigging
- Basic Training Vehicle Flag Person
- Bridge Inspection Refresher Training
- Building Condition Assessment Training
- De-icer Flatcars-RCC and Plasser DI-40
- Equipment Flag Person Exam
- Equipment Operator Exam
- Equipment Operator Recertification Training
- Equipment Operator Refresher
- Flag Person Recertification
- Frog Welding
- Gauge Rods
- Geismar Operator Training
- Hi-Rail Bridge Lift (Scissor) Truck (22501)
- Hi-Rail Bridge Lift (Scissor) Truck (22504)
- Hi-Rail Bridge Lift (Scissor) Truck 248/260
- Hi-Rail Bridge Lift Truck-Vendor
- Hi-Rail Gear Utility Truck (21587)
- Initial Equipment Operator Training
- Initial Track Inspection Training
- Initial Track Inspector Training – Vendor
- Maryland DOT Traffic Control
- NORDCO Bundle
- Plasser PMC-50
- Plasser Tamper 4x4 Operator
- PM SV01&02
- Reinstruction for TRST Employees
- Re-Instruction TRST
- Safety Inspection of in-Service Bridges 130055
- Scissor Lift Truck

- Silica Power Air Purified Respirator Training
- Snowplow
- String Lining and Combination Gauge & Level
- TGV Operation and Maintenance
- Thermite Welding – Vendor
- Track Charts
- Track Inspection Recertification Training
- Track Repairer 1
- Tunnel Safety Inspection FHWA-NHI-130110
- Vacuum Truck 21588-589

Technical Skills and Maintenance Training – CMNT

- 7KSystem Introduction and Troubleshooting
- 7K Intro CBT Test-out
- 7K Sub-System Electrical
- 7K Sub-System Mechanical
- Train Movement In to/Out of CMNT Shops
- HVAC EPA 608-609
- HVAC Fundamentals Refresher
- 7K Trucks/Couplers
- QA/OJT
- Preventive Maintenance Electrical 2/3/6/7/K
- Preventive Maintenance Mechanical 2/3/6/7/K
- Rail Car Daily Inspection 2/3/6/7 K

Appendix G – PTASP General Manager Certification

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN CERTIFICATION

I, Randy S. Clarke, General Manager and Chief Executive Officer, have reviewed the Public Transportation Agency Safety Plan (PTASP) and certify that the safety plan is satisfactory and complies with each of the requirements of the PTASP rule (49 CFR Part 673) and that the safety plan effectively will guide WMATA with the management of safety risks of the rail and bus operations of the Authority.

_____ Date: September 2022

Randy S. Clarke
General Manager and
Chief Executive Officer

Washington Metropolitan Area Transit Authority

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202/962-1234

wmata.com

A District of Columbia, Maryland and Virginia Transit Partnership

Appendix H – WMATA Board Resolution Record

Appendix I – PTASP SSOA Certification

WMSC R-2022-XX
October XX, 2022

THE WASHINGTON METRORAIL SAFETY COMMISSION

RESOLUTION APPROVING THE WMATA PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

WHEREAS, 49 CFR part 674.29 requires the Washington Metrorail Safety Commission (WMSC), as the State Safety Oversight Agency (SSOA) overseeing the Washington Metropolitan Area Transit Authority's (WMATA) rail operations, to evaluate whether WMATA's Public Transportation Agency Safety Plan (PTASP) complies with 49 CFR part 673;

WHEREAS, the WMSC must evaluate whether the PTASP complies with the National Public Transportation Safety Plan, as described in 49 U.S.C. 5329 and the WMSC's Program Standard, effective July 11, 2022;

WHEREAS, the WMSC confirms that all requirements set forth in 49 CFR part 674.29 have been met; and,

WHEREAS, the WMSC confirms that WMATA's PTASP meets the requirements of the WMSC Program Standard.

NOW, THEREFORE, BE IT RESOLVED THAT THE WASHINGTON METRORAIL SAFETY COMMISSION:
The WMSC approves WMATA's PTASP, effective December 31, 2022

Adopted by the Washington Metrorail Safety Commission at its public meeting on October XX, 2022