Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2024-0982, **File Type:** Plan **Agenda Number:** 30.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JANUARY 16, 2025

SUBJECT: PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

APPROVE the revised Public Transportation Agency Safety Plan (PTASP), Version 1.4 (Attachment A), which incorporates new Federal Transit Administration (FTA) requirements related to Safety Management System (SMS) implementation and documents Metro's processes and activities in compliance with Federal and State regulations.

ISSUE

Metro's original PTASP, which the Board approved in April 2020, was developed in accordance with Federal and State mandates that require Metro to establish and implement such a plan. In April 2024, the FTA issued revised regulations affecting the PTASP, necessitating revisions to the safety plans established by transit agencies. FTA regulations require the PTASP and revisions to PTASPs to be approved by the Board of Directors.

BACKGROUND

The FTA published the first PTASP Regulation, 49 C.F.R. Part 673, on July 19, 2018. The regulation implements a risk-based SMS approach and required Metro to have a PTASP in place no later than July 20, 2020. Metro complied with this requirement by implementing its PTASP in April 2020. The PTASP is one element of FTA's comprehensive Public Transportation Safety Program. The State Safety Oversight Agency, the California Public Utilities Commission (CPUC), adopted the requirements of FTA's regulation in its General Order 164-E and is charged under the regulations with the review and approval of agency PTASPs. Revisions to the original rules were issued by the FTA in April 2024, which requires transit agencies to update their PTASPs to incorporate the new requirements. Metro's revised PTASP includes the new requirements and will be made effective in January 2025.

DISCUSSION

The PTASP, which is applicable to both bus and rail mode, essentially is a document that describes the various safety programs and processes the agency has in place to manage hazards and safety

risks. The PTASP has been developed to be a top-down, data-driven plan that incorporates the following four critical elements of an SMS-based approach - Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. For each of the four key components, the plan describes or references Metro's processes and procedures that have been in place at the agency that comply with the particular requirements. The plan also includes authorities, accountabilities, and responsibilities of all staff who play a key role in managing safety, as well as performance measures and targets to support the data-driven approach.

Significant changes to the PTASP include updated Safety Performance Measures and Safety Performance Targets (SPT), description of a safety risk reduction program, a revised hazard categorization process, reference to Metro's roadway worker protection program, and a description of CPUC's Risk Based Inspection program.

As required by the regulation, staff provided the revised PTASP to the Metropolitan Planning Organization (MPO) - the Southern California Association of Governments, to coordinate performance measures and targets. Staff also distributed the plan to all internal stakeholders and the Rail Transit Safety Branch Staff of the CPUC during the development of the revised PTASP for review and comments and incorporated their feedback.

In accordance with the PTASP regulations, Metro established a Joint Labor Management Safety Committee (JLMSC) comprising of an equal number of labor (including representatives from all five labor unions) and management representatives. The JLMSC, which meets monthly, identifies and recommends risk-based mitigations or strategies to reduce the likelihood of safety events, such as vehicle and pedestrian collisions, and transit worker assaults. They review and adopt SPTs and approve the PTASP. The JLMSC approved this revised PTASP at the November 21, 2024, meeting.

DETERMINATION OF SAFETY IMPACT

Approval of this recommendation will have a positive impact on the safety of Metro's patrons and employees.

FINANCIAL IMPACT

Since all the programs and processes described in the PTASP are currently in place, there is no financial impact as a result of approving this plan.

EQUITY PLATFORM

Metro's PTASP applies to all bus and rail facilities and Divisions that house Metro employees who provide transportation services and benefits to riders. There are no specific equity benefits or impacts. The PTASP includes programs and processes that benefit all residents of Los Angeles County by addressing safety risks during the design, construction, operation, and maintenance of all our bus routes and rail lines. This PTASP will allow prudent safety enhancements to be implemented for all employees, riders, and residents who use our system or reside in areas where we operate based on data that is collected related to collisions and injuries.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan goals # 1) “Provide high-quality mobility options that enable people to spend less time traveling” and # 5) “Provide responsive, accountable, and trustworthy governance within the Metro organization.” The programs and processes described in the PTASP support the specific actions and initiatives described to advance Goals 1 and 5 in the strategic plan.

ALTERNATIVES CONSIDERED

The Board may elect not to approve the PTASP, Version 1.4. However, this action is not recommended because it would subject Metro to regulatory enforcement action by the FTA, which could include withholding federal funds for non-compliance with the FTA’s Public Transportation Safety Program.

NEXT STEPS

Upon Board approval, staff will implement the PTASP for all affected stakeholders and make the plan effective January 2025. Metro will also certify to the FTA on an annual basis that it has established and implemented its PTASP as required by its regulations. Staff will provide the Board-approved plan to the CPUC, as required by the regulations, for their final written approval.

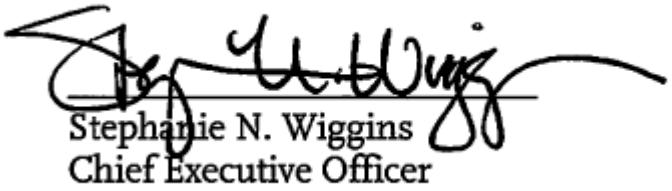
Once the revised PTASP is in effect, staff will audit the plan to verify that the processes and programs are being followed and based on trends, implement strategies for continuous safety improvement. In addition to internal audits, the PTASP will be audited by the FTA and the CPUC at least triennially.

ATTACHMENTS

Attachment A - Public Transportation Agency Safety Plan (PTASP) - Version 1.4

Prepared by: Vijay Khawani, Senior Executive Officer, Project Management Oversight, (213) 922-4035

Reviewed by: Kenneth Hernandez, Interim Chief Transit Safety Officer, (213) 922-2990



Stephanie N. Wiggins
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Version 1.4: Effective January 2025

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

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Subpart A – General

Revision Table

Version History	*Issue Date*	*Revisions*	*Author(s)*
1.0	July 1, 2020	Original Issue	Robert "BJ" Takushi, Vijay Khawani, Ed Boghossian, Raymond Lopez, Steve Flores Abraham Miranda
1.1	July 1, 2021	Revision 1: See Appendix N for Summary of Changes	Robert "BJ" Takushi, Vijay Khawani Abraham Miranda
1.2	January 2023	Revision 2: See Appendix N for Summary of Changes	Vijay Khawani Eddie Boghossian Raymond Lopez Steve Flores
1.3	January 2024	Revision 3: See Appendix N for Summary of Changes	Vijay Khawani
1.4	January 2025	Revision 4: See Appendix N for Summary of Changes	Corporate Safety

METRO PTASP POLICY STATEMENT

The Los Angeles County Metropolitan Transportation Authority (Metro) has adopted as its guiding principle that Safety is a primary value for our customers, employees, and business partners. This means that Safety takes a pre-eminent role in decision making before all other considerations. All levels of management and all employees are accountable for the delivery of this highest level of safety performance, starting with the Chief Executive Officer (CEO). This Public Transportation Agency Safety Plan (PTASP) is the means of integrating safety into all Metro rail and bus system operations. With the methodologies contained in the PTASP, we can achieve an optimal level of safety in our operations and services.

The PTASP integrates the four components of Safety Management Systems (Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion) to lay the foundation of Metro's Safety Culture.

Each department has responsibilities under the PTASP and shall support its implementation. Employees are encouraged to read the PTASP available on MyMetro under Risk, Safety & Asset Management department's webpage. Departments shall also provide the on-going support necessary for achievement of the following PTASP Safety Objectives:

- Establish safety policies, procedures, and requirements that integrate safety into Metro's decision-making and operations.
- Implement Safety Management System (SMS) Principles and utilize the American Public Transportation Association's (APTA) Standards, Recommended Practices, and Guidelines as resources in developing Metro's policies/procedures.
- Assign responsibilities related to safety policies, procedures, and requirements.
- Verify adherence to safety policies, procedures, and requirements.
- Investigate accidents, incidents, fires, and occupational injuries.
- Identify, analyze, evaluate and resolve/mitigate hazards and near misses, in coordination with frontline transit worker representative through the Local Safety Committees and the Joint Labor Management Safety Committee (JLMSC) as described in this Plan.
- Evaluate and verify the operational readiness of new systems.
- Minimize system modifications related to safety during the operational stage by reviewing safety requirements at system design and procurement stages.
- Conduct safety performance monitoring to determine trends and implement corrective actions.
- Evaluate the safety implications of proposed system modifications prior to implementation.

A key to the success of the PTASP is for employees to be aware that they are accountable for meeting the safety requirements of their positions. In other words, everyone is responsible for safety. Beyond this, its success depends on all employees actively identifying potential hazards and taking into consideration the safety of others as well as their own. All employees have an obligation to report hazards, and near-miss occurrences to their department management.

The Corporate Safety Department, led by the Chief Safety Officer (CSO), is responsible for developing, administering, and overseeing a comprehensive PTASP with specific objectives, programs and activities to prevent, control and resolve unsafe conditions/hazards that may occur during the life cycle of the bus and rail systems. The Corporate Safety Department will be involved in projects beginning from the conceptual stage, and through the design, procurement, construction, and operational stages. Metro's safety objectives and safety performance targets/measures included in this PTASP are consistent with the National Public Transportation Safety Plan and fulfill the requirements of 49 Code of Federal Regulations (CFR) Part 673, which is the authority that establishes this PTASP.

We must appreciate the fact that our decisions and actions often affect the safety of our employees, our customers, the public, and business partners. By following the processes described in the PTASP, we will have continued opportunities to improve overall performance and safety. Metro's Board of Directors and Executive Leadership are committed to full implementation of this PTASP through their leadership and assuring the allocation of necessary resources.

Stephanie N. Wiggins

Chief Executive Officer

12/29/2024

Date

Board Approval of PTASP

The LA Metro Board has approved this PTASP. Board approval documentation can be found in Appendix P.

Acronyms/Abbreviations

AIP	Accident Investigation Procedures
APTA	American Public Transportation Association
ATO	Automatic Train Operation
ATP	Automatic Train Protection
ATS	Automatic Train Supervision
BOC	Bus Operations Control
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CMF	Central Maintenance Facility
CPO	Chief People Office
CPUC	California Public Utilities Commission (State Safety Oversight Agency)
CSO	Chief Safety Officer
FBI	Federal Bureau of Investigation
FE	Functional Exercise
FLSC	Fire/Life Safety Committee
FOF	Field Observation and Feedback
FSE	Full Scale Exercise
FTA	Federal Transit Administration
GO	General Order
ISR	Internal Safety Review
JLMSC	Joint Labor Management Safety Committee
LACTC	Los Angeles County Transportation Commission
LADOT	Los Angeles Department of Transportation
LCP	Local Control Panel
LSC	Local Safety Committee
MPO	Metropolitan Planning Organization
MPH	Miles Per Hour

Metro	Los Angeles County Metropolitan Transportation Authority
NTD	National Transit Database
OCI	Operations Central Instruction
OSHA	Occupational Safety and Health Administration
OSSC	Operations Safety Steering Committee
PLE	Purple Line Extension
PPE	Personal Protective Equipment
PTASP	Public Transportation Agency Safety Plan
PM	Preventative Maintenance
ROC	Rail Operations Control
RSAM	Risk, Safety & Asset Management
RTI	Rail Transportation Instruction
RTOS	Rail Transportation Operations Supervisor
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
SCRT	Safety Certification Review Team
SCRTD	Southern California Rapid Transit District
SMRC	System Modification Review Committee
SMS	Safety Management System
SOP	Standard Operating Procedure
SSOA	State Safety Oversight Agency
TAM	Transit Asset Management
TCPSD	Transit Community Public Safety Department
TEPW	Training and Exercise Planning Workshop
TOS	Transportation Operations Supervisor
TSA	Transportation Security Administration
TTX	Tabletop Exercise
U.S.C.	United States Code
VTT	Verification of Transit Training

1.0 INTRODUCTION

This document is the Los Angeles County Metropolitan Transportation Authority's (Metro) Public Transportation Agency Safety Plan (PTASP) for the Bus and Rail systems. This PTASP embodies the elements in 49 CFR Part 673 which focuses on establishing a Safety Management System (SMS). The section numbers referenced throughout this document refer to the requirements of 49 CFR Part 673. The FTA defines SMS as:

> "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 hazards and safety risks."

Metro's PTASP establishes accountability and responsibility at the top levels of the organization, evidenced by the Metro Board's Approval and CEO's commitment to allocate necessary resources to sustain and improve Metro's safety culture. This plan explains each organizational unit's function within the larger Metro System and how accountability for safety is integrated throughout the organization. This PTASP also describes the four components integral to the successful implementation of SMS within the Metro System (outlined below): Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

Metro's Safety Management Policy is divided into four sub-components:

1. Safety Management Policy Statement
2. Safety Accountabilities and Responsibilities
3. Integration with Emergency Management
4. SMS Documentation and Records

Metro's Safety Risk Management component includes:

1. Safety Hazard Identification
2. Safety Risk Assessment
3. Safety Risk Mitigation

Metro's Safety Assurance component includes:

1. Safety Performance Monitoring and Measurement
2. Management of Change
3. Continuous Improvement

Metro's Safety Promotion component includes:

1. Safety Training Program
2. Safety Communication

1.1 METRO BACKGROUND

Assembly Bill 1784 required the Los Angeles County Transportation Commission (LACTC) and the Southern California Rapid Transit District (SCRTD) to submit a plan to the legislature by January 1992, which reorganized the agencies to provide "a unified comprehensive institutional structure which requires maximum accountability to the people."

Assembly Bill 152, signed by Governor Pete Wilson on May 19, 1992 merged the LACTC and SCRTD into the Los Angeles County Metropolitan Transportation Authority (Metro), effective April 1, 1993. All responsibilities and obligations previously assumed by SCRTD and LACTC have been assumed by Metro, which is a public corporation of the State of California. Metro is generally responsible for the planning, design, construction, operation, and maintenance of rail and bus transit in the County of Los Angeles, however, the State Legislature has designated other agencies who are responsible for the design and construction of certain projects, such as the Gold Line Extension Project.

The 13-member Board of Directors that governs Metro is comprised of:

- The five Los Angeles County Supervisors
- The Mayor of Los Angeles
- Three Los Angeles mayor-appointed members
- Four City Council members representing the other 87 cities in Los Angeles County

The Governor of California appoints one non-voting member.

Metro has authority to furnish public transportation services in Los Angeles County and in parts of adjacent counties. Metro is also authorized to administer Proposition A funds for the operation of municipal transit agencies in this area.

1.2 SCOPE AND PURPOSE

The PTASP defines Metro's technical and managerial safety activities. The PTASP applies to all organizational units affecting, or affected by, the Metro bus and rail systems from planning through the operations and maintenance phases. Management's compliance with identified responsibilities in the PTASP ensures that the goals and objectives are achieved.

The PTASP will be used to identify programs and processes to minimize injuries and accidents. It also demonstrates Metro's commitment to safety. In addition, this PTASP complies with the requirements of 49 Code of Federal Regulations Part 673, issued by the FTA.

1.3 ORGANIZATIONAL CHART

Metro Leadership and Executive Management is displayed in Appendix A. Metro Operations organizational chart can be seen in Appendix B.

1.4 SYSTEM DESCRIPTION

Metro's operational system is summarized within Appendix C.

1.5 SAFETY AND SECURITY GOALS

- Provide a level of safety and security in transit services that meets if not exceeds industry standards and practices
- Identify, eliminate, minimize, and/or control safety hazards and their associated risks
- Improve safety by implementing practical and reasonable strategies to reduce the number and rates of accidents, injuries and assaults on transit workers based on data submitted to the NTD
- Comply with the applicable requirements of regulatory agencies
- Maximize the safety of future operations by affecting the design and procurement processes
- Continuously improve the safety culture by striving to incorporate innovative technologies
- Mitigate employee assaults and crime related incidents

Subpart B - Safety Plan

Subpart B of this PTASP incorporates Metro's conformance with 49 CFR 673 including establishing safety performance targets, review and update of this document, emergency management protocols, and coordination with planning stakeholders.

§673.11(a)(3) SAFETY PERFORMANCE MEASURES AND PERFORMANCE TARGETS

Metro's safety performance measures are based on the measures established under the National Public Transportation Safety Plan. A detailed list of these safety performance measures and performance targets are found in Appendix D.

§673.11(a)(4) CONFORMANCE WITH FTA GUIDELINES

This PTASP addresses all requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan. The PTASP will be revised when FTA establishes standards through the public notice and comment process.

§673.11(a)(5) REVIEW AND UPDATE OF PTASP

This PTASP is meant to be a living document that has the flexibility to address additional safety and security issues as needed. The PTASP will be reviewed at least annually, by the RSAM department, to make necessary updates, corrections, and modifications in accordance with the CPUC established rules. RSAM will seek feedback from affected departments and the JLMSC to determine if any changes are needed. Any significant changes (such as Hazard Management Program, Accident Investigation Procedures, regulations that affect the content of this plan), excluding nominal administrative changes, to the body of the plan will be made and presented to the JLMSC and the Metro CEO for adoption by the Board of Directors. Administrative changes (such as Department names, titles, organizational chart, etc) and routine annual KPI targets will be presented only to the JLMSC. RSAM will update the Revision table annually with a new Revision number for the PTASP, regardless if any changes need to be made.

After the PTASP review, the RSAM department will provide the revision to the CPUC. Metro will request CPUC's review and approval in accordance with CPUC established rules if any significant changes are made to the PTASP.

The RSAM department is responsible for preparing, maintaining, and updating the PTASP.

§673.11(a)(6)(i) EMERGENCY MANAGEMENT PROGRAM

Operational Emergencies:

Metro has developed emergency procedures to respond to all-hazard emergencies on the system. These procedures include roles and responsibilities for departmental staff who respond to these emergencies. For emergencies with cascading implications or significant impacts, Metro's Emergency Operations Center (EOC) procedures will be triggered to ensure internal/external coordination and collaboration for response and recovery activities.

RAIL MODE

Currently, all emergency response procedures for rail operations are found in the Metro Rail Book of Operating Rules and SOPs. Examples of these emergencies are Train vs. Person, Collision, Earthquake, Flood, etc. For an extensive list, refer to Metro Rail SOPs. Additionally, in accordance with the CPUC General Order 172 series requirements, Metro has developed Metro Rail SOP #65, which are procedures for contacting employees in the event of a personal or family emergency. For large scaled incidents to the rail system, Metro's EOC Manual would determine activation levels to support emergency response.

BUS MODE

Currently, all emergency response procedures for bus operations are found in the BOC Standard Operating Procedures. Examples of these emergencies are Requests for Police or Emergency Medical Assistance, and Earthquake. For an extensive list, refer to Metro BOC SOPs. Additionally, Metro BOC is responsible for contacting Bus employees in the event of a personal or family emergency. For larger scaled incidents impacting systemwide bus service, Metro's EOC Manual would determine activation levels to support emergency response.

Emergency Preparedness:

RAIL MODE

Rail Operations in coordination with Metro's Emergency Management Department conducts emergency response training, familiarization, and exercises at least once each year on every rail line comprised of either an operation based Full Scale Exercise (FSE), Functional Exercise (FE), or multiple scenario rapid response exercises to prepare for

emergencies. Determinations are driven based on recent real world rail incidents, change of policy/procedures/equipment, or transit industry security/safety concerns.

Emergency Management's annual Training & Exercise Planning Workshop (TEPW) with Rail Operations and Corporate Safety Department determines exercise scenarios, locations, and schedules for each Rail line. Incident scenarios may be selected based on recent/past real-world rail incidents worldwide, changes in policy, procedures and/or technology systems, adoption of new best practices in training, and lastly transit industry security/safety concerns identified by management.

Additionally, within the Multi-Year Training and Exercise Program (MYTEP) a training and exercise calendar is developed for when training and/or exercises will be conducted throughout a calendar year.

Based on the type of exercise, FSE or FE, a discussion-based Tabletop Exercise (TTX) may be conducted where participants can discuss in detail their response procedures that will be used in the FSE or FE. Additionally, all lessons learned are documented as strengths and improvements in after-action reports and a corrective action matrix is developed. These exercises enhance inter-agency communication and coordination with State, Federal, regional, and local first responder agencies, (such as CPUC, FBI, TSA, Fire and Law Enforcement personnel within the 88 Cities, regional hospitals and other external transit/non transit partners) and enable Metro staff to train for potential emergency scenarios.

Prior to each exercise, an Initial Planning Meeting (IPM) is scheduled with the appropriate agencies to plan and discuss the exercise scope, objectives, and specific response activities to test capabilities. Additional meetings may be scheduled depending on the complexity of the exercise. Following the exercise, a post-exercise debriefing is convened with representatives from all participating agencies to review the performance of the exercise, and to identify "lessons learned."

When "lessons learned" affect current procedures or processes, the affected disciplines determine what changes are needed and implement them. If such changes are made, all stakeholders receive a copy of the revised procedure or are notified of procedure changes.

Metro Rail Training Instruction staff collaborates with Emergency Management staff and provides familiarization training to outside agencies on an as-needed basis when requested. Training includes familiarization of the rail cars, station, equipment, tunnel orientations, and tours of the ROC. Periodic reminders of the availability of this emergency preparedness training are presented to fire and law enforcement with jurisdiction emergency response responsibility to the Rail system.

Metro's Emergency Management Department is responsible for coordinating all system wide emergency response planning efforts. Prior to opening new segments of the rail system, training sessions, familiarization, exercises are conducted for all emergency response agencies which have jurisdiction along the route.

BUS MODE

Bus Operations in coordination with Metro's Emergency Management Department conducts emergency response training, familiarization, and exercises throughout the year.
Emergency Management's annual Training & Exercise Planning Workshop (TEPW) with Bus Operations selects 4-6 Divisions to conduct an exercise along with recommended scenarios. Divisions and scenarios may be selected based on recent/past real-world incidents worldwide, changes in policy, procedures and/or technology systems, adoption of new best practices in training, and lastly transit industry security/safety concerns identified by management.

Additionally, within the MYTEP a training and exercise calendar is developed for when training and/or exercises will be conducted throughout a calendar year.

These exercises enhance inter-agency communication and coordination with State, Federal, regional, and local agencies, (such as FBI, TSA, Fire and Law Enforcement personnel within the 88 Cities, and regional hospitals), and enable Metro staff to train for potential emergency scenarios.

Prior to each exercise, an IPM is scheduled with the appropriate agencies to plan and discuss the exercise scope, objectives, and specific response activities. Additional meetings may be scheduled depending on the complexity of the exercise. Following the exercise, a post-exercise debriefing is convened with representatives from all participating agencies to review the performance of the exercise, and to identify lessons learned.

When lessons learned affect current procedures or process, the affected disciplines determine what changes are needed and implement them. If such changes are made, all stakeholders receive a copy of the revised procedure or are notified of procedure changes.

Metro Office of Central Instruction (OCI) staff collaborates with Emergency Management staff and provides familiarization training to outside first responder agencies on an as-needed basis when requested. Training includes familiarization of the bus, access points, shutoffs, cameras and other equipment.

Disaster Recovery:

Metro's Emergency Management Department manages disaster recovery efforts and uses the Disaster Recovery Plan as a guideline in the event of catastrophic scenarios outlined in the plan. Metro's Emergency Management Department oversees major or catastrophic disaster response and recovery efforts.

§673.11(a)(6)(ii) ROADWAY WORKER PROTECTION PROGRAM

Metro has developed and implemented a Roadway Worker Protection program and manual that includes rules and procedures for rail transit personnel performing work on the roadway.

§673.11(a)(6)(iii) RISK BASED INSPECTION PROGRAM

Metro's process for a risk-based inspection program has been developed in consultation with the State Safety Oversight Agency (CPUC).

The California Public Utilities Commission (CPUC) has safety and security regulatory authority over all rail transit and other public transit fixed-guideway systems (referred to as RTAs) under Public Utilities Code Section 99152 and other California statutes.

The CPUC's State Safety Oversight (SSO) program is approved and certified by the Federal Transit Administration (FTA) in accordance with the requirements of federal public transportation safety program law (49 United States Code §5329) and FTA's SSO regulation (49 Code of Federal Regulation Part 674).

The CPUC's Rail Transit Safety Branch (RTSB) implements its SSO program and focuses on verification of compliance with the Public Transportation Agency Safety Plan, System Security Plan, Safety Certification Plans, and other plans and procedures of the RTA to ensure that these plans meet all state and federal rules and regulations, and that RTAs are effectively implementing those plans and the RTA's adopted policies and procedures.

Under state laws and regulations, and federal regulations, CPUC has the authority to make announced (with advanced notice) and unannounced (without advance notice) inspections of all RTA activities, including infrastructure, equipment, records, personnel, and data.

Under the FTA Special Directive 22-25 issued to the CPUC, the CPUC RTSB has developed a Risk-Based Inspection (RBI) program and upon FTA approval will implement that program. Under the Special Directive requirements, the RTA must provide the SSOA with the data the RTA collects when identifying hazards and assessing and mitigating

safety risk**.** The RTSB has set forth the requirements for its RBI program in the RTSB Program Standard Procedures Manual. The Special Directive requires that the CPUC acquire RTA safety, inspection, and maintenance data to analyze and review for any identifiable trends or findings to "inform" the prioritization of CPUC inspections.

As such, RTSB has met and consulted with each RTA regarding the specific records RTSB seeks to routinely acquire from the RTA as part of this process, and the frequency of RTA submittals of that information. RTSB has identified the records sets and the process for transmittal of the data and records to CPUC via a special mailbox (RBIdata@cpuc.ca.gov) and has included a sample of this information in the RTSB Program Standard in Attachment 24. Other data transfer methodologies may also be used such as SharePoint sites or File Transfer Protocol systems.

During those meetings with the RTAs, RTSB discussed with the RTAs:

- Protocols to be employed for both announced and unannounced inspections, including arranging announced inspections and expectation for accessing the RTAs facilities for both announced and unannounced inspections;
- A program to educate RTA employees on the CPUC's authority to access RTA facilities under California Law, and;
- RTAs expectation that employees will cooperate with RTSB inspectors and be responsive to their requests for access, records or other information.

RTSB's RBI requirements and protocols established in accordance with Special Directive 22-25 requirements are contained in the RTSB program Standard in Section 1.5.0 - INSPECTIONS OF RAIL TRANSIT AGENCIES and Section 1.6.0 - RECORD REVIEWS, COLLECTION, AND ANALYSIS.

Metro acknowledges the Commission's authority for developing the RBI processes and procedures in Sections 1.5.0 and 1.6.0 and will incorporate these requirements as the required RBI procedures applicable in California into our Agency Safety Plan.

Metro complies with the authority of the CPUC by assisting in providing timely responses, data requests, records requests, and assistance while on Metro property. Metro works in partnership with the CPUC on Safety Certifications, Event Reports, System Modifications, and construction consultations. Metro recognizes CPUC's authority outlined in the Public Utilities Code and other state laws, and all Metro

employees are required to comply with CPUC representatives performing regulatory oversight in accordance with those laws.

Metro will provide the CPUC the data it requests to help them with identifying hazards and in assessing and mitigating safety risks. Examples of data that will be shared include:

- Hazard records
- Mitigation records
- Event records
- Corrective action plans
- Near-miss records
- Maintenance records
- Inspection records
- Records of failures and defects
- Major maintenance activity schedule and progress records
- Adherence to maintenance schedules

Data will be provided to the CPUC at frequencies as required in their Program Standard. Time frames for providing the data will be dependent on the nature and scope of the request and will be based on an agreed to schedule with the CPUC. However, urgent requests will be processed as expeditiously as possible. All requests for data must be submitted by the CPUC to Metro's DEO of Corporate Safety and their designee. The designee will coordinate with Metro's internal departments to collect the requested data and submit it to CPUC in accordance with the agreed upon schedule.

§673.11(7)(i) RISK REDUCTION PROGRAM FOR MITIGATING SAFETY EVENTS/INJURIES

Metro has initiated several safety programs based on data to continuously advance safety and reduce the risk of injuries through the following :

- Community outreach and education
- Reducing reflection/glare from operator barrier
- Installing four-quadrant gates at BRT and rail crossings
- Evaluating bus collision avoidance technologies
- Repositioning left side mirror to improve visibility and avoid bus/pedestrian collisions
- Installing pedestrian gates and swing gates at rail crossings
- Installing high visibility reflective decals on the rear of buses to mitigate rear end collisions
- Installing in-pavement lights at grade crossings and intersections

- Installing left turn gates in street-running grade crossings
- Installing active bus and train coming signs
- Installing "look both ways" active signs
- Installing active no left/right turning signs
- Installing suicide prevention signs along rail alignments
- Installing photo enforcement systems to deter unsafe motorists' behaviors
- Providing early warning detection system to mitigate transit worker incidents on the right of way
-

§673.11(7)(ii) RISK REDUCTION PROGRAM FOR MITIGATING TRANSIT WORKER ASSAULTS

Bus barrier - Metro is currently enhancing the design of its existing barriers on buses to improve Operator safety. The goal is to have the improved barriers installed on all buses by December 31, 2024.

De-Escalation training - In accordance with FTA Public Transportation Agency Safety Program requirements, De-Escalation training is now required for all employees, public- and non-public facing, upon hire. Refresher training is conducted as needed. The De-Escalation training covers:

- defining and recognizing escalation
- preparing for situations that may escalate
- preventing escalation
- de-escalation techniques
- reporting and next steps if/when an event escalates

New bus procurement full cabin enclosure - Metro is also in the early stages of purchasing new buses to replace some of the older buses in the fleet. The new buses will be equipped with fully enclosed barriers and are anticipated to arrive in the 2026/2027 timeframe.

Bus riding teams and ambassadors - Metro Ambassadors are currently contracted workers, but during the October 2023 Metro Board of Directors meeting, the Board authorized the agency to transition the program in-house, with a check-in report to the Board to review costs to convert Metro Ambassadors into full-time employees. Moving the Metro Ambassadors in-house will streamline the program, facilitate their collaboration with the other layers of Metro's public safety ecosystem (e.g., transit security, law enforcement). Metro has instituted bus riding teams to conduct random line rides focused on lines with the highest incident of bus operator assaults. The intent is to deter riders from entering without the appropriate fare and to ensure riders are following Metro's Customer Code of Conduct.

Interior cameras and monitors – Metro has installed interior cameras and monitors on buses to deter crime and unlawful acts.

Penalty for assaulting bus operators (signage) – Metro has installed signs on its buses to inform passengers that injuring a transit operator is punishable by up to 3 years in prison or up to a $10,000 fine, or both. Penal Code §24.3.3

Metro Transit Police Department – Metro has recently established an in-house Transit Community Public Safety Department (TCPSD), to help keep our employees and riders safe. Metro's Transit Community Public Safety Department will be a new department comprised of sworn police officers specially trained and dedicated to the Metro system, along with transit security officers and crisis intervention specialists/clinicians. Once the TCPSD is established, our agency will have direct oversight over law enforcement operations, deployments, and staffing on our system.

Comprehensive Reporting Protocol for Assaults on all Metro employees – Metro is currentlyputting mechanisms in place to provide for comprehensive reporting of assaults on workers in all ob classifications along with corresponding mitigation strategies.

§673.13 CERTIFICATION OF COMPLIANCE

Metro will certify this PTASP initially and annually thereafter through the FTA's Certification and Assurances process via Metro's Grants Management and Oversight department.

§673.15 COORDINATION WITH PLANNING STAKEHOLDERS

During the development of the original PTASP, Metro coordinated with the CPUC and the local Metropolitan Planning Organization (MPO), which is the Southern California Association of Governments (SCAG). Metro provided a copy of the PTASP to SCAG for their review and comments, including sharing Metro's proposed performance targets to aid in their planning process.

Subpart C - Safety Committees and Cooperation with Frontline Transit worker Representatives

§673.19 SAFETY COMMITTEES

There are various committees that coordinate Metro's SMS activities:

Bus Change and Material Review Committee (BCMRC)
The purpose of this committee is to provide consistency and uniformity to the changes made to, or material used for Metro's Bus Fleet. The committee is responsible for ensuring that changes to the buses or material are safe, economical, practical and comply with Metro's policies and procedures. The proposed modifications are submitted to the Vehicle Technology department. This department then distributes the proposed changes to the BCMRC.

Chemical Standards Committee (CSC) - This committee shares information and provides oversight for the qualification and introduction of new chemical commodities and the disqualification of existing chemicals. The committee jointly reviews all requests to set up chemical products to ensure compliance with Metro's requirements. The committee also reviews the current inventory catalog to confirm the chemical requested does not already exist in the Metro inventory under another name.

Chemical Standards Committee Functions:

- Inventory Control (Review new set-up or request/Committee Chairperson)
- Procurement (Vendor request and purchases of new products)
- Quality Assurance (New product testing/Product Complaints)
- Corporate Safety (Reviews new product SDS for Safety Compliance)
- Maintenance Bus/Rail (Users/Testing)
- General Services Bus, Rail, Gateway (Users/Testing)
- Material Planning (Set order points for Divisions)
- Environmental Compliance (Environmental Impact and Guidelines)

Fire/Life Safety Committee (FLSC) -The FLSC evaluates and resolves fire and life safety issues on Metro. It verifies that system designs, operations, and modifications meet fire and life safety requirements, such as NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems. In this capacity, the FLSC coordinates with other Metro departments and with other fire departments and other emergency response agencies for familiarization with Metro emergency procedures.

The FLSC evaluates issues against FLSC design criteria, verifies compliance with the

criteria, and evaluates variances or deviations from the criteria via a Request for Special Consideration form. The FLSC also facilitates the issuance of the certificate of occupancy for new facilities.

Staff from the Corporate Safety Department chairs the FLSC which is comprised of representatives from the Los Angeles City Fire Department, Operations departments, and the CPUC. Some of the typical functions of the FLSC include:

- Develop Fire/Life Safety Criteria for Metro and monitor compliance with fire/life safety requirements
- Serve as liaison between Metro and fire departments and other emergency response agencies
- Verify that fire departments and other emergency response agencies are familiar with Metro emergency procedures and have access to facility site maps
- Ensure that materials, equipment, and systems are appropriate for use and are maintained in a manner consistent with fire/life safety requirements
- Review municipal and county fire regulations/codes, building codes, building plans, vehicle specifications, fire protection systems, emergency procedures, emergency ventilation systems and procedures, and evacuation plans in order to ensure compliance with fire/life safety requirements
- Provide support for emergency exercises
- Review Metro and other transit agency incidents for lessons learned
- Provide support to Rail Operations as needed

Local Safety Committee (LSC) - The formation of LSCs at the Bus and Rail Operating facilities gives employees and division management a forum for exchanging information related to safety issues, programs, policies, and practices. Each Metro Division has formed a committee, with the head of Operations or Maintenance chairing the effort. The LSC responsibilities include the following:

- Meet monthly to evaluate and resolve any identified safety hazards, near misses, and track action items
- Administer safety programs for department employees, facilities, equipment, and operations
- Review investigation of injuries/incidents and near misses, and make recommendations to mitigate them

Operations Safety Steering Committee (OSSC) - The committee initiates and implements Operations-wide Safety Programs to drive improved performance and to identify and resolve issues that prevent or hinder improved safety success. The Committee is chaired by the head of the Risk, Safety, & Asset Management department and includes Senior Management of the bus and rail Transportation and Maintenance departments. Central to the discussion are key performance indicators and projects and programs to continuously improve safety performance. The committee meets quarterly.

Joint Labor/Management Safety Committee (JLMSC) - The JLMSC is comprised of an equal number of representatives from management and labor unions. The composition and operations of the Committee is described in its Ground Rules and Guidelines . This PTASP has been reviewed and approved by this committee (see appendix O) which meets at least quarterly to review risk-based mitigations or strategies to reduce the likelihood and severity of consequences of accidents, to identify mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and to identify safety deficiencies for purposes of continuous improvement. The committee will also establish and monitor performance targets using a 3-year rolling average of NTD data for measures described in FTA's National Public Transportation Safety Plan. The Committee is alternately chaired by a management or labor representative of the committee for a one year term. The JLMSC is intended to be an ongoing Committee and is dedicated to continuous improvement of all Metro's safety programs, trainings, and other safety measures.

Further, the JLMSC will discuss, evaluate, and address all safety and security issues related to employee, patron, and contractor safety. All relevant safety/security data will be shared with all committee members so that they can engage in discussions to propose safety/security programs, policies, and protocols that are based on this data. If safety performance targets are not met, the JLMSC will assess ongoing risks and propose reasonable mitigations using set aside funding as directed by the Accountable Executive. Historically, the JLMSC has successfully coordinated and communicated with the Board of Directors and the Accountable Executive by having this PTASP approved, and will continue to do so on other matters through Board Reports and Board Boxes as appropriate.

While either party (Management or Labor) may bring a safety/security topic to the JLMSC, the JLMSC is not authorized nor will it engage in any collective bargaining, grievance processing, or meet and confer activities.

Safety Certification Review Team (SCRT) - The SCRT is a multi-disciplinary team that is formed for each Major Rail Capital Project or Line Extension. Its purpose is to review project compliance to the Safety Certification program, in compliance with CPUC General Order 164 Series. The objective of the SCRT is to provide guidance and oversight to the safety certification program so that the project can be opened without any hazard to passengers and employees. Members are selected to serve on an as-needed basis from various operating departments, the Designer, Construction Contractor, or specialty consultants. Typical activities include review of in-progress verification checklists, field inspections, or other document reviews. A representative from the Corporate Safety Department or designee chairs this Team.

System Modification Review Committee (SMRC) - The purpose of this committee is to review and comment on any proposed changes or modifications to the Metro Rail Operating System(s)/Facilities prior to implementation, and to evaluate whether any new hazards are posed by the proposed modifications. The proposed modifications are submitted to the Program Control department. This department then distributes the proposed changes to the SMRC for review and comments via email. Meetings are held only if any comments cannot be resolved via the email process.

Subpart D - Safety Management Systems (SMS)

As outlined in the introduction section of this PTASP, the SMS components lay the foundation of Metro's Safety Culture. The processes identified in the four SMS components below lead Metro to a safer more reliable system allowing for teamwork, vigilance, and accountability to permeate all facets of the organization.

§673.23 SAFETY MANAGEMENT POLICY

Metro's Safety Management Policy is the organization's commitment to safety, which [illegible]ccountabilities, and responsibilities of our employees regarding safety.

§673.23(a) WRITTEN STATEMENT OF POLICY

With respect to the organizational accountabilities and responsibilities, please refer to Metro's Safety Management Policy Statement at the beginning of this document.

§673.23(b) PROCESS FOR REPORTING UNSAFE CONDITIONS/NEAR -MISS INCIDENTS

Metro has established a process for employees to report hazards, unsafe conditions and near-miss occurrences to management as described in §673.25 *Safety Risk Management* of this document. Training on the SAFE-7 system can be accessed through the following link: SAFE-7

Metro's hazard reporting process (SAFE-7) affords employees protection from reprisal* by providing an opportunity to submit hazards/near-miss occurrences transparently or anonymously. Furthermore, as mentioned in Metro's Safety management policy, "All employees have an obligation to report hazards, and near-miss occurrences to their department management".

*Near-Miss occurrences that are captured through Metro's reporting systems, such as SCADA, SMART DRIVE, and Supervisor Observation are not subject to protection from reprisal, if they are deemed to be egregious or violate a major rule as defined by the collective bargaining agreement.

§673.23(c) SAFETY MANAGEMENT POLICY COMMUNICATION

Metro's Safety Policy will be distributed to Metro personnel using various methods, such as, email and/or sign-for documentation. This policy will be posted at all divisions, and will be incorporated into the New Hire Orientation process during the On-Boarding Presentation.

§673.23(d) AUTHORITIES, ACCOUNTABILITITES, AND RESPONSIBILITIES

The central approach used in achieving PTASP goals and objectives involves having all Metro personnel being responsible for safety and taking into consideration the safety implications of their decisions. It uses a proactive approach that stresses looking at systems, and proposed modifications to these systems from a safety perspective before losses occur. The PTASP also requires that employees look at how their actions may affect the safety of other interrelated systems.

All Metro personnel have general safety-related tasks under the PTASP. These include the following:

The Chief Executive Officer, who is the Accountable Executive, has the following Authorities, Accountabilities, and Responsibilities under this plan:

- Control and Direction over human and capital resources needed to develop and maintain both the PTASP, in accordance with 49 USC 5329 (d), and the TAM Plan in accordance with 49 U.S.C. 5326
- Designate a CSO in accordance with 49 CFR 673.23(d)(2)
- Ensure that Metro's SMS is effectively implemented throughout Metro's
- public transportation system
- Ensuring action is taken to address substandard performance in Metro's SMS
- Metro's Safety Performance
- Ultimate responsibility for carrying out Metro's PTASP
- Carry out Metro's TAM Plan
- Establishment and implementation of the PTASP

The CSO reports directly to the CEO. The CSO has the following Authorities, Accountabilities and Responsibilities under this plan:

- Day-to-day Implementation and Operation of Metro's SMS
- Ensure action is taken to address substandard performance in Metro's SMS
- Advise Accountable Executive on SMS progress/status
- Ensure Metro policies are consistent with PTASP Goals and Objectives

The CSO does not have any responsibilities for Operations and Maintenance functions at Metro.

Metro Leadership and Executive Management* has the following Authorities, Accountabilities and Responsibilities under this plan:

- Implementation and Operation of the Metro's SMS as it applies to their respective business unit
- Allocate resources within respective business units to accomplish Goals and Objectives of PTASP
- Accountable for business unit oversight, day-to-day operations and maintaining compliance with the PTASP
- Modify policies consistent with implementation of the PTASP and other Statutory regulations

*These are staff who have a direct reporting relationship to the Chief Executive Officer (Accountable Executive).

Key Staff** has the following Authorities, Accountabilities and Responsibilities:

- Accountable for maintaining the infrastructure or program within their area of responsibility
- Accountable for compliance with the Programs and Processes identified within the PTASP
- Support development, implementation and operation of SMS within Metro's PTASP
- Maintain Documents that support the implementation of the PTASP
- Review and investigate SAFE 7 reports and implement corrective actions, as appropriate, in a timely manner
- Investigate employee injuries and document findings of investigations in Metro's reporting system
- Verify PTASP compliance and report deviations to the Corporate Safety Department

**Key Staff are people who directly oversee a division, facility, craft, and all staff in the organizational structure up to but not including Executive Management.

Additional departmental roles and responsibilities are outlined in Appendix E.

§673.25 SAFETY RISK MANAGEMENT

Safety Risk Management is a cornerstone to SMS. During this process Metro identifies, evaluates, and devises means to eliminate, mitigate the risk of, or accept hazards. Not all hazards can be eliminated given the resources at hand. Metro's goal with Safety Risk Management is to mitigate the risk of hazards to a level as low as reasonably practicable - to a level where the cost involved in reducing the risk further would be grossly disproportionate to the benefit gained. The processes outlined in this section describe Metro's approach for identifying hazards, reporting them, investigating them, evaluating them, and finally mitigating the risk from them.

§673.25(a) SAFETY RISK MANAGEMENT PROCESS

This process involves identifying, reporting, investigating, evaluating, and mitigating risk of work place hazards and near-miss incidents through various means. Once identified and reported, the hazard's risk is evaluated, corrected or mitigated by implementing design changes, installing safety devices, installing warning devices/signage, or changing work practices/work procedures to provide a level of safety that is practical with the available resources of the agency.

§673.25 (b) SAFETY HAZARD/NEAR-MISS INCIDENT IDENTIFICATION, REPORTING, AND INVESTIGATION

Hazards may be identified by the following sources or methods:

1. As a result of occupational injury or illness investigations
2. As a result of accident investigations
3. By observing the working environment and any changes in the workplace. (e.g. FOF)
4. As a result of routine and non-routine Inspections
5. From Hazard/Near-Miss Incident Reporting by Employees
6. As a result of Lessons Learned
7. From Internal and External Audits/Reviews
8. Provided by the CPUC/FTA in their inspection reports (§673.25(b)(2)

Metro has adopted an electronic Hazard/Near-Miss Incident Reporting System called SAFE-7 that is available to all Metro employees. Any employee, without fear of reprisal, can use the SAFE-7 system to report a Hazard/Near-Miss Incident and can submit reports transparently or anonymously if they choose to do so. However, near-miss incidents or rule violations that are captured through Metro's reporting system such as SCADA, videos, SMART DRIVE, and Supervisors Observation are not subject to protection from reprisal, and may result in disciplinary action in accordance with the Collective Bargaining Agreements. All hazards/near-miss incidents identified by employees must be reported through the SAFE-7 system. This consistent process is necessary to properly record, track, and trend hazards and it also allows management to provide a response back to the employee who submitted the Hazard/Near-Miss Incident. Hazards and findings identified by CPUC and other external agencies are tracked separately.

Imminent Safety Hazards

For serious hazards that are immediately dangerous to life and health (IDLH), employees shall take immediate action to mitigate the risk of the hazard. Documentation of the hazard within SAFE-7 can follow after such immediate action is taken.

If the hazard cannot be immediately abated, all personnel are to be removed from the affected area until their health and safety can be assured. Corporate Safety and the affected department(s)/division(s) management shall be notified.

After a hazard(s) is entered into the SAFE-7 system, the responsible department head shall:

1. Conduct an investigation of the SAFE-7 report.
2. Document the results of the investigation in the SAFE-7 system within 30days of notification. The documentation must include all supporting information as necessary (i.e. Photos, Measurements, etc.) to explain how the investigation was performed.
3. Provide a response back to the employee who submitted the SAFE-7 report or post it on the safety bulletin board if the report was submitted anonymously.
4. Approve the mitigation, monitor the mitigation to completion, close the incident in the SAFE-7 system, and post the summary of reported hazards/near misses (SAFE-15 logs).

The employee is responsible for checking the status of their reported hazard via their incident number which is provided to them once the hazard is reported, or if they submitted an anonymous report, by checking their respective Safety Bulletin Board, which is located at every Division, Facility or Location. If within 30 days the results of the investigation are not in the SAFE-7 system or have not been posted on their Safety Bulletin board, the employee may submit their SAFE-7 report to Corporate Safety, Mail Stop 99-11-3 for follow up.

The Corporate Safety Department will report to the CPUC any specific hazards as identified in CPUC regulations.

§673.25(c) SAFETY RISK ASSESSMENT

The Corporate Safety Department will be responsible for assessing each safety hazard and assigning a priority level as listed below. See the Table below for the Hazard Management Matrix that is used for rating risk of identified hazards.

Consequences	Severity Level					
	Severity Level	**1 Catastrophic**	**2 Critical**	**3 Marginal**	**4 Negligible**	**5 Inconsequential**
	Injury or Occupational Injury	Death	Fracture, Severe Bleeding, Paralysis, Brain Injury, Dismemberment	(Brusing, Abrasions, Sprains/Strains) Ambulance Transport	(Bruising, Abrasions, Sprains/Strains) First aid	No Injury
	Property Damage	> $10,000,000	> $5,000,000 to $10,000,000	> $1,500,000 to $5,000,000	< 1,500,000	No repair needed

Probability			MTBE* in Days	Likelihood of event in life of a specific item	Probability [X] Severity				
	A	Frequent	10 per month	Will occur frequently	A1 High	A2 High	A3 Serious	A4 Medium	A5 Low
	B	Probable	10 per year	Will occur several times	B1 High	B2 High	B3 Serious	B4 Medium	B5 Low
	C	Occasional	10 per 2 years	Likely to occur sometimes	C1 High	C2 Serious	C3 Medium	C4 Low	C5 Low
	D	Remote	10 per 5 years	Unlikely but possible to occur	D1 Serious	D2 Medium	D3 Medium	D4 Low	D5 Low
	E	Improbable	10 per 10 years	So unlikely, assumed occurrence may not be experienced	E1 Medium	E2 Medium	E3 Medium	E4 Low	E5 Low
	F	Eliminate	N/A	Actions taken to remove the hazard/conflict	Eliminated				

Resolution Requirements		
High	Unacceptable	Correction required
Serious	Undesirable	Correction may be required, decision by management
Medium	Acceptable	With review and decision by Safey Specialist
Low	Acceptable	Without review
Eliminated	Acceptable	No action needed

*Mean Time Between Events - The likelihood that hazards will be experienced during the planned life expectancy of the system can be estimated in potential occurrences per unit of time, events, population, items or activity. The probability may be derived from research, analysis and evaluation of historical data available in the electronic SAFE-7 System since January 1, 2019.

The Corporate Safety Department may determine that even though a particular hazard does not meet one of the above priority ratings, it may warrant an assessment and mitigation.

Regardless of how the hazard was originally identified, the Local Safety Committees (LSC) maintain a log (SAFE-15) to track all hazard reports and to record the completion of corrective actions. All hazards will be reported and discussed at the monthly LSC meetings. The CPUC is invited to all Rail LSC meetings. Rail A1, A2, B1, B2 & C1 hazards will be reported to the CPUC within 2 hours of being assessed as such. The Corporate Safety Department will be responsible for notifying the CPUC of the aforementioned hazards .

Regarding Rail, in addition to reviewing hazards at the monthly LSC meetings, the following hazards will be discussed at the CPUC Quarterly Meetings: red signal violations, wrong side door openings, crossing gates not lowering on approach of

train, and signal failures resulting in false proceed indication.

§673.25(d) SAFETY RISK MITIGATION

The department/division management to whom the SAFE-7 is reported will attempt to correct all hazards identified. For those hazards that cannot be rectified in a reasonable and timely manner, (depending on the nature of the hazard, and whether the resolution is within Metro's control), management will establish a target completion date. The department/division management will analyze the hazards, including near-miss incidents, and develop recommendations for elimination or risk mitigation of the hazard. Interim measures to mitigate the risk of the hazard should be implemented until the final corrective action is completed. Recommendations may include modification of equipment or facilities design, changes to maintenance schedules or practices, revision of operating rules/procedures, employee training, relocation of bus stop locations, modifications to rail stations, installation of traffic control devices or traffic signs, and markings, etc. Although other Metro departments or external agencies may have the responsibility to implement corrective actions, the department head who received the SAFE-7 report is ultimately responsible for follow up activities and making sure the corrective action is completed. If another department is responsible for the implementation of the mitigation, department management shall include the name of the person and entity responsible (i.e. Metro Department, City, LADOT, etc.) for taking corrective action with a target date of implementation.

Once the hazard has been corrected or risk has been mitigated, division management is responsible for documenting the resolution within SAFE-7. If the risk from the unsafe condition is not or cannot be mitigated, a reason should be provided within the SAFE-7 system. If a proposed solution requires funding that cannot be implemented by division management, it shall be elevated to the Joint Labor Management Safety Committee (JLMSC). Corporate Safety staff monitors the closure of hazards/near-miss incidents reported in the SAFE-7 system.

Proactive Risk Mitigation through Procurement

Metro's Procurement process ensures that materials and services obtained by Metro do not degrade the safety of the transit system. This involves including safety requirements in contracts and obtaining Safety Data Sheets (SDS). The SDS Program has established specific procedures for the acquisition and dissemination of information regarding hazardous materials. Approved SDS information can be accessed via Metro desktop computers at all Metro Divisions via the SDS database. Materials are evaluated by the Corporate Safety Department for safety implications prior to purchase and/or use. When new materials/chemicals are delivered, the inventory control department verifies via Metro's enterprise asset management software system, that the item delivered has been previously approved. The

Operations and Maintenance Departments must meet applicable state, federal, and local regulations for the proper labeling, storage, handling, and disposal of hazardous materials including documentation and record keeping requirements.

The procurement of parts must follow established procedures. Parts may not be substituted without prior authorization of a manager within the department and only if the substitution will not adversely affect the safety of any system.

Functions of the Procurement/Vendor Contract Management Department include:

- Ensure procurement process complies with established procedures for evaluating materials and products for use by Metro
- Ensure that products purchased meet SDS requirements, copies of SDS are delivered with all materials and that materials undergo an evaluation before purchase by the Industrial Hygiene and Environmental Safety Section is performed
- Develop, maintain, and utilize a list of hazardous materials and equipment; Procurement enforces restrictions and other procurement procedures
- Adhere to safety procedures as defined by Corporate Safety related to hazardous substance acquisition, handling, labeling, storage, disposal, and record keeping. Ensure that SDS requirements are met and copies maintained for all materials and that the materials undergo an evaluation by the Industrial Hygiene and Environmental Safety Section prior to use
- Ensure that contractors meet requirements related to the safety of Metro employees, property and the public

Proactive Risk Management through Asset Management Condition Assessment

Metro's Enterprise Transit Asset Management Department conducts condition assessments of some of Metro's assets consistent with TAM Rule 49 CFR Part 625. The results of the condition assessments performed for TAM purposes are shared with various Metro stakeholder departments such as Operations and Corporate Safety. Metro's TAM plan includes a process for reviewing funding needs in the Long Range Plan and capital project proposals against the prioritized asset inventory which serves as a decision support tool. Department heads will be responsible for prioritizing and addressing the safety issues as identified in the condition assessment reports. The implementation of remediation measures will be tracked and reviewed in the Maintenance and Engineering Senior Staff meetings. Based on the condition assessment reports that are provided to internal stakeholders, Operations uses these reports to inform and make prioritization decisions of assets that need to be replaced.

Risk Mitigation through Health and Regulatory Authorities

In evaluating measures to control the risk for various hazards, Metro will follow the guidelines and guidance of Federal, State, and Local public health authorities and oversight agencies, such as the FTA and the CPUC.

Infectious Diseases Exposure Control Plan
Metro Corporate Safety, in collaboration with the Chief People Office (CPO), Emergency Preparedness and other departments, has developed the Metro Public Health/Pandemic Plan for Infectious/Communicable Diseases to prepare the agency for dealing with the effects of a health pandemic, communicable and other reportable diseases. The plan is consistent with the requirements and guidance of the Centers for Disease Control and Prevention, Los Angeles County Department of Public Health, and California Occupational Safety and Health Administration (OSHA).

Each department has the responsibility to follow, as outlined, this Public Health Plan. The Plan is consistent with Metro's policy to provide a safe and healthy working environment for employees and a safe transit system for the public.

For additional information, employees can retrieve Metro's Public Health/Pandemic Plan for Infectious/Communicable Diseases on RSAM's Website via the Intranet.

§673.27 SAFETY ASSURANCE

Metro ensures that Safety Assurance is maintained through efforts in three core areas:

1. Safety Performance Monitoring and Measurement
2. Management of Change
3. Continuous Improvement

This section outlines the means and methods that Metro uses to ensure Safety Assurance in each core area.

§673.27 (b) SAFETY PERFORMANCE MONITORING AND MEASUREMENT

Metro has several programs to monitor its bus and rail systems for safety and regulatory compliance. These programs include the following:

RAIL MODE

FIELD OBSERVATION AND FEEDBACK (FOF)

The FOF is a behavior-based safety process that creates a safety partnership between management and employees/contractors that focuses on evaluating employees performing tasks and their actions. Moreover, the FOF process is the means for management to monitor and document the safety performance of personnel working in their work environment.

An FOF session must include a "safety contact(s)." A safety contact is an observation of a safe or unsafe act or behavior of an employee followed by dialogue addressing the situation. Observations focus on constructively and positively reinforcing safe acts, gaining employee commitment to stop unsafe acts and encouraging two-way communication about safety-related concerns. Life threatening and unsafe behaviors observed are addressed and acted on immediately.

With respect to Wayside Maintenance Employees, Supervisors are responsible for verifying compliance with established rules and procedures.

EFFICIENCY TESTING/ PERFORMANCE EVALUATIONS

The head of the Rail Transportation Instruction department is responsible for developing the Rule Book, managing changes to the Rule Book and overseeing efficiency testing to determine the knowledge and application of operating rules and procedures. Rules and procedures that affect safety are contained in the Metro Rail Book of Operating Rules and Procedures. Compliance with these rules and procedures is routinely checked as part of line rides and performance evaluations.

Each month, the Rail Transportation Instruction (RTI) staff issues 2 rules compliance tests, based on the rulebook, that must be completed by Division Management. The tests evaluate operators' knowledge and conformance with the selected rules. A minimum of 20 operators per line, per month are randomly selected by Supervisors on the AM and PM shift (10 per shift) to evaluate compliance with the rules.

VIDEO BASED ENFORCEMENT AND MONITORING PROGRAM

Metro has installed a video-based monitoring system in the operating cabs of each rail

car. Metro uses this video-based system to supplement the random monitoring and enforcement of its operating rules, including rules and policies governing the use of electronic devices. Operations staff utilizes the video-based system to download and observe 10% of the operators on each line per quarter to determine compliance with the CPUC General Order 172 series, and includes, as part of the 10%, incidents involving the following:

- a derailment
- a collision
- a complaint or observation of an alleged violation of the GO 172 series

Records of the observations from this video-based program are maintained for a period of three (3) years. Video recordings only for instances of any violation of rules/policies and the above described three instances are maintained. These videos are made available to the CPUC staff upon request but are maintained until the last appeal of any litigation or disciplinary action is complete.

FACILITY INSPECTIONS

A safety inspection program is essential in order to reduce unsafe conditions that may expose staff, and visitors to incidents that could result in injury, illness and exposure or property/capital asset damage. It is the responsibility of each organizational level, down to the lowest applicable cost center, to ensure that appropriate, systematic safety inspections are conducted periodically.

Periodic safety inspections will be conducted at each operating facility by department management/division trained personnel to identify (which may include survey/polling) and document unsafe conditions, work rules or work practices inconsistent with Federal, State and Local government agencies.

Rail Communications and Facilities Maintenance performs inspections of the public rail facilities, such as rail stations, in accordance with their respective departments' maintenance plan.

In addition to public facility inspections, Division/Location Facility Inspections are conducted at each rail division on a monthly basis for both Transportation and Maintenance Departments utilizing the facility inspection checklist for their respective department type.

Each department's Facilities Inspection responsibilities include:

- Utilize checklists to periodically inspect work areas for unsafe and unhealthy conditions and report and correct conditions as appropriate

- Maintain inspection documentation records
- Track and take appropriate corrective action(s)
- Report unsafe conditions and failures, both physical and operational, to appropriate organizational units so the condition can be corrected and/or operational changes can be made
- Submit hazards and proposed system modifications resulting from inspections to the appropriate committees

INTERNAL SAFETY REVIEW

The PTASP Internal Safety Review (ISR) provides a comprehensive method of measuring effectiveness of the PTASP in achieving its objectives.

Under requirements of the CPUC GO 164 series, this review ensures that the state required elements of the PTASP are reviewed in an on-going manner and completed over a three-year cycle. The ISR is conducted on an annual basis and a schedule of the reviews is submitted to the CPUC staff prior to the start of such reviews, allowing for CPUC staff participation. A list of items to be reviewed is developed at least a month in advance. This review includes checklists that address both quantitative and qualitative aspects of performance.

Each department is responsible for PTASP compliance and for reporting deviations to the Safety department, which has overall verification responsibility. The ISR process will provide a means of documenting whether organizational units are fulfilling their PTASP responsibilities.

The Corporate Safety Department is responsible for establishing a review team and for conducting the ISR. Reviewers who conduct the reviews are independent from the first line of supervision responsible for the activity being reviewed.

Review Reporting

The Corporate Safety Department submits the ISR Report directly to the Chief Executive Officer (CEO) for review. This report includes an evaluation of the adequacy and effectiveness of the PTASP with findings, conclusions, and any necessary recommendations/corrective actions. After the CEO reviews the report, it is submitted to the CPUC for approval and then to the responsible departments for implementation, if applicable, of the corrective action plans described in the report.

Follow-Up/Action Plans

Departments and other organizational units are responsible for implementing their respective approved recommendations and action plans. Any department or other organizational unit that foresees or encounters a problem in completing

implementation within the established time frame shall inform the Corporate Safety Department head.

LINE RIDES

Line rides provide an opportunity for one-on-one interaction between the Operator and Instruction staff. Line rides allow for firsthand observation of an Operator's habits and result in immediate verbal and written feedback. The purpose is to uncover and point out unsafe practices, as well as to give positive reinforcement for safe operating practices. Line rides can occur as a reactive measure (post-accident rides or rides initiated in response to customer complaints or documented violations of safety rules), or proactively, such as when the Operator is learning a new rail line or receiving other types of instruction.

BUS MODE

FIELD OBSERVATION AND FEEDBACK (FOF)

The FOF is a behavior-based safety process that creates a safety partnership between management and employees/contractors that focuses on evaluating employees performing tasks and their actions. Moreover, the FOF process is the means for management to monitor and document the safety performance of personnel working in their work environment.

An FOF session must include a "safety contact(s). " A safety contact is an observation of a safe or unsafe act or behavior of an employee followed by dialogue addressing the situation. Observations focus on constructively and positively reinforcing safe acts, gaining employee commitment to stop unsafe acts and encouraging two-way communication about safety-related concerns. Life threatening and unsafe behaviors observed are addressed and acted on immediately.

FACILITY INSPECTIONS

A safety inspection program is essential in order to reduce unsafe conditions that may expose staff, and visitors to incidents that could result in injury, illness and exposure or property /capital asset damage. It is the responsibility of each organizational level, down to the lowest applicable cost center, to ensure that appropriate, systematic safety inspections are conducted periodically.

Periodic Safety Inspections will be conducted at each operating facility by department management/division trained personnel to identify and document unsafe conditions, work rules or work practices inconsistent with Federal, State and Local government agencies.

Facility Inspections are conducted at each bus division on a monthly basis for both

Transportation and Maintenance Departments.

SMARTDRIVE VIDEO MONITORING

The SmartDrive is g-force based video monitoring utility. When an event on a bus reaches a threshold, the SmartDrive system records video footage. There are four types of events that are triggered and recorded by the SmartRecorder for use in the Measured Safety Program: Erratic, Shock, Speeding, and Manual. Erratic Events are characterized as Moving Events.

They are triggered by sustained forces from multiple directions (front/back, left/right, and up/down) over relatively long periods of time (typically between 0.25 and 1.5 seconds) as measured by an accelerometer in the SmartRecorder. Erratic Events capture risky driving maneuvers such as hard braking, acceleration, turning, swerving, speed bumps, dips in the road, etc. Shock Events are also characterized as Moving Events. They are triggered by sudden changes in force in any direction as measured by an accelerometer in the SmartRecorder. Shock Events have a higher likelihood of recording Collisions, but they can also be triggered by other actions that involve sudden changes in forces such as when a vehicle hits a pothole or a bump at high speed.

Speeding Events are characterized as Moving Events. They are triggered when the vehicle speed exceeds a specified threshold. For example, if the threshold is set for 70 mph, then the SmartRecorder will record a Speeding Event when the vehicle speed exceeds 70 mph. To balance the number of Speeding Events that may be recorded at any given time, the SmartRecorder will only record one Speeding Event within a 30-minute timeframe.

Unlike the other three event types, Manual Events are not Moving Events. They are triggered when the driver or other occupant of the vehicle presses the manual trigger button on the SmartRecorder or on the keypad. Manual Events enable Operators to record Videos which contain actions of interest that are not necessarily related to risky driving.

Operations Staff reviews SmartDrive events daily to ensure timely coaching, retraining or discipline for unsafe acts. Coachable events are placed in the Coaching Queue. Additionally, Supervisors review manually-triggered events when Operators submit written notification. Coachable events belonging to the Maintenance Department are brought to the attention of the Maintenance Manager for coaching, retraining, and/or discipline.

LINE RIDES

Line rides provide an opportunity for one-on-one interaction between the Operator and Instruction staff. Line rides allow for firsthand observation of an Operator's driving habits and result in immediate verbal and written feedback. The aim is to uncover and point out unsafe practices, as well as to give positive reinforcement of safe driving practices. Line rides can occur as a reactive measure (post-accident rides or rides initiated in response to customer complaints or documented violations of safety rules), or proactively, such as when the Operator is learning a new bus line or receiving other types of instruction.

§673.27(b)(2) SAFETY RISK MITIGATION MONITORING PROCESS

Metro monitors its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. Metro also reviews pre-mitigation and post-mitigation trend data captured in various Metro electronic systems to determine the effectiveness of the safety interventions.

As part of Metro's risk reduction program, it has implemented several initiatives, some of which are listed below, to improve safety by reducing the number of accidents, injuries, assaults and visibility impairments on buses.

For example, Metro has been tracking the effectiveness of the following projects:

- Ped-gate/swing-gate project (monitored through Blue Line Quarterly Report)
- Left turn gate project (monitored through Blue Line Quarterly Report)
- In-pavement street lights on Gold Line East Side Extension
- Bar signals interfaced with interlocking signals on the Gold Line
- Photo Enforcement for rail and bus on the Orange Line
- Bus turn alert system
- SmartDrive for bus and rail
- 2-section barriers to deter assaults on bus operators (Metro’s entire bus fleet is equipped with barriers)
- Video cameras and closed-circuit video monitors on all busses that show passengers boarding and in the seating areas of the bus to deter bus operator assaults

Metro will continuously canvas and evaluate technologies regarding reducing visibility impairments for buses. New technological advances that have proven to be effective will be incorporated in future procurement specifications for the bus fleet.

To address visibility impairments on Metro’s current buses, Metro has developed

training and SOPs that address how best to avoid accidents, especially when making right- and left-hand turns.

Metro has also incorporated de-escalation training as part of its efforts to mitigate transit worker assaults. Furthermore, Metro's System Security and Law Enforcement Department conduct routine patrols and inspections to deter transit worker assaults.

Metro will also evaluate advancements in technology to address other system operational improvements and enhancements such as communication systems, CCTV systems, train control systems, etc.

§673.27(b)(3) ACCIDENT NOTIFICATION, INVESTIGATION, AND REPORTING

Metro conducts investigations of accidents to identify causal factors through Accident Investigation Procedures (AIP). The AIP are outlined in Appendix F for the rail mode, and Appendix G for the bus mode. If there is a difference of opinion as to rail accident investigation findings, this will be resolved through CPUC established procedures as outlined in the "Rail Transit Safety Branch Program Standard - Procedures Manual State Safety and Security Oversight of Rail Fixed Guideway Systems."

RAIL MODE

The Corporate Safety Department submits a Monthly Service Record, Accident, Hazard, and Corrective Action Summary Report (Form V) to the CPUC, within 30 calendar days after the last day of the month in which the accident occurred. Moreover, it also submits accident data to the Federal Transit Administration (FTA) via the National Transit Database (NTD).

BUS MODE

The Corporate Safety Department submits monthly accident data to the FTA via the National Transit Database (NTD).

§673.27(b)(4) INTERNAL SAFETY REPORTING PROGRAM MONITORING

Metro monitors information reported through Safety Data Acquisition and Analysis, its internal safety reporting program, SAFE-7, the drug and alcohol abuse program, as well as through various committees described below.

A. Safety Data Acquisition and Analysis

This function involves collecting and analyzing incident data in order to identify trends, mitigate any associated hazards and prevent recurrence of incidents on the

bus and rail system. For example, the Corporate Safety Department compiles the Summary of Metro Blue (A) Line Train/Vehicle and Train/Pedestrian Accidents - this quarterly report summarizes the contributing factors, direction of travel of the train, and the location where accidents have occurred on the A Line. The Corporate Safety Department also reviews the bus and rail accident statistics and determines the types of mitigating measures, if any, to be implemented. Often, incidents are the result of unsafe behaviors of third parties, which are beyond the control of Metro, and for which mitigations are not feasible. Based on the collection of data and analysis of the data, the Corporate Safety Department has, over a number of years, implemented several enhancements on its bus and rail system. Some of these enhancements include four quadrant gates, active train warning signs for motorists and pedestrians, photo enforcement system, in-pavement warning lights, left turn gates in street running, pedestrian gates/swing gates, bus operator barriers, bus monitors on buses, pilot programs of bus audible and visual alerts to mitigate bus/auto and bus/pedestrian collisions, on-board video based enforcement system (SmartDrive), and in-cab camera system. Safety data is exchanged with other transit systems and is provided to external agencies as required. Because of the significantly lower number of accidents on the Metro L Line, Metro E Line, Metro C Line and Metro B Line, with the latter two lines experiencing mostly suicide type accidents, no meaningful trend can be established; hence, similar quarterly reports as the one for the Metro A Line, are not helpful and, therefore, not developed. However, the Corporate Safety Department maintains a data base of accidents that occur on these lines and based on trends, implements enhancements as warranted.

Other data, such as assaults on transit workers, is also collected and analyzed to better determine law enforcement strategies to mitigate such incidents.

B. SAFE-7 Reporting

As outlined in our Hazard/Near-Miss incident Reporting Process, SAFE-7 is Metro's repository for reporting operational safety issues. Refer to the Hazard/Near-Miss incident Reporting Process in §673.25(b) for more detailed information on how this element is achieved.

C. Drug and Alcohol Abuse Program

The CPO administers Metro's policy titled Drug and Alcohol Free Work Environment. CPO ensures that the policy is compliant with applicable regulations, is updated periodically, and is disseminated to all employees. CPO also monitors training of newly hired safety-sensitive employees as well as trainings for supervisors and/or other company officials authorized to make reasonable suspicion determinations. CPO ensures that informational materials on the dangers of substance abuse and the Employee Assistance Program, designed to provide counseling, guidance, and

information to help with many topics such as substance abuse, parenting, childcare, elder care, relationships, work-life balance, grief, crime victim or witness to crime, death and or other trauma, well-being, etc. is readily available to all Metro employees.

In addition, CPO staff takes the lead in training supervisors to fulfill their responsibilities as related to the policy. The guidelines, procedures, and programs set forth in this policy comply with all applicable state and federal regulations governing workplace anti-drug use and alcohol misuse in the transportation industry. These regulations include, but are not limited to, the following:

- Department of Transportation (DOT) 49 Code of Federal Regulations Part 40, as amended (Procedures for Transportation Workplace Drug Testing Programs)
- Federal Transit Administration (FTA) 49 Code of Federal Regulations Part 655 (Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations)
- 41 U.S.C. Section 701-707 (Federal Drug-Free Workplace Act of 1988)
- California Government Code Section 8350. et seq. (Drug-Free Workplace Act of 1990)
- California Public Utilities Commission (CPUC) General Order 143 Series

Some of the functions of the CPO include:

- Coordinate reasonable accommodations and leaves of absence.
- Ensure that successful candidates for positions are capable of safely performing the tasks of these positions on a repetitive basis
- Administer Metro's medical services coordination and Metro’s drug and alcohol program/policy
- Oversee medical examinations and testing.

Each Metro Departments' role in supporting the Drug and Alcohol Program is to:

- Comply with procedures established by the CPO for testing and disciplining employees in accordance with Alcohol and Drug Free Work Environment Policy
- Deter and detect employees' use of illegal drugs and misuse of alcohol
- Discipline employees who violate the Policy, up to and including termination

§673.27(c) MANAGEMENT OF CHANGE

Metro's Program Control, Vehicle Technology, and Rail Vehicle Engineering departments facilitate changes to rail and bus operations through the System Modification and Configuration Management Process.

System Modification
Changes to Metro systems and subsystems must not be made without first

determining how the change might affect the safety of the system, or of any other system. The proposed modification must be evaluated for its potential to create additional hazards or to reduce the effectiveness of existing hazard controls. Metro has implemented a procedure, Operations Configuration Change Control, found in the CF15 procedure that establishes a process to ensure notification and review of proposed changes.

Individual departments must submit proposed system changes involving facilities, equipment/software or other physical modifications to Program Control, Vehicle Technology, or Rail Vehicle Engineering in accordance with procedures established in CF15.

Each Metro Departments' role in this function is to:

- Incorporate safety into proposed modifications of Metro transit systems
- Meet the safety requirements established for all purchases of equipment and supplies including its proposed storage, transfer, use, record keeping, and disposal
- Submit proposed system modifications to the respective party for document control
- Carry out assigned system modification tasks
- Evaluate proposed system and subsystem modifications from a safety perspective

Configuration Management

Configuration Management is a process which attempts to ensure that all changes to facilities, equipment, systems, design elements, etc., are updated to reflect the most current configuration, accurately and completely.

Program Control, Vehicle Technology, and Rail Vehicle Engineering is responsible for distributing proposed physical modifications to the appropriate Operations, Maintenance, Engineering, Safety department, and other necessary units for review and comments and for processing the approval of these configuration modifications. The appropriate Engineering department head is responsible for updating the as-built configuration drawings and notifying the Program Control Department when they are completed.

Functions of the Program Control, Vehicle Technology, and Rail Vehicle Engineering departments include:

- Maintain a computer database log of proposed changes.
- Submit the change proposal to the Operations, Maintenance, and Corporate Safety Department and others for review and comments. The Corporate Safety Department will review the proposed change to determine any

negative safety impacts in accordance with the Safety Risk Management Process, described in §673.25(a).
- Coordinate resolution of all comments on the proposed changes
- Process change control documents
- Maintain Change Request/Order files; action items; general drawing and change status reports
- Provide updated drawings to affected Operations (field) Technical Libraries
- Respond to requests for latest drawing configuration, changes pending on drawings, and the status of each change in the system

Safety Certification Process

The Safety Certification process verifies that safety-related requirements are incorporated into rail transit projects. The goal is to verify that safety standards are met or exceeded in the design, construction and start-up of these projects. This process also verifies that safety concerns and hazards are adequately addressed.

Projects may include new rail systems or extensions, the acquisition and integration of new vehicles and safety critical technologies into existing service or major safety critical redesign projects, excluding functionally and technologically similar replacements.

Metro certifies its rail transit projects to the CPUC. The CPUC requirements for safety certification are identified in General Order 164 Series, which Metro adheres to.

The Safety Certification Review Team (SCRT) is responsible for overseeing the activities of the Safety Certification Plan. The goals of the Safety Certification Program are to:
- Verify that acceptable safety levels are met or exceeded in all Metro rail transit projects
- Document the verification of safety standards
- Provide a consistent manner to certify projects

Bus Acceptance Process

Metro's Bus Warranty Department manages the acceptance of all new buses. Through their acceptance program, buses are inspected and accepted into the Metro Bus Fleet based on established industry safety standards. The goal is to verify that safety standards are met or exceeded in the design before being introduced into revenue service.

Rule/SOP Modification

Rail Mode:

The Rail Transportation Instruction (RTI) department is responsible for developing operating rules and Standard Operating Procedures (SOPs), and for managing the
process of modifying rules and SOPs. Rules and procedures are reviewed periodically and when new rail lines or extensions are opened or when accidents or incidents indicate a possible rule modification or clarification is necessary.

Any rail employee may submit a request to his or her supervisor for a new or revised rule/procedure at any time. The supervisor or manager, in turn will forward the request to the RTI department. The RTI department will evaluate the proposal and distribute all the Rules/Standard Operating Procedures that need to be revised to the affected departments including the Corporate Safety Department for review and comments, before implementing the revisions.

URGENT REQUESTS FOR A NEW OR REVISED RULE/PROCEDURE - These may be sent by any employee to Rail Transportation Instruction, for immediate action. These may be sent verbally, with written documentation to follow. The above process may be bypassed to accommodate the urgency, to provide a temporary new or revised Rule/Procedure if approved by the department head of Rail Transportation. Changes to rail operating rules and procedures are submitted by the Corporate Safety Department to the CPUC in accordance with CPUC GO 143 Series.

Bus Mode:

Operations Central Instruction (OCI) department is responsible for developing operating rules and Standard Operating Procedures (SOP's), and for managing the process of modifying rules and SOP's for Bus Operations. Any bus employee may submit a request to his or her supervisor for a new or revised rule/procedure at any time. The supervisor or manager, in turn will forward the request to OCI.

OCI will evaluate the proposal and distribute all the Rules/Standard Operating Procedures that need to be revised to the affected departments including the Corporate Safety Department for review and comments, before implementing the revisions.

Rules and procedures are reviewed periodically and when accidents or incidents

indicate a possible rule or procedural deficiency. In addition, any employee can propose a rule or procedure modification.

Following the modification, the unit overseeing the process is responsible for disseminating rule and procedure modifications to appropriate parties.

Urgent changes are made by department heads having control over specific rules and procedures by means of bulletins, notices, or orders. The development of site-specific rules and procedures must be controlled. In addition, site specific rules and procedures must fulfill existing safety requirements; not create new hazards or reduce the effectiveness of existing safety controls; and not increase the risk to individuals, equipment, property, or the environment.

§673.27(d) CONTINUOUS IMPROVEMENT

Metro has established multiple processes to assess its safety performance and facilitate continuous improvement. The programs include but are not limited to:

a. Quarterly JLMSC meetings.
b. Outside Auditing agencies (Systemwide) - Metro is audited by multiple outside agencies, including Federal, State, and contracted agencies which serve as a mechanism to implement enhancements for continuous improvement.
c. Internal Safety Reviews - Corporate Safety Department conducts internal reviews of elements included in this PTASP to ensure that responsible departments follow safety expectations of this PTASP. When these reviews include recommendations, a corrective action plan is initiated and seen through to completion in accordance with GO 164 series.
d. RAP Sessions-Are meetings between Division Management, and staff to discuss concerns that employees may be experiencing in the field, and in the work process. Employees can use their experiences and suggest solutions to issues that they encounter. Employees also get updates on Division activity that they may not normally receive in the performance of their usual duties.

Metro has various levels for continuous improvement, specifically in accordance with 49 CFR 673, the Internal Safety Review and CPUC's Triennial Audit may generate recommendations that are approved and directed by the Chief Executive Officer.

In addition to the above processes, Metro personnel can make suggestions to any Department or group where they may see an area of needed safety improvement.

This may be coordinated through discussion with various department heads, at LSC meetings, etc.

Through the Continuous Improvement Processes described above, Metro is then able to develop and carry out a plan to address the identified safety deficiencies by:

i. Prioritizing identified deficiencies
ii. Creating Strategic Initiatives to overcome such deficiencies
iii. Re-evaluating progress on our improvement measures through our SMS program.

If a safety recommendation made to improve a program, process, or safety deficiency is not implemented, the department(s) involved shall provide a written justification to the Corporate Safety Department.

§673.29 SAFETY PROMOTION

The promotion of safety is accomplished through Metro's Safety Training program and other means of safety communication described below. Metro fosters active, open and ongoing communication through various outlets explained in this section. Employees can communicate to management about issues as they arise, and in turn, management has the opportunity to provide training, messaging, and use other communication tools to promote a safety culture. Through open dialogue, hazards can be identified, and understood so employees know what risks they may encounter, and what Metro is doing to eliminate or mitigate the risk.

§673.29(a) SAFETY TRAINING PROGRAM

All Metro personnel directly connected with the operation of buses or trains will be required to undergo certification and re-certification training, as necessary.

Each Metro Departments' role in this function is to:

- Maintain each of their employees' training, certification, and recertification records.

- Train department employees in elements of the PTASP and safety programs that have relevance to their positions.
- Document the training in accordance with their department's practices. This may be through electronic database, or through hard copy files.
- Develop programs to ensure training adequately communicates the specific hazards employees may be exposed to; implement appropriate hazard control methods; provide warnings and restrictions; develop safety rules and procedures; and practice emergency procedures including those related to response, communication, and evacuation. Employees must receive required training and/or certification/re certification as it pertains to their discipline.
- Distribute and display safety information, bulletins, notices, rule changes, posters, etc. in a manner that effectively communicates the information to employees.
- Monitor and document compliance with the training through FOFs or efficiency tests.

Employees, whose duties directly impact the safe operation of the system, will be formally trained and certified by successfully passing specialized training courses. Also, these employees must pass recertification on a regularly scheduled basis to retain their positions.

In addition to the safety programs mentioned in §673.29(b), Metro also offers a variety of security training programs including training to respond to incidents involving drug overdose and other emergency procedures such as cardiopulmonary resuscitation.

Rail Specific Safety Training:

Safety Training is generally required for all persons working on the Metro Rail System. In certain cases, persons may conduct work on the Metro rail system without attending safety training, provided they are escorted by an individual who is currently certified in roadway worker protection training, consistent with GO 175 Series. SOP #55 Wayside Worker Protection outlines on-track protection requirements for Roadway Workers. The purpose of safety training is:

- To identify the rail system operating practices and standards
- To ensure safe operation of the rail system
- To ensure the safety of all persons working on or about the rail systems as well as the riding public.

Rail Transportation Instruction provides the training and refresher training required to employees, contractors, subcontractors, law enforcement and fire

services personnel as identified in Appendix H. They maintain these documents in accordance with their department's practices.
Upon completion of safety training, employees are issued a picture identification badge. The badge is to be worn or be in the possession of persons at all times, while accessing Metro facilities or systems. Any person not wearing or having a badge, is subject to being escorted to a safe area.

All METRO Rail Departments' role in this function is to:

- Comply with rules/procedures and operating techniques to ensure safety requirements are met.
- Evaluate proposed rule and/or procedure changes from a safety perspective.
- Ensure that rules and procedures are developed, maintained and followed.
- Document results of compliance checks.
- Notify the appropriate department head whenever deviations from established procedures occur or are needed.

Rail Vehicle Maintenance Training

Safety training records are maintained between the local Rail Vehicle Maintenance staffs work location and the Metro Training Tracking System. Topics include applicable OSHA training required based upon hazards that maintenance personnel may encounter. Examples of training include: Fall Protection Training, Bloodborne Pathogen, and Personal Protective Equipment.

Rail Vehicle Maintenance Rules and Procedures

The two primary documents containing maintenance rules and procedures are the Maintenance Safety Handbook and the Rail Fleet Services Rulebook and Standard Operating Procedures. The Rail Fleet Services Instruction and Rail Vehicle Engineering units have approval authority over maintenance procedure manuals. In addition, Quality Assurance and Vehicle Acquisition issue Informational Memos as needed to inform organizational units of various equipment related issues and changes in procedures and work practices. The Maintenance Safety Handbook highlights the major safety topics and top safety work practices in rail vehicle maintenance.

Safety Oversight Training

Consistent with 49 CFR 672, all Metro personnel directly responsible for safety oversight of Metro Rail Operations have completed training specified in Appendix A of 672 Public Transportation Safety Certification Training Program.
Additionally, Metro's CSO will also complete this training within 3 years of onboarding with
Metro.

Bus Specific Safety Training:

Bus Transportation Rules and Procedures

The *Operator's Rulebook and Standard Operating Procedures* is re-evaluated as warranted. Bulletins, Operations Notices, and memoranda are also periodically reviewed. Urgent changes to Bus Operator rules/procedures can be made by OCI. A General Notice or Operations Notice is posted on division bulletin boards whenever there is a change to the Operator's Rulebook and Standard Operating Procedures. Operators are required to check the board for notices. If a major change is made, Operators receive additional training.

Bus Maintenance Rules and Procedures

The two primary documents containing maintenance rules and procedures are the *Maintenance Guide Book* and the *Revenue Service Bus Maintenance Plan.*
The Maintenance Instruction unit has approval authority over maintenance procedure manuals. In addition, Quality Assurance and Vehicle Acquisition issue Informational Memos as needed to inform organizational units of various equipment related issues and changes in procedures and work practices. The *Maintenance Safety Handbook* highlights the major safety topics and top safety work practices in bus maintenance.

There are formal training programs for operators and employees involved in maintenance activities. These include training classes, training manuals, and lesson plans. Testing is conducted as necessary to ensure training effectiveness, and all safety training is documented.

Metro utilizes safety training programs as a means of informing employees about hazards associated with their jobs and the appropriate methods for controlling these hazards. The safety training efforts of Metro fall into three main types of training: 1) Initial, 2) Periodic, and 3) Retraining. Training mechanisms include classroom, written and video communications, computer-based training, field exercises, and drills.

Bus Operator Training

OCI is responsible for training new Bus Operators in defensive driving, rules pertaining to safe vehicle operation, pre-trip and pre-pullout inspections, emergency procedures, and injury and illness prevention. This group also performs re-training following traffic accidents, occupational injuries, and as otherwise warranted. A list of required Bus personnel training can be found in Appendix I.

Verification of Transit Training (VTT)
Operators are required to receive 8 hours of training per year under the VTT Program. This training is conducted at the operating divisions by the Division Instruction staff and is described in the VTT manual maintained by OCI. During the license renewal year, each Operator must complete 8 hours of classroom training; in all other years the training may consist of a combination of classroom, hands-on, and behind-the-wheel training.

Operator's Training Documentation
Training records are maintained at the Bus Operator's work location and follow the Operator whenever transferred to a new division.

Bus Maintenance Training
Safety training records are maintained between the local Bus Maintenance staff's work location and Central Maintenance Facility (CMF). Topics include applicable OSHA training required based upon hazards that maintenance personnel may encounter. Examples of training may include, Fall Protection Training, Bloodborne Pathogen, and Personal Protective Equipment (PPE).

Bus System Safety Orientation
Safety orientation is required for all persons, outside of Bus Operations, such as contractors and consultants. This orientation shall be conducted by Division Maintenance staff prior to the commencement of work. The purpose of safety training is:

- To identify the bus system practices and standards
- To ensure safe operation of the bus system
- To identify hazards and the procedures necessary to ensure the safety of all persons working on or about the bus systems

§673.29(b) SAFETY COMMUNICATION

Metro believes in the importance of effective communication to build a more robust safety culture. Training is merely one example of communication. The following methods are the various ways in which Metro communicates safety and safety performance information with employees throughout Metro. In addition to regular safety messages, many of these communication methods convey information on hazards and safety risks relevant to employees' roles and responsibilities.

Safety Communication Methods:

1. New Hire Orientation On-Boarding Safety Presentation - All new Metro employees undergo new hire orientation which includes a safety training

presentation.

2. Safety Training - Bus and Rail Divisions conduct safety training for their employees based on the hazards that they will encounter while performing assigned tasks.
3. Toolbox Safety Talks - Employees are provided relevant safety topics talking about safety issues that may affect their job duties.
4. Craft Specific Training - Each department conducts training pertinent to the tasks that they will perform, such as, hi-rail operations for wayside workers, grade crossing maintenance procedures, customer service training.
5. Sign-For Documentation - When there is an update to rules or SOPs, bus and rail operators are given the information upon sign-in to review, and sign that they have received copies. In addition , when special notices, or memos are distributed, sign-for documentation aids in ensuring that all affected employees have received the communication.
6. Safety TVs - These TVs are located at all divisions. They typically have rolling messages, videos, or power point presentations that remind employees of various hazards they may encounter or special procedures they need to know in order to perform their duties.
7. Safety Banners - Each division has the ability to make safety unique to their environment. Many divisions have enlisted the use of safety banners to count the number of days without an accident, or injury that the division has accomplished. This particular safety communication can help with morale, especially when tied to a reward of some kind (i.e. BBQ for 180 days of no injuries).
8. Safety Bulletin Boards - Every bus and rail division has Safety bulletin boards. These boards will contain applicable safety regulations, safety policies, or key performance indicators information. These boards are typically in a conspicuous location where all employees frequent, such as a lunch or break room.
9. SAFE-7/SAFE-15 Process - The SAFE-7 process is outlined in 673.25 Safety Risk Management and is one of the main pillars of safety communication that employees have to identify hazards to management.
10. LSC Meetings - LSC give employees and division management a forum for exchanging information related to safety issues, programs, policies, and practices. Each Rail Division has formed a committee, with the manager of operations or maintenance chairing the effort.
11. RAP Sessions - Meetings between Division Management, and staff to discuss issues that employees are having in the field, and in the work process. Employees can use their experiences and suggest solutions to

issues that they encounter. Employees also get updates on Division activity that they may not normally receive in the performance of their usual duties.

Safety Requirements:

Employees are Metro's number one asset. Making safety Metro's first concern will positively affect employees' health and well-being, our working and home lives, our efficiency and ability to get the job done and the quality of our service. The Corporate Safety Department is responsible for compliance with CPUC and OSHA requirements. OSHA requires developing and implementing health and safety programs to comply with federal, state, and local regulatory requirements (e.g., California Code of Regulations). The following are some examples of programs designed to anticipate, recognize, evaluate and control hazards in the workplace and the environment that affect the health and safety of employees:

- Asbestos Management
- Blood borne Pathogens
- Confined Spaces
- Hazard Communication
- Ergonomics
- Lead Management
- Hearing Conservation
- Respiratory Protection
- Personal Protective Equipment (PPE)
- High Voltage Awareness
- *Compressed Natural Gas (CNG)
- *System-wide Hazardous Materials Emergency Response

*Not covered under OSHA Title 8 Employee Safety regulations.

Hazardous Materials Program

All Metro activities must comply with applicable federal (Title 3, Section 313), state, and local environmental protection laws. Procedures have been established in order to control hazards associated with procurement, storage, transfer, use, and disposal of hazardous substances. Methods used in this process include product and substance evaluations, procurement procedures, monitoring, testing, inspections, and training. These procedures also address record keeping and reporting requirements. Hazardous Material Business plans are developed for each facility and must comply with Code of Federal Regulations Title 40, Part 372.

The Corporate Safety Department develops and implements the Occupational Environmental Health & Safety (OEHS) Plans & Programs. In particular, they assure that the program complies with federal, state, and local regulatory requirements. The Hazard Communication Program (one of the Occupational Environmental Health & Safety Plans and Programs) has been designed to help maintain a healthy work environment by increasing employee awareness of workplace chemicals and their potential health effects, safe work practices and emergency procedures. This program affects all departments that buy, store, handle and/or use hazardous substances.

The Corporate Safety Department has the following role:

- Advise all departments within Metro, on a need to know basis, of all mandated environmental and safety rules and regulations as they pertain to operations.
- Conduct Hazard Communication Program training classes. All employees who work with chemicals are required to attend this training class.

The Quality Assurance Department has the following role:

- Monitor the collection and disposal of used oils, waste antifreeze, waste fuel, and waste water clarifier sludge to affect safe handling and minimize employee exposure to potentially hazardous and toxic by-products in the waste streams.
- Hazardous waste disposal
- Universal waste disposal

- Perform monthly environmental compliance review with the Hazardous Material coordinators of each facility.

Track Allocation/Work Permit Process

Prior to performing work on Metro's right-of-way, all contractor companies are required to attend the Track Allocation meeting, where approval for the work proposed to be conducted must be attained. Track Allocation determines if the work the contractor or employee proposes to perform necessitates any restrictions, and/or flagging, and/or reduced train speed. Regardless of whether the work is to be performed during revenue or non-revenue hours, all contractors or employees must follow the requirements of the Track Allocation Procedures administered by Rail Operations.

CPUC Safety Requirements

In addition to the above safety requirements, Metro rail employees are governed by various CPUC General Order requirements. The safety elements that are part of this PTASP are found in Appendix J.

Each Metro Departments' role in this function is to:

- Ensure that employees know and follow safety requirements
- Meet the safety requirements established in Rules and Procedures
- Distribute and display safety information, bulletins, notices, rule changes, posters, etc. in a manner that effectively communicates the information to employees
- Report any individuals who appear to be working unsafely along the right of way to the Rail Operations Control (ROC) Center

Corrective Action Plans

Metro complies with GO 164 series with regard to Corrective Action Plans (CAPs). The Corporate Safety Department is responsible for monitoring the completion of CAPs that are identified and providing appropriate updates to CPUC Staff in regards to status of and closure of each CAP.

CAPs may be developed as a result of:

1. Accident investigations as outlined in Appendix F

2. Recommendations contained in CPUC triennial review reports
3. Recommendations identified in Metro's own Internal Safety Review
4. CPUC inspection findings identified through CPUC inspection reports
5. Hazards identified by Metro through the Risk Management Process, when appropriate

In the event an emergency corrective action is required to ensure immediate safety, Metro may initiate the corrective action prior to receiving CAP approval from CPUC staff.

Rail Contractors

To help support the execution of this PTASP and the principles of SMS, contractors who work in Metro Rail Facilities and/or Operational Right-of-Way are provided a copy of the Safety Management Policy Statement for distribution to their employees.

Rail Contractors must notify their Metro-Employee escort of any hazards they identify prior to or during their work assignment. If the contractor(s) are not being escorted, they must inform a Metro Supervisor or Metro contractor liaison who will follow the Safety Risk Management Process outlined in §673.25. This process is communicated through training discussed in §673.29(a) Safety Training program.

Additionally, Metro Rail contractors working on the Right-of-Way without an escort provide FOFs in the form of Efficiency and Compliance (E&C) on their employees as prescribed in their respective contracts.

Bus Contractors

Metro requires Bus contractors providing bus operations service to the public and maintenance on the buses to create their own Agency Safety Plan in accordance with 49 CFR 673. Metro contract management staff, in coordination with Bus Corporate Safety Department staff, will review compliance with each contractor on a triennial basis.

Zero Tolerance Policy

Metro's Zero Tolerance policy for electronic devices is referenced in Metro's OPS-1 policy.

Other Regulatory References

Appendix K and Appendix L outline rule 49 CFR 673 and the National Public Transportation Safety Plan

Subpart E- Safety Plan Documentation and Recordkeeping

§673.31 SAFETY PLAN DOCUMENTATION

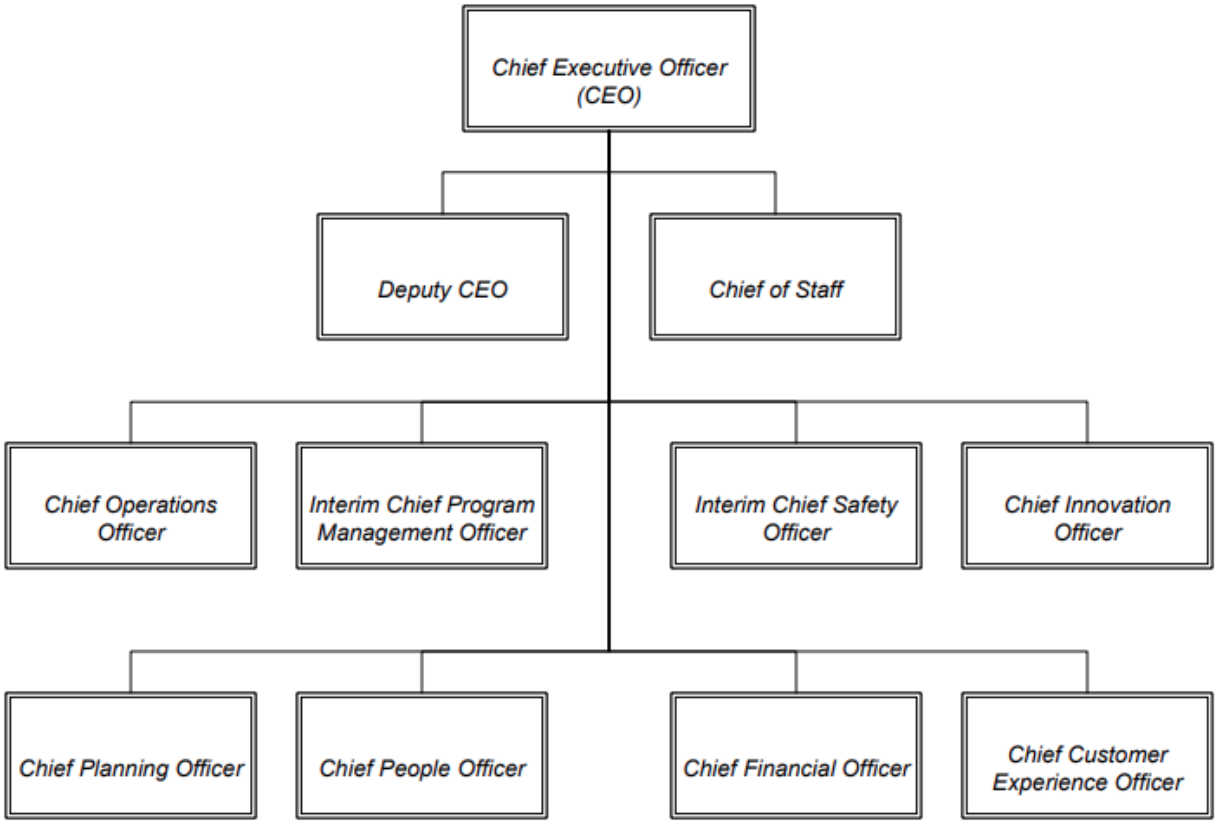
Metro will maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures used to carry out this PTASP for a minimum of three years or as required by CPUC or other State regulations. Compliance with the retention requirements is ensured through Metro's ISR Process.

PTASP documents will be made available upon request to the FTA or other Federal entity, or a State Safety Oversight Agency (SSOA) having jurisdiction. The Corporate Safety Department will be the primary point of contact when providing PTASP related information to external agencies.

Appendices

Appendix A: Metro Organization Chart

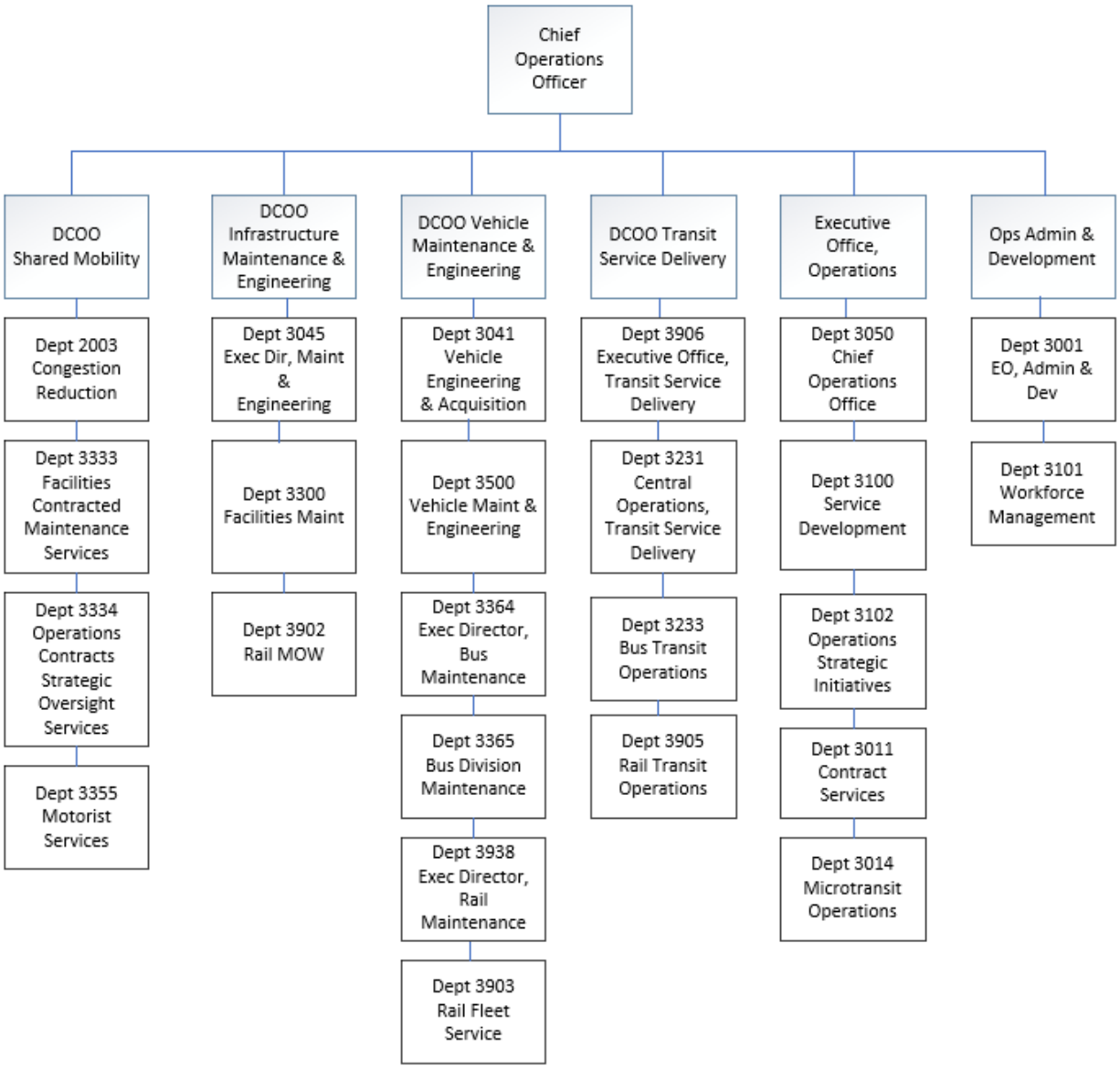
CEO Overview



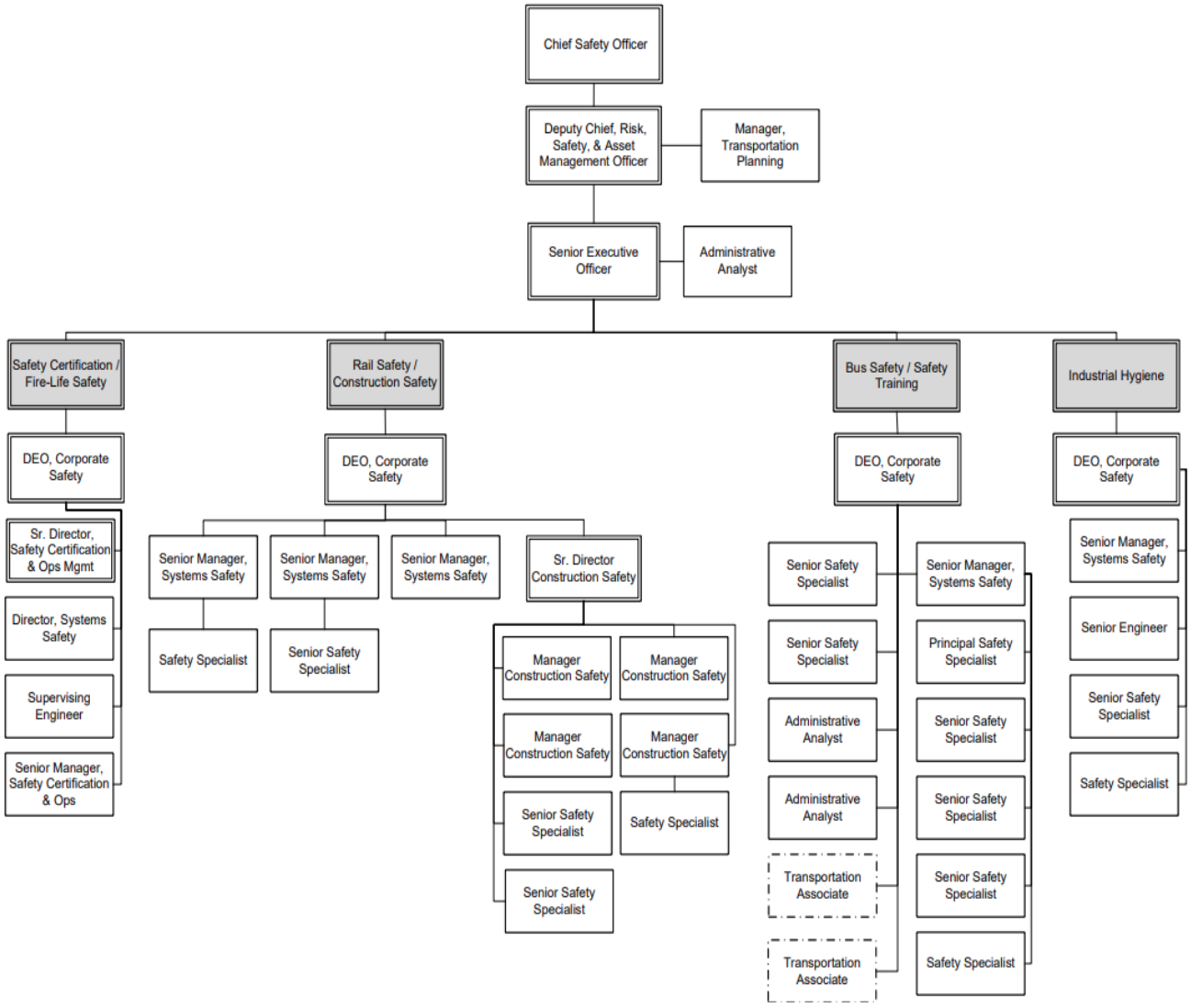
Appendix B: Operations and Maintenance Organization Chart

: Corporate Safety Organization Chart

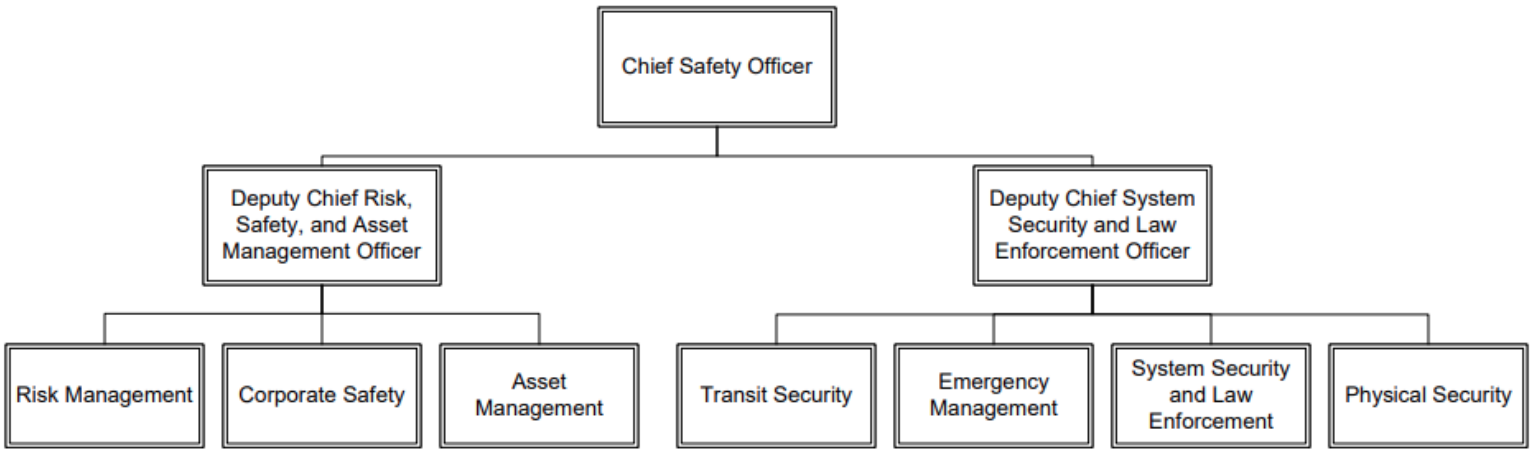
Operations


Chief Operations Officer
DCOO Shared Mobility
Dept 2003 Congestion Reduction
Dept 3333 Facilities Contracted Maintenance Services
Dept 3334 Operations Contracts Strategic Oversight Services
Dept 3355 Motorist Services
DCOO Infrastructure Maintenance & Engineering
Dept 3045 Exec Dir, Maint & Engineering
Dept 3300 Facilities Maint
Dept 3902 Rail MOW
DCOO Vehicle Maintenance & Engineering
Dept 3041 Vehicle Engineering & Acquisition
Dept 3500 Vehicle Maint & Engineering
Dept 3364 Exec Director, Bus Maintenance
Dept 3365 Bus Division Maintenance
Dept 3938 Exec Director, Rail Maintenance
Dept 3903 Rail Fleet Service
DCOO Transit Service Delivery
Dept 3906 Executive Office, Transit Service Delivery
Dept 3231 Central Operations, Transit Service Delivery
Dept 3233 Bus Transit Operations
Dept 3905 Rail Transit Operations
Executive Office, Operations
Dept 3050 Chief Operations Office
Dept 3100 Service Development
Dept 3102 Operations Strategic Initiatives
Dept 3011 Contract Services
Dept 3014 Microtransit Operations
Ops Admin & Development
Dept 3001 EO, Admin & Dev
Dept 3101 Workforce Management

Corporate Safety



Chief Safety Office



Appendix C: System Description

C.1 LOS ANGELES TRANSIT HISTORY

After decades of air pollution and traffic congestion, Los Angeles County voters recognized the need for improved public transportation, and they passed Proposition A, the half-percent sales tax for public transit in 1980. Thirty-five percent of the funds from this tax were allotted to the design, construction, and operation of a rail transit network.

In 1990, county voters approved another half-percent sales tax increase to speed construction of rail and highway projects. Known as Proposition C, this measure sets aside 40% of its funds for improved bus and rail transit.

In 2008 and again in 2016 county voters approved additional tax increased with Measure R and Measure M. Measure R is a half-cent sales tax for Los Angeles County to finance new transportation projects and programs and accelerate those already in the pipeline. The tax took effect July 2009. Measure R alone does not fully fund all projects. The Measure contains an Expenditure Plan that identifies the projects to be funded and additional fund sources that will be used to complete the projects. Measure M added an additional permanent half- percent sales tax increase and was passed with approximately 70% of the vote showing Los Angeles County taxpayers commitment to expanding public transportation efforts in and around Southern California.

C.2 SCOPE OF TRANSIT SERVICES

Metro provides public transportation services in the urbanized area of Los Angeles County and in parts of adjacent counties. It has approximately 9,800 employees in over 27 different physical locations to assist in the operation both bus and rail systems.

C.3 ORGANIZATIONAL STRUCTURE

Metro's organization structure is displayed in Appendix A.

C.4 RAIL MODE DESCRIPTION

C.4.1 Metro Rail Lines at a Glance

Rail Line	Length of System	Number of Stations	Maximum Speed	Station Design/Line Description
A Line Previously Blue Line (Light Rail) Los Angeles to Long Beach July 1990	22 miles	22	55 mph	There are 21 center-platform stations, partially roofed, open air structures with seating and one station with side platforms in the subway. The alignment consists of two street running segments and one cab-signaling segment. Shared stations with E Line.
B Line Previously Red Line Segment 1 January 1993	4.4 miles	5	70 mph	Runs through downtown Los Angeles between Union Station and Westlake/ MacArthur Park. It connects with commuter trains (Metrolink) at Union Station and Metro Blue Line at 7th Street/Metro Center Station. Shared stations with D Line.
D Line Previously Red Line Segment 2A July 1996	2.1 miles	3	70 mph	Extended from Westlake/MacArthur to Wilshire/Western. Shared stations with B Line.
B Line Previously Red Line Segment 2B June 1999	4.6 miles	5	70 mph	Turns northward under Vermont Avenue from Wilshire/Vermont Station to Hollywood/Vine Station

B Line Previously Red Line Segment 3 June 2000	6.3 miles	3	70 mph	Extended from Hollywood/Vine Station to North Hollywood Station.

Rail Line	**Length of System**	**Number of Stations**	**Maximum Speed**	**Station Design/Line Description**
C Line Previously Green Line (Light Rail) Norwalk to Redondo Beach August 1995	20 miles	14	65 mph	Operates primarily in the center of the Glenn Anderson (I-105) Freeway with fourteen platforms at freeway level. Five stations are elevated center platforms on an aerial guideway on the portion of the line away from the freeway.
A Line Previously Gold Line (Light Rail) Los Angeles to Pasadena July 2003	13.7 miles	13	55 mph	The alignment consists of both cab signaling and street running segments. 12 stations are at-grade and one station is partially underground. There are 5 side-platforms and 8 center-platforms. Shared stations with E Line.
E Line Previously Gold Line Eastside Extension (Light Rail) Los Angeles to East LA November 2009	6 miles	8	55 mph	Connects the Eastside to Downtown LA and Pasadena. There are 6 at-grade center-platforms and 2 subway stations. The 6 at-grade stations are partially roofed with open air structures and seating. Shared stations with A Line.

A Line Previously Gold Line Foothill Extension (Light Rail) Pasadena to Azusa (Phase 2A) March 2016	11 miles	6	55 mph	Phase 2A Foothill Extension Line connects Pasadena to Azusa. The alignment will consist of at-grade street running segments and cab-signaling segments.
E Line Previously Exposition Line (Phase 1) April 2012	8.6 miles	10	55 mph	Phase 1 connects Downtown to Culver City. The alignment consists of at-grade street running segments, cab- signaling segments, and aerial guide ways. Phase 1 has 10 stations, three of which are aerial.

Rail Line	**Length of System**	**Number of Stations**	**Maximum Speed**	**Station Design/Line Description**
E Line Previously Exposition Line (Phase 2) May 2016	6.6 miles	7	55 mph	Phase 2 of the Exposition Line connects Culver City with Santa Monica. The alignment consists of at-grade street running segments, cab- signaling segments, and 5 aerial guide ways.

K Line Previously Crenshaw Line 2022	8.5 miles	9	65 mph	The Crenshaw Project will run between the E Line on Exposition Blvd. and the Metro C Line. The alignment will consist of aerial, below-grade, and at grade stations. The initial segment, which opened in 2022, will operate between the Crenshaw station and the Westchester/Veterans station and includes 7 stations. The second segment, which is scheduled to open in Fall 2023, will extend the line to the Aviation/Imperial (LAX) station on the C Line which will be the 8th station. The AMC station, is scheduled to open in late 2024 and will be the 9th station.
Regional Connector	1.9 miles	3	55 mph	The Regional Connector is a light rail subway corridor through Downtown Los Angeles to connect the Blue and Gold Lines.
Totals	115.7 miles	108		

Future Lines Under Construction	**Length of Systems**	**Number of Stations**	**Maximum Speed**	**Station Design**
Purple Line Extension (PLE1)	3.92 miles	3	70 mph	The first section between Wilshire/Western and Wilshire/La Cienega is now under construction and is scheduled for completion in 2024.

PLE2	2.59 miles	2	70 mph	Section 2 of the Purple Line Extension Project will extend the subway to downtown Beverly Hills and Century City. Section 2 is also currently under construction and is scheduled for completion in 2025.
PLE3	2.56 miles	2	70 mph	Section 3 will then extend the project to two stations in Westwood. Currently, the project is anticipated to open for operations in 2027.
Gold Line Foothill Extension (Light Rail) Azusa to Pomona (Phase 2B)	9.1 miles	4	55 mph	Phase 2B Foothill extension will extend the Gold Line from the Azusa station to the Pomona station, with stations in Glendora, San Dimas, La Verne, and Pomona. The alignment will consist of cab signaling and aerial segments. A future extension to Montclair is being planned and will be built once funding is secured.

C.4.2 METRO RAIL SAFETY FEATURES

Automatic Train Control (ATC)

This system automatically controls train movement, enforces train safety, and directs train operations. Automatic train control includes the subsystems of automatic train operation, automatic train protection, and automatic train supervision.
(B, C, D Lines)

Automatic Train Protection (ATP)

This system maintains safe train operation through a combination of train detection, train separation, and speed limit enforcement.
(A,B, C, D, E, K, L Lines)

Automatic Train Operation (ATO)

This system performs any or all of the functions of speed regulation, programmed stopping, door control, performance level regulation, and other functions normally assigned to the train operator.
(B, C, D, Lines)

Automatic Train Supervision (ATS)
This monitors the system status and provides the appropriate controls to direct the operation of trains in order to maintain intended traffic patterns and minimize the effect of train delays on the operating schedule.
(B, C, D, Lines)

Local Control Panel (LCP)
This control panel is located in train control rooms/buildings along the right-of-way. The Local Control Panel performs control and indication functions for the signals and switches at the interlockings.
(A,B, C, D, E, K, L Lines)

Grade Crossing Warning System
Devices placed at grade crossings to warn motorists and pedestrians of on-coming trains.
(A, E, K, L Lines)

Four Quad Gates
Consists of two exit gates used in combination with standard entrance gates. The additional gate arms, combined with standard entrance gates, restrict access to the track crossing area.
(A, E, K, L Lines)

Train to Wayside Communication (TWC)
Using the TWC system, the train operator has the ability to control and activate certain switches, crossovers, and/or grade crossing warning devices.
(A,B, D, E, K, L Lines)

In-cab cameras
All Metro rail cars are equipped with in-cab cameras which assist in accident investigation, rules violations, and customer complaints.

C.4.3 RAIL FLEET

Car Manufacturer	Breda (Heavy) (A650)	Siemens (P2000)	Breda (Light) (P2550)	Kinki Sharyo (P3010)	CRRC (HR4000)
No. of cars in fleet	100	52	50	235	64
Car length	75 feet	89 feet	90 feet	89 feet	75’
Car width	10 feet, 4 inches	8.7 feet	9 feet, 10 inches	8.7 feet	10’4”
Car height	12 feet, 7 inches	12 feet, 6 inches	12 feet, 6 inches	12 feet 6 inches	12’5” with antenna
Car weight (empty)	80,000 lbs.	98,043 lbs.	110,000 lbs.	99,000 lbs.	83,500 lbs.
Passenger capacity, seated	59 (1 wheelchair space)	76	76	68	48
Maximum speed	70 mph	65 mph	55 mph	65 mph	70 mph

C.5 BUS MODE DESCRIPTION

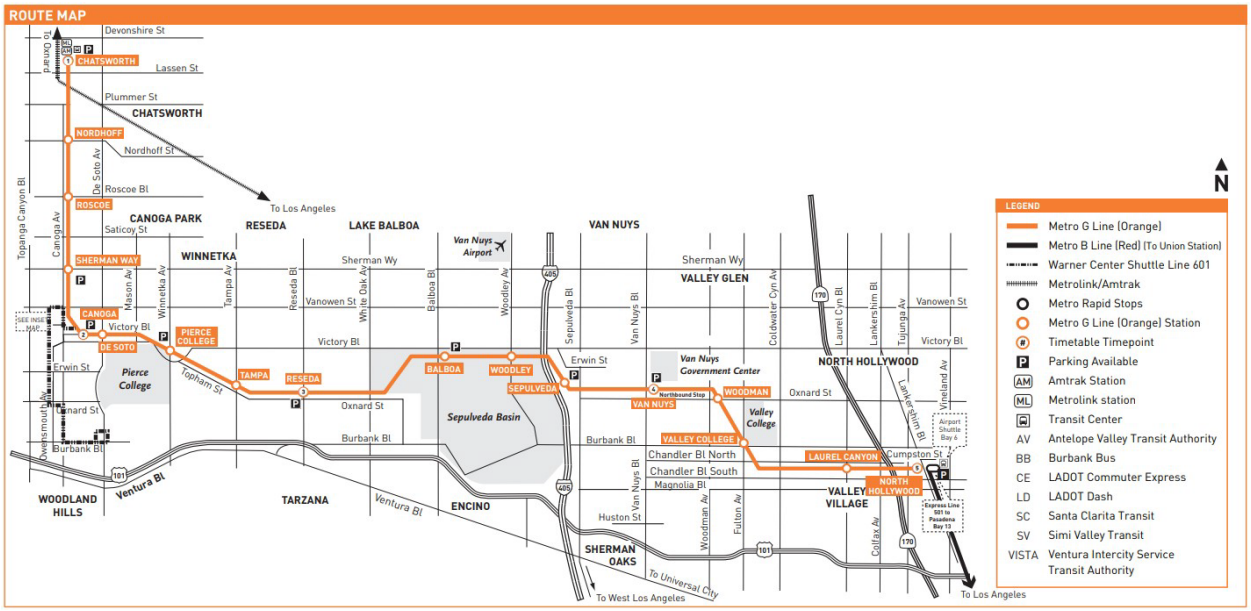
C.5.1 Metro Bus Lines at a Glance

- 11,980 Bus Stops
- 120 Bus Routes
- 2,300 Bus fleet

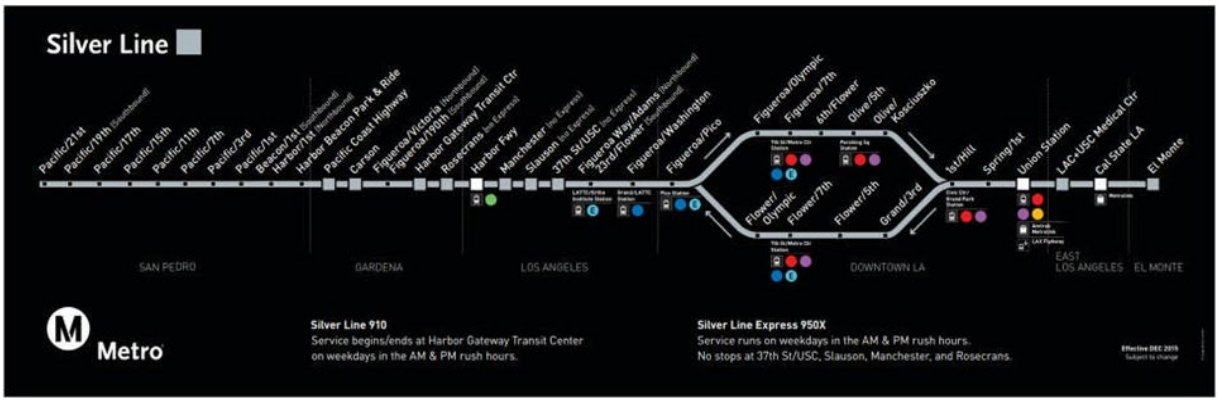
Bus Lines	**Length of System**	**Number of Stations**	**Route(s) Description**
Orange Line BRT (G Line)	18 miles	17	Metro Orange Line buses operate between North Hollywood and Chatsworth 24 hours a day. At peak hours (between 6 am and 7pm eastbound, 5 am and 6 pm westbound), alternate buses run only between North Hollywood and Canoga Station. Passengers can transfer at Canoga to a shuttle bus that serves the Warner Center area.

Silver Line BRT (J Line)	38 miles	11	Two services are operated under the Silver Line name: • **Route 910** operates with daily 24-hour service serving only the portion of the route between El Monte station, Downtown Los Angeles and the Harbor Gateway Transit Center. • **Route 950** operates with daily service serving the entire route between El Monte station, Downtown Los Angeles and San Pedro.
NoHo to Pasadena BRT (Future Route)	18	21-22	The North Hollywood to Pasadena BRT Project will operate between the North Hollywood Metro Red/Orange Line Station to Pasadena City College at Hill Street and Pasadena. Hoping to get dedicated lanes between the Red/Orange Line Station and the Memorial Park Station and operate in mixed flow along Colorado in Pasadena to PCC.
Vermont BRT (Future Line)	12.4 Miles	9 to 10	The Vermont BRT Project will operate between Hollywood Blvd and 120th Street. We are looking at both side and combo side and center running BRT with dedicated lanes and enhanced stations with a number of passenger amenities.

C.5.3 METRO ORANGE (G) LINE ROUTE MAP



C.5.4 METRO SILVER (J) LINE ROUTE MAP



C.5.5 METRO LOCAL

Metro Local buses are painted in an off-orange color which the agency has dubbed "California Poppy". This type of service makes frequent stops along major thoroughfares. As at 2024, we have 11,980 stops served by 120 bus lines (including local, Metro Rapid, Metro G Line (Orange) and J Line (Silver), express, and shuttle services). Some Metro Local routes make limited stops along part of their trip but do not participate in the Rapid program. Some Metro Local bus lines are operated by contractors MV Transportation, Southland Transit, and Transdev. Metro Local buses cover both local, limited-stop, and shuttle bus services.

Metro Local buses can also be found on 400-series (4xx) and 500-series (5xx) routes.

C.5.6 METRO RAPID

Metro Rapid buses are distinguished by their bright red color which the agency has dubbed "Rapid Red". Metro Rapid service operates on three of Metro's most heavily utilized bus services (Line 720 – Wilshire Bl, Line 754 – Vermont Av, Line 761 Van Nuys Bl – Westside)..

To improve bus speeds, the Metro Rapid Program was introduced in June 2000. Through system integration of bus signal priority and fewer stops, passenger travel times have been reduced by as much as 29%. As a result, ridership increased up to 40% in the two demonstration corridors, with one-third of the ridership increase consisting of new riders who have never before ridden transit.

Key Metro Rapid Attributes:

- Simple route layout: Makes it easy to find, use and remember.
- Frequent service: Buses arrive as often as every 3-10 minutes during peak commuting times.
- Fewer stops: Stops spaced about ¾ of a mile apart at most major transfer points.
- Bus priority at traffic signals: New technology reduces traffic delay by extending the green light or shortening the red light to help Metro Rapid get through intersections.
- Color-coded buses: Metro Rapid's distinctive red paint makes it easy to identify Metro Rapid buses.
- Enhanced stations: Metro Rapid stations have a very distinct design that includes passenger information and lighting.

C.5.7 METRO EXPRESS

Metro Express buses are routes designed as, minimal stop services along Los Angeles's extensive freeway network. There are 6 lines running as of 2024: 460, 487, 489, 501, 550, and 577.

C.5.8 BUS FLEET

Bus Manufacturer	Fuel Type	No. of busses in fleet	Bus length	Passenger capacity, seated
BYD	Electric	5	40 feet	38
BYD	Electric	5	60 feet	55
Eldorado National	CNG	554	40 feet	38
NABI	CNG	29	32 feet	25
NABI	CNG	300	45 feet	46
NABI	CNG	1	40 feet	35
NABI	CNG	95	60 feet	55
New Flyer	CNG	40	60 feet	55
New Flyer	CNG	900	40 feet	39
New Flyer	Electric	135	60feet	55
Grand Total		2,064		

The Metro bus fleet (as of October 2022) consists of buses of various makes and models.

All buses in the fleet have wheelchair lifts or ramps, and Metro has purchased 45-foot Composite buses, and 60-foot articulated buses for the dedicated “Orange Line” busway as well as use on regular and rapid routes. Metro has over 2,162 buses in service on an average weekday.

C.5.9 METRO BUS SAFETY FEATURES

In addition to safety features required by Federal Motor Vehicle Safety Standards, Metro includes safety features in its bus procurement specifications as a means of increasing customer and operational safety.

SMARTDRIVE:

The SmartDrive is g-force based video monitoring utility. When an event on a bus reaches a threshold, the SmartDrive system records video footage. There are four types of events that are triggered and recorded by the SmartRecorder for use in the Measured Safety Program: Erratic, Shock, Speeding, and Manual. Erratic Events are characterized as Moving Events. They are triggered by sustained forces from multiple directions (front/back, left/right, and up/down) over relatively long periods of time (typically between 0.25 and 1.5 seconds) as

measured by an accelerometer in the SmartRecorder.

- Erratic Events: These capture risky driving maneuvers such as hard braking, acceleration, turning, swerving, speed bumps, dips in the road, etc. Shock Events are also characterized as Moving Events. They are triggered by sudden changes in force in any direction as measured by an accelerometer in the SmartRecorder.
- Shock Events: These have a higher likelihood of recording Collisions, but they can also be triggered by other actions that involve sudden changes in forces such as when a vehicle hits a pothole or a bump at high speed.
- Speeding Events: These are characterized as Moving Events. They are triggered when the vehicle speed exceeds a specified threshold. For example, if the threshold is set for 70 mph then the SmartRecorder will record a Speeding Event when the vehicle speed exceeds 70 mph. To balance the number of Speeding Events that may be recorded at any given time, the SmartRecorder will only record one Speeding Event within a 30-minute timeframe.
- Manual Events Unlike the other three event types, manual events are not Moving Events. They are triggered when the driver or other occupant of the vehicle presses the manual trigger button on the SmartRecorder or on the keypad. Manual Events enable Operators to record Videos which contain actions of interest that are not necessarily related to risky driving.

OPERATOR BARRIERS

In 2013 Metro began the process of retrofitting buses with a steel and polycarbonate barrier that protects the driver from assault. All busses are equipped with these barriers, and all future busses will also come equipped with such barriers.

COLLISION AVOIDANCE TECHNOLOGY

Metro is undergoing a pilot program to implement and audible/visual system to help to mitigate collisions with both automobiles and pedestrians.

Appendix D: Safety Performance Measures and Performance Targets

FY25 TARGETS BASED ON 3-YEAR AVERAGE OF NATIONAL TRANSIT DATABASE (NTD)

*FY25 Targets reflect a 10% improvement over the 3-year average of NTD Data
**Federal Requirement to Report Transit Worker Assaults began April 2023
***Mean Miles Between Mechanical Failures is based on Fiscal Year Data

VRM – Vehicle Revenue Miles
MB – Motor Bus
RB – Rapid Bus
HR – Heavy Rail
LR – Light Rail
DO – Direct Operation

Methodology

The FY25 safety performance targets shown below were calculated based on a 3-year average of NTD CY2021, CY2022 and CY2023 data, except for the MMBMF FY25 safety targets. The MMBMF FY25 safety performance targets was calculated based on Fiscal Year Data because NTD calculates MMBMF using Fiscal Year Data. The reason we had to use Calendar Years for the safety performance measures is because NTD compiles their safety and security data based on Calendar Years and not Fiscal Years, with the exception of MMBMF. Therefore, the Metro Safety KPI Targets for FY25 are based on a three-year average of the most recent NTD Calendar-Year data.

BUS (MB DO and RB DO modes)	CY 2021 NTD	CY 2022 NTD	CY 2023 NTD	AVERAGE	FY25 TARGETS*
Bus VRM	56,196,658	58,254,813	65,451,196	59,967,556	
Bus Major Safety Events (S&S-40s)	**67**	**87**	**109**	**88**	**79**
Bus Major Safety Events Rate	0.12	0.15	0.17	0.15	0.13
Bus Major Security Events (S&S-40s)	**33**	**50**	**56**	**46**	**42**
Bus Major Security Events Rate	0.06	0.09	0.09	0.08	0.07
Total # of Collisions	**66**	**85**	**102**	**84**	**76**
Collision Rate (All Collisions/100K VRM)	0.12	0.15	0.16	0.14	0.13
Total # of Pedestrian Collisions	**20**	**18**	**26**	**21**	**19**
Pedestrian Collision Rate (Bus vs Person Collisions/100K VRM)	0.04	0.03	0.04	0.04	0.03
Total # of Vehicular Collisions	**46**	**67**	**76**	**63**	**57**
Vehicular Collision Rate (Bus vs Motorist Collisions/100K VRM)	0.08	0.12	0.12	0.11	0.09

BUS (MB DO and RB DO modes)	CY 2021 NTD	CY 2022 NTD	CY 2023 NTD	AVERAGE	FY25 TARGETS*
Fatalities (all Fatalities resulting from Safety and Security Events)	**2**	**4**	**5**	**4**	**0**
Fatalities Rate	0.00	0.01	0.01	0.01	0.00
Total # of Transit Worker Fatalities	**0**	**0**	**0**	**0**	**0**
Transit Worker Fatalities Rate	0.00	0.00	0.00	0.00	0.00
Bus Safety Injuries (Major and Non-Major Injuries)	**237**	**317**	**392**	**315**	**284**
Bus Safety Injury Rate	0.42	0.54	0.60	0.53	0.47
Bus Security Injuries (Major and Non-Major Injuries)	**33**	**50**	**19**	**34**	**31**
Bus Security Injury Rate	0.06	0.09	0.03	0.06	0.05
Total # of Transit Worker Injuries (Major and Non-Major Safety Injuries)	**16**	**12**	**22**	**17**	**15**
Transit Worker Injury Rate (All Transit Worker Injuries/100K VRM)	0.03	0.02	0.03	0.03	0.03
Assaults on Transit Workers (Major and Non-Major Assaults Total)**	**--**	**--**	**1016**	**1016**	**914**
Rate of Assaults on Transit Workers	--	--	1.55	1.69	1.52
Bus Reliability MMBMF***	FY 2021 NTD	FY 2022 NTD	FY 2024 NTD	AVERAGE	FY25 TARGETS**
	9,759	10,324	pending	10,041	11,045

RAIL (LR DO)	CY 2021 NTD	CY 2022 NTD	CY 2023 NTD	AVERAGE	FY25 TARGETS*
Rail VRM	12,774,353	14,110,783	16,169,610	14,351,582	
Rail Major Safety Events (S&S-40s)	**45**	**52**	**66**	**54**	**49**
Rail Major Safety Events Rate	0.35	0.37	0.41	0.38	0.34
Rail Major Security Events (S&S-40s)	**43**	**53**	**64**	**53**	**48**
Rail Major Security Events Rate	0.34	0.38	0.40	0.37	0.33
Total # of Collisions	**43**	**50**	**64**	**52**	**47**
Collision Rate (All Collisions/100K VRM)	0.34	0.35	0.40	0.36	0.33
Total # of Pedestrian Collisions	**17**	**19**	**25**	**20**	**18**
Pedestrian Collision Rate (Rail vs Person Collisions/100K VRM)	0.13	0.13	0.15	0.14	0.13
Total # of Vehicular Collisions	**26**	**31**	**39**	**32**	**29**
Vehicular Collision Rate (Rail vs Motorist Collisions/100K VRM)	0.20	0.22	0.24	0.22	0.20
Fatalities (all Fatalities resulting from Safety and Security Events)	**6**	**10**	**12**	**9**	**0**
Fatalities Rate	0.05	0.07	0.07	0.07	0.00
Total # of Transit Worker Fatalities	**0**	**0**	**0**	**0**	**0**
Transit Worker Fatalities Rate	0.00	0.00	0.00	0.00	0.00
Rail Safety Injuries (Major and Non-Major Injuries)	**24**	**24**	**78**	**42**	**38**
Rail Safety Injury Rate	0.19	0.17	0.48	0.29	0.26
Rail Security Injuries (Major and Non-Major Injuries)	**43**	**53**	**27**	**41**	**37**

RAIL (LR DO)	CY 2021 NTD	CY 2022 NTD	CY 2023 NTD	AVERAGE	FY25 TARGETS*
Rail Security Injury Rate	0.34	0.38	0.17	0.29	0.26
Total # of Transit Worker Injuries (Major and Non-Major Safety Injuries)	**3**	**1**	**15**	**6**	**6**
Transit Worker Injury Rate (All Transit Worker Injuries/100K VRM)	0.02	0.01	0.09	0.04	0.04
Assaults on Transit Workers (Major and Non-Major Assaults Total)**	**--**	**--**	**21**	**21**	**19**
Rate of Assaults on Transit Workers	--	--	0.13	0.15	0.13
Rail Reliability MMBMF***	FY 2021 NTD	FY 2022 NTD	FY 2024 NTD	AVERAGE	FY25 TARGETS**
	49,925	52,827	pending	51,376	56,514

RAIL (HR DO)	CY 2021 NTD	CY 2022 NTD	CY 2023 NTD	AVERAGE	FY25 TARGETS*
Rail VRM	6,011,706	6,328,980	5,634,656	5,991,781	
Rail Major Safety Events (S&S-40s)	**12**	**6**	**4**	**7**	**7**
Rail Major Safety Events Rate	0.20	0.09	0.07	0.12	0.11
Rail Major Security Events (S&S-40s)	**17**	**14**	**19**	**17**	**15**
Rail Major Security Events Rate	0.28	0.22	0.34	0.28	0.25
Total # of Collisions	**10**	**2**	**1**	**4**	**4**
Collision Rate (All Collisions/100K VRM)	0.17	0.03	0.02	0.07	0.07
Total # of Pedestrian Collisions	**10**	**2**	**1**	**4**	**4**
Pedestrian Collision Rate (Rail vs Person Collisions/100K VRM)	0.17	0.03	0.02	0.07	0.07
Total # of Vehicular Collisions	**0**	**0**	**0**	**0**	**0**
Vehicular Collision Rate (Rail vs Motorist Collisions/100K VRM)	0.00	0.00	0.00	0.00	0.00
Fatalities (all Fatalities resulting from Safety and Security Events)	**9**	**1**	**2**	**4**	**0**
Fatalities Rate	0.15	0.02	0.04	0.07	0.00
Total # of Transit Worker Fatalities	**0**	**0**	**0**	**0**	**0**
Transit Worker Fatalities Rate	0.00	0.00	0.00	0.00	0.00
Rail Safety Injuries (Major and Non-Major Injuries)	**31**	**19**	**77**	**42**	**38**
Rail Safety Injury Rate	0.52	0.30	1.37	0.71	0.64
Rail Security Injuries (Major and Non-Major Injuries)	**17**	**14**	**9**	**13**	**12**

RAIL (HR DO)	CY 2021 NTD	CY 2022 NTD	CY 2023 NTD	AVERAGE	FY25 TARGETS*
Rail Security Injury Rate	0.28	0.22	0.16	0.22	0.20
Total # of Transit Worker Injuries (Major and Non-Major Safety Injuries)	**3**	**0**	**0**	**1**	**1**
Transit Worker Injury Rate (All Transit Worker Injuries/100K VRM)	0.05	0.00	0.00	0.02	0.02
Assaults on Transit Workers (Major and Non-Major Assaults Total)**	**--**	**--**	**24**	**24**	**22**
Rate of Assaults on Transit Workers	--	--	0.43	0.40	0.36
Rail Reliability MMBMF***	FY 2021 NTD	FY 2022 NTD	FY 2024 NTD	AVERAGE	FY25 TARGETS**
	60,935	68,312	pending	64,624	71,086

Appendix E: Operations and Maintenance Department

Per the organization chart as seen in Appendix B, the department head of Operations is responsible for ensuring the overall safety for Metro Rail and Bus system.

The department head of Operations:

- Directs the utilization of resources available to departments within Operations for the Bus and Rail modes.
- Provides direction and support to all transit operations functions to ensure attainment of Metro and departmental objectives within established policies and parameters
- Coordinates activities within transit operations to assure peak performance and productivity, as well as conformance with established or mandated external regulations and policies affecting Metro operations
- Develops and implements strategic business plans focusing on transportation needs in cooperation and coordination with all Metro departments involved in regional decisions
- Provides counsel to the CEO on significant matters affecting Metro transit operations and policies
- Creates Metro's safety vision; approves and adopts the agency's safety rules, policies, and procedures; communicates safety expectations; and maintains accountability for the safety performance of the entire agency
- Assists the CEO in developing and implementing short-range and long-range goals and business plans
- Formulates policy recommendations for the Board of Directors, attends Board meetings, and advises Board

E.1 METRO RAIL MODE

Per the organization chart as seen in Appendix B, the department head is responsible for ensuring the overall safety for Metro Rail Operations. The Rail Operations Department and Management staff (Transportation, RFS, & Wayside Systems) are responsible for implementing the requirements as outlined in this PTASP including training requirements of all Rail Maintenance Supervisors and other Rail Maintenance employees, Rail Wayside employees, Rail Facilities and Custodial personnel, Rail Transit Operations Supervisors (Rail TOS's), ROC Controllers (Train and Communication Controllers), Train Operators, Contractors, and emergency response personnel as required to ensure compliance with Standard Operating Procedures (SOPs).

E.1.1 RAIL TRANSPORTATION

The Senior Executive Officer of Transportation oversees all the rail transportation divisions, field operations, Rail Transportation Instruction department, ROC, and is responsible for the following activities:

- Develop operating rules and procedures
- Implement changes in rules and procedures by issuing bulletins and notices to Train Operators
- Develop and maintain rail system emergency preparedness and response for rail facilities
- Maintain certification and re-certification requirements as outlined in the training matrix found in Appendix H
- Oversee the activities of the Rail Operating and Maintenance Divisions.
- Develop and oversee implementation of the Efficiency Testing Program
- Comply with Metro's System Modification Procedure (CF15)

E.1.1.1 Rail Transportation Divisions

The department head of each Transportation Division has the following responsibilities:

- Manage day-to-day operations at the Division, monitor train operators' in- service operation; communicate safety messages to Train Operators; investigate accidents and occupational injuries; take corrective actions to prevent or mitigate recurrences including discipline and counseling; inspect facilities; and maintain safety records at the division
- Ensure Train Operators have the required licenses and up-to-date medical certificates; operators receive training, and re-training
- Take appropriate action(s) to resolve reported or otherwise identified hazards and near-miss incidents as required under the Hazard Management Program
- Oversee the performance of Rail Transit Operations Supervisors as Line Supervisors, and Yard Controllers
- Interact with the Instruction Management team
- Oversee the Rail Transit Operations Supervisors' Investigation of rail system operational incidents, injuries and property losses
- Schedule and conduct the required annual emergency drills

E.1.1.2 Rail Operations Control (ROC)

The ROC monitors and controls Metro rail operations for all rail lines. Operations include train control, traction power, fire-life safety systems, communications, issuance of train orders, operating clearances and/work permits for mainline maintenance work. This facility also has emergency operations functions that include monitoring of warnings and alarms through the Supervisory Control and Data Acquisition (SCADA) system, and control of ventilation systems that evacuate smoke and gases from tunnels. SCADA monitors or controls virtually all the subsystems on the rail systems. The ROC is staffed twenty-four hours per day, seven days per week.

The department head of ROC is responsible for overall supervision of the ROC staff, who are responsible for monitoring and authorizing train movement and Closed-Circuit Television operations. The Closed-Circuit Television staff monitors and reports on issues such as platform congestion, vandalism, safety, and security problems.

The department head of ROC is responsible for the following activities:

- Oversees the activities of Rail Controllers, Rail Controller Instructors and Closed-Circuit Television staff
- Ensures Rail Controllers have the required licenses, up-to-date medical certificates, training, and re-training
- Implements changes in procedures by issuing bulletins and notices to the Controllers
- Develops and maintains rail system emergency preparedness and response plan for the ROC

E.1.1.3 Rail Transportation Instruction

The Rail Transportation Instruction department is responsible for delivering and administering comprehensive instruction to trainees. In addition, the department ensures that all employees, contractors, and outside agencies demonstrate and maintain a satisfactory level of job knowledge and performance in keeping with Metro's standards of operation. Training responsibilities include:

- Oversees operating rules and procedures
  - Development
  - Implementation of changes

- Oversees training lesson plan development and implementation
  - New Hire Rail Operator Training

- New Hire Rail Transportation Operation Supervisor (RTOS) Training
- Line Instructor Training
- Rail Safety / Wayside Worker Protection (WWP) Training
- Retraining / Return to Work Training
- Familiarization Training / Training for Change
- Certification / Re-certification

- Takes corrective actions as necessary to prevent or mitigate recurrences of incidents, accident or occupational injuries.
  - Post-Accident/Incident Training
  - Refresher Training
  - Efficiency Testing
  - Performs observation checks on assigned personnel and evaluates their performance, including safety behaviors, and any need for further instruction
  - Supports investigations of incidents and accidents as necessary

E.1.2 RAIL FLEET SERVICES (RFS)

The department head of Rail Fleet Services oversees RFS. The RFS Shops are where vehicle inspections and maintenance for the entire fleet occurs. The RFS Department is split into two groups. The first group, RFS, is responsible for meeting daily rollout and for maintenance and repair of both light and heavy railcar fleets. The second group, Rail Vehicle Engineering, is responsible for quality assurance/ warranty, fleet engineering, and the overhaul programs.

E.1.2.1 Rail Fleet Service Shops

The RFS Shops are tasked with providing a safe and mechanically reliable fleet of rail cars. RFS utilizes preventative maintenance programs that include performing maintenance on vehicles at regularly scheduled mileage intervals. The intent is to maintain vehicles in a condition compatible with the highest safety, dependability, and appearance standards. Well-designed preventative maintenance procedures, and enforcement of these procedures, ensure the highest possible reliability of the rail vehicles.

The scheduled preventative maintenance programs attempt to identify problem areas before they require unscheduled corrective maintenance. Therefore, reporting requirements are developed for each inspection procedure to support future preventative maintenance activities as well as effectively communicate the specific need for corrective maintenance. The flow of information between preventative and corrective maintenance activities is critical to the success of both types of Maintenance.

Records of all preventative maintenance actions are documented in the Maintenance Management System database. The preventative maintenance programs include the following:

- Inspection - All rail vehicles are subjected to a periodic inspection program (based on accumulated mileage) to determine if conditions exist that require a maintenance action. The level and frequency of inspections is consistent with contractor and supplier recommendations, industry standards, the safety-criticality of the equipment, and operational experience.

- Servicing - Servicing consists of regularly scheduled activities that are necessary to maintain the performance of the vehicle and its components. These activities include lubrication and adjustment, but they also may involve the replacement of consumables such as air filters. Equipment manufacturers provide recommended servicing schedules in their maintenance manuals. Although manufacturer recommendations will be followed during the warranty period of rail vehicles, servicing schedules may subsequently be modified to suit the operating conditions of each particular rail system.

For planning purposes, the preventative maintenance of rail vehicles is performed on the basis of miles of operation in accordance with the RFS Maintenance Plan. RFS functions include:

- Conduct prescribed inspections of the rail vehicles in the manner specified by the RFS Maintenance Plan
- Conduct non-scheduled maintenance and inspections
- Develop equipment overhaul specification for all fleets supporting Procurement/Vendor Contract Management Department throughout bid process
- Provide project management for railcar overhaul programs
- Perform failure analyses, as necessary, to determine the cause(s) of failures and recommend corrective action
- Develop and update maintenance rules and procedures as necessary
- Inspect trains involved in accidents for compliance with all maintenance and operational specifications related to safe operation, e.g., horn functionality, brakes, etc. Place a "hold" on equipment if there is evidence of a system being in a condition outside of its normal & safe operating capability
- Ensure Rail Equipment personnel have been trained and have the required licenses and/or certification
- Train personnel in injury and illness prevention, emergency procedures, and safe vehicle operation; communicate safety messages to personnel; investigate occupational injuries; take corrective actions to prevent or mitigate recurrences

including discipline and counseling; investigate reports of unsafe conditions; inspect facilities; and maintain safety records at the facility
- Perform and document random checks of completed maintenance activities at the various mileage intervals
- Comply with Metro's System Modification Procedure (CF15)

E.1.2.2 Rail Vehicle Engineering

The Rail Vehicle Engineering Department's functions include:

- Provide engineering support to both light and heavy railcar fleets in matters other than normal maintenance activities
- Develop test and modification bulletins for all fleets and coordinate with affected departments on these modifications

The quality assurance functions that are performed include the following:

- Perform quality assurance and warranty support activities as necessary to ensure equipment and maintenance activities comply with approved procedures and are being followed
- Inspect all new rail equipment to ensure compliance with all technical, operational and contractual requirements
- Provide quality assurance and warranty inspection on new, rebuilt and overhauled parts and components to ensure compliance with all technical requirements and good manufacturing practices
- Monitor new equipment test programs for functionality, maintainability and safety

E.1.3 WAYSIDE SYSTEMS

The department head of Wayside Systems oversees the activities of Track Maintenance, Traction Power, Signal, Rail Communications and Supervisory Control and Data Acquisition (SCADA) Engineering, and Rail Facility Maintenance and Custodial Services.

All maintenance is performed in accordance with the Wayside Systems Maintenance Plans for each discipline. Manufacturers recommendations, Federal regulations, Industry Standards, and operational experience were used as guidelines in developing the maintenance plans.

E.1.3.1 Track Maintenance

CPUC GO 143-B, Section 14.05, requires the establishment of a track inspection and maintenance program. All rail system tracks will be inspected and maintained in accordance with CPUC General Order 143-B, Section 14.05. All design and construction will be done using the American Railway Engineering and Maintenance of Way Association Manual as a guideline, as required by CPUC GO 143-B, Section 9.01.

Frequent track inspection is performed to identify potential safety hazards and to report on the changing conditions of track geometry. Main line track is inspected twice each week with at least one-day interval between inspections. Track geometry and fit is inspected for obvious gage and alignment defects, improper ballast section and washouts, tightness and proper fit of switch points and other moving parts. Rail is checked for cracks, deterioration, corrugation, excessive wear, and the right-of-way is inspected for vegetation growth. There are also inspections of the right-of-way for possible clearance infringements.

Track Maintenance responsibilities include:

- Maintain the guideway that consists of ballasted track, embedded track, and direct fixation track
- Maintain crossovers, turnouts and track on the mainline and in yard storage areas
- Utilize a maintenance plan to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, accident related activities, and emergency responses; make records available to the CPUC for review and audit.
- Comply with Metro's System Modification Procedure (CF15)

E.1.3.2 Traction Power Maintenance

The Traction Power preventative maintenance plan is a scheduled program that was developed through standard maintenance and operating procedures, based on manufacturer recommendations and experience. Inspection forms have been developed for each piece of equipment to document that the preventative maintenance has been performed.

Corrective maintenance consists of trouble-shooting failures and returning equipment to service. Personnel are dispatched by ROC via radio regardless of their assigned preventative maintenance areas. Once on the scene, the inspector will determine what the failure is and take the corrective measures necessary to maintain continuity of revenue service. When necessary, temporary repairs are made in order to maintain revenue service and permanent repairs are performed during non-revenue hours.

Traction Power Maintenance responsibilities include:

- Inspect and maintain electrical power substations, third rail system, overhead contact systems, auxiliary power equipment, ventilation system, tunnel lighting, uninterruptible power supply, and other associated equipment
- Utilize a maintenance plan to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, accident related activities, and emergency responses; make records available to the CPUC for review and audit
- Comply with Metro's System Modification Procedure (CF15)

E.1.3.3 Rail Signal Maintenance

The Rail Signal preventative maintenance plan is a scheduled program routinely performed at specific intervals. The maintenance intervals are set by following the Association of American Railroads (AAR) guidelines, equipment Operations and Maintenance manuals, industry standards such as American Public Transportation Association (APTA), and by tracking equipment performance through routine inspections and failure reports. Manpower deployment is accomplished by means of a check off schedule that lists the routine tasks to be accomplished during the set time frame. This system is designed to prevent duplication of tasks and provides a means whereby many different tasks can be performed in an efficient and timely manner. Reports are filed for each task that is completed and are reviewed to determine if any further action is needed. The objectives of the preventative maintenance plan are to ensure operational safety and system dependability by means of periodic testing and inspections; to reduce service failures; to prolong equipment life; to minimize maintenance costs; and to optimize manpower allocations.

The maintenance consists of troubleshooting failures, the repairing of failed equipment, and returning equipment to operation in a safe, efficient, and timely manner. Equipment failures that affect the operation of revenue service are handled by response crews, who are notified by ROC through radio dispatched trouble calls. Failed equipment is replaced in kind and repaired at a later date to minimize disruption to revenue service. The response crews file trouble reports to track equipment failures and to aid in troubleshooting the failed equipment.

Equipment is repaired in-house whenever possible or through an exchange program with the manufacturer and returned to stores as spare equipment. The philosophy of the corrective maintenance plan is to repair failed equipment as quickly as possible with minimal effect on revenue service. Rail Signal Maintenance responsibilities include:

- Inspect and maintain train protection system, train control and crossing warning systems; maintain the track switches, wayside cab signaling system, wayside signals and associated track circuits
- Utilize a maintenance plan to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, accident related activities, and emergency responses; make records available to the CPUC for review and audit
- Comply with Metro's System Modification Procedure (CF15)

E.1.3.4 Rail Communications and Supervisory Control and Data Acquisition (SCADA)

Rail Communication Systems, Transit Automatic Control System (TRACS)/Supervisory Control and Data Acquisition (SCADA) responsibilities include:

- Service and maintain ROC Supervisory Control and Data Acquisition systems, Public Announcement systems, Radio systems, Closed-Circuit Television systems, the Transit Passenger Information System (TPIS) and the Emergency Telephones (ETEL's)
- Utilize a maintenance plan to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, accident related activities, and emergency responses; make records available to the CPUC for review and audit
- Perform facilities inspections as outlined in the department's maintenance plan
- Comply with Metro's System Modification Procedure (CF15)

E.1.3.5 Rail Facility Maintenance and Custodial Services

Specialized supervisors and technical staff maintain rail facilities and systems in safe operating condition. Responsibilities of Facilities Maintenance include the following:

- Perform preventative and remedial maintenance of shop and rail facility equipment; perform building construction and repair and maintenance work on station platforms, parking lots and structures, deluge systems, and on the right-of-way (fences and signs, etc.)
- Perform facilities inspections
- Utilize a maintenance plan to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, accident

related activities, and emergency responses; make records available to the CPUC for review and audit
- Comply with Metro's System Modification Procedure (CF15)

E.2 METRO BUS MODE

E.2.1 BUS TRANSPORTATION

The Senior Executive Officer of Bus Transportation oversees eleven bus transportation divisions and directs the overall activities of Metro's bus service delivery.

E.2.1.1 Bus Transportation Divisions

The head of each Bus Transportation Division has the following responsibilities:

- Safety within their organizational units including the safety of employees, facilities, equipment, operations, and services provided.
- Safety programs within their organizational units
- Coordinating the implementation and maintenance of these safety programs.
- Ensuring employees comply with safe and healthy work practices, communicating with employees regarding occupational health and safety issues, identifying, evaluating and correcting hazards in a timely manner, ensuring that all accidents, injuries, and illnesses are investigated and that recommendations, if appropriate, for corrective actions are developed and implemented as warranted.
- Evaluating the potential impact of proposed modifications on the safety ofall affected systems prior to implementation.
- Ensuring that employees have required licenses, and all required up-to-date certifications.
- Ensuring that supervisors and employees under their control are trained in the elements of hazards associated with their work environment, job specific safety requirements, and safety-related policies, procedures, rules, and work practices.

E.2.1.2 Bus Operations Control (BOC)

The BOC manages daily bus operations. This facility dispatches Transit Operations Supervisors in response to collisions and other operational problems. The BOC also provides notification to various departments in the event of emergencies and arranges for replacement equipment. The BOC contacts Field Equipment Technicians and division

maintenance to respond to bus road calls The BOC is staffed 24 hours a day, seven days a week.

E.2.2 BUS MAINTENANCE

E 2.2.1 Bus Maintenance

The Senior Executive Officer of Bus Maintenance oversees eleven bus maintenance divisions and directs the overall maintenance activities for Metro's bus fleet.

Bus maintenance is tasked with providing a safe and mechanically reliable fleet of buses. Bus maintenance utilizes preventative maintenance programs that include performing maintenance on vehicles at regularly scheduled mileage intervals. The intent is to maintain vehicles in a condition compatible with the highest safety, dependability, and appearance standards. Well-designed preventative maintenance procedures, and enforcement of these procedures, ensure the highest possible reliability of bus fleet.

The scheduled preventative maintenance programs attempt to identify problem areas before they require unscheduled corrective maintenance. Therefore, reporting requirements are developed for each inspection procedure to support future preventative maintenance activities as well as effectively communicate the specific need for corrective maintenance.
The flow of information between preventative and corrective maintenance activities is critical to the success of both types of maintenance.

Records of all preventative maintenance actions are documented in the Maintenance Management System. The preventative maintenance programs include the following:

- Inspection - All buses are subjected to a periodic inspection program (based on accumulated mileage) to determine if conditions exist that require a maintenance action. The level and frequency of inspections is consistent with contractor and supplier recommendations, industry standards, the safety-criticality of the equipment, and operational experience.
- Servicing - Servicing consists of regularly scheduled activities that are necessary to maintain the performance of the vehicle and its components. These activities include lubrication and adjustment, but they also may involve the replacement of consumables such as air filters. Equipment manufacturers provide recommended servicing schedules in their maintenance manuals. Although manufacturer recommendations will be followed during the warranty period of bus vehicles, servicing schedules may subsequently be modified to suit the operating conditions of each particular bus division.

For planning purposes, the preventative maintenance of buses will be performed on the basis of miles of operation in accordance with the Revenue Service Bus Maintenance Plan.

Bus Maintenance functions include:

- Conduct prescribed inspections of buses in the manner specified by the Revenue Service Bus Maintenance Plan.
- Conduct non-scheduled maintenance and inspections
- Perform failure analyses, as necessary, to determine the cause(s) of failures and recommend corrective action
- Develop and update maintenance rules and procedures as necessary
- Ensure bus maintenance personnel have been trained and have the required licenses and/or certification
- Train personnel in injury and illness prevention, emergency procedures, and safe vehicle operation; communicate safety messages to personnel; investigate occupational injuries; take corrective actions to prevent or mitigate recurrences including discipline and counseling; investigate reports of unsafe conditions; inspect facilities; and maintain safety records at the facility
- Perform and document random checks of completed maintenance activities at the various mileage intervals
- Comply with Metro's System Modification Procedure (CF15)

E.2.3 Central Maintenance Facility (CMF)

CMF provides maintenance support to operating divisions. The facility consists of Central Maintenance Shops, Fleet Management and Support Services, and Quality Assurance. The Quality Assurance staff also serve as Metro's liaison with the California Highway Patrol and is responsible for managing compliance with Title 13 of the California Code of Regulations.

The Central Maintenance Shops provide heavy maintenance and bus refurbishment for all bus operating divisions including complete bus painting, major accident repair, engine replacements, and mid-life overhauls/ refurbishments. Additional Central Maintenance Shop functions include the rebuild and fabrication of parts and tools used by bus maintenance and other Metro departments.

Fleet Management and Support Services controls and assigns the bus fleet, aids in repair to buses en-route and at layover zones to avoid service disruption and provides Maintenance Management System technical support to maintenance departments.

The Quality Assurance department is directly responsible for the management of goods

and services contracts, bus fire investigations, and brake tests.

The Contract services department is directly responsible for contracted operations oversight.

The non-revenue department is directly responsible for non-revenue vehicle/equipment.

The Revenue Collection department is directly responsible for fare collection maintenance, and radio equipment maintenance.

E.2.4 Operations Central Instruction (OCI)

Metro's OCI Department provides the training ground and continual support to the agency's Operations employees working in Bus Maintenance and Transportation. Mission critical training responsibilities include:

- New Hire Bus Operator Training
- Post-Accident Training
- Safety Training (several certification courses)
- Customer Relations Training
- Line Instructor Mentor Training
- De-Escalation Training
- Transportation Safety Institute (TSI) Instructor's courses in:
  - Bus Operator Training Accident Investigation Training
  - Return to Work Training
  - World Class Customer Service training

Additionally, OCI produces and implements ad - hoc training programs to address any of the numerous endeavors Metro undertakes to improve service to our customers.

OCI serves as an extension of the Department of Motor Vehicles (DMV) for commercial licensing purposes through DMV's Employer Testing Program (ETP). Through ETP, all OCI instructors are trained and certified by the DMV to conduct official pre-trip, skills and road examinations of employees required to obtain a commercial driver license. The Transportation Safety Institute (TSI) also partners with OCI's own official TSI certified instructors who dedicate themselves to train and certify others to become official train-the-trainers. This credential is necessary to provide legally sanctioned training for coach Bus Operators and supervisors who must receive annual training to maintain CDL validity.

E.2.6 Vehicle Technology

Vehicle Technology identifies, reviews, tests, and procures high-capacity, alternative

fueled, advanced technology buses. It provides operational and technical support and training on the operation and maintenance of new vehicles, manages all bus acquisitions, processes bus warranty claims, and oversees advanced vehicle technology projects that can increase operating efficiency or improve services provided for Metro transit passengers and employees.

E.3 FACILITIES MAINTENANCE

The Central Facilities Maintenance group provides direct support to all Metro operating divisions. An important function of facilities includes the development, implementation, and management of capital programs for Metro's facilities to improve existing facilities and the promote employee safety.

Facilities Maintenance has the following functions:

- Provides HVAC, locksmith services, plumbing, painting, and other property maintenance tasks
- Manages select contracted services such as crane inspection/repair, graffiti abatement, glass service, landscaping and railroad right-of-way and parcel property maintenance.
- Produces decals for Metro buses in addition to signs for bus stops, rail, facilities and yard signage (Sign Shop).
- Maintains terminals, bus stops, layover zones, and inactive right-of-way (Stops and Zones)

Appendix F: Rail Accident Investigation Procedures (Rail AIP)

PART 1 GENERAL OVERVIEW

1.1 INTRODUCTION

Section 99152 of the Public Utilities (PU) Code authorizes the California Public Utilities Commission (CPUC) to regulate and oversee the safety of rail transit systems in the State of California. To fulfill its oversight responsibilities, the CPUC establishes safety requirements by adopting rules and procedures, known as General Orders (GO). In 1996, the CPUC adopted GO 164 series, "Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems", in response to the Federal Transit Administration's Final Rule 49 Code of Federal Regulations, Part 673, which requires State safety oversight of rail fixed guideway systems. The requirements for reporting and investigating rail accidents by transit agencies are found in the GO 164 series. Section 315 of the PU Code specifically addresses the investigation of accidents by the CPUC and reads in part:

> "The Commission shall investigate the cause of all accidents requiring, in the judgment of the Commission, investigation by it, and may make such order as in its judgment seems just and reasonable."

The CPUC has the authority to conduct its own independent accident investigations. However, in actual practice the CPUC has delegated this responsibility to the Rail Transit Agencies (RTA's) on behalf of the Commission.

To meet these requirements, the Los Angeles County Metropolitan Transportation Authority (METRO) has developed the following procedures to be used in the event of rail accidents.

1.2 PURPOSE AND OBJECTIVES

The purpose of this document is to establish procedures and guidelines to be followed by METRO personnel responding to rail accidents. These procedures are intended to facilitate the following objectives:

- To improve system safety by reporting and investigating all reportable rail accidents and implementing corrective measures, if warranted, to prevent or mitigate recurrences.
- To define the role and responsibilities of individuals, and departments who respond to rail accidents which occur on Metro's operating rail

lines.

These procedures detail the accident reporting procedures from the initial notification, through investigation, to the actual preparation of the final report, and tracking of any corrective measures.

Each department is responsible for carrying out their tasks as defined in the Rail Accident Investigation Procedures.

PART 2 GENERAL INVESTIGATION PROCESS

2.1 RESPONSE

Upon notification of an accident by ROC, Metro staff shall proceed to the accident scene and report to the Metro On-Scene Coordinator (OSC),and support the accident investigation process as described below.

2.2 ACCIDENT INVESTIGATION ACTIVITIES

Metro will identify an On-Scene Coordinator (OSC) who will act as a liaison with ROC for all at the scene activities. The Metro OSC will report to the Incident Command Post, if it has been established, or to the Fire or Police personnel assigned or acting as Incident Commander. The OSC will afford the Incident Commander assistance to mitigate the situation.

The OSC or their designee will conduct the investigation for all accidents. The Incident Commander jointly with the OSC will determine when to release the scene for normal operations.

The following activities should be conducted by the OSC or their designee, or support departments, **if applicable and to the extent possible**:

- Secure the scene
- Inspect/preserve physical evidence
- Document fact/findings
- Conduct interviews
- Take photos
- Take measurements
- Assess requirement for drug test per Metro Drug and Alcohol Policy
- Prepare Supervisor's Report

The OSC should document the facts concerning the following: damage to equipment and infrastructure, weather conditions, position and status of signals, switches, cab controls and cut out controls, use of audible warning devices, application of brakes, use of sand, area of impact, and point of rests of other parties involved in the accident, etc.

PART 3 ROLES AND RESPONSIBILITIES

3.1 GENERAL

The following sections support the foregoing accident investigation process; identify and expand on roles and responsibilities of responding personnel representing the various departments within Metro. This information has been established to ensure that each Department and all personnel within each section understand and provide support to the Rail Accident Investigation Procedures.

It is recognized that not all departments will need to respond to all types of accidents occurring on the operating rail system. The detailed functions described in this part apply to the investigation of accidents described under Section 3.2.2 of this document.

3.2 SAFETY DEPARTMENT

3.2.1 RESPONSIBILITY

The safety department has primary responsibility for developing and updating the Accident Investigation Procedures. In addition, it will provide accident investigation training resources for use by other departments.

The Safety department will be responsible for investigating the reportable safety events and preparing the report that is required by the California Public Utilities Commission (CPUC), by reviewing information contained in various internal and third party reports, videos, and data/information collected by Corporate Safety staff. All staff who conduct the investigations are either trained through the Transportation Safety Institute courses, have certification through the Accreditation Commission for Traffic Accident Reconstruction organization, or have significant experience in accident investigation.

The safety department will be the liaison for all accidents investigated by the CPUC or National Transportation Safety Board (NTSB), and for arranging accident reconstructions when warranted. In the event of an NTSB investigation, the safety department will coordinate secure storage and protection of physical evidence at or away from the accident scene.

In the event information such as Police Reports, Coroner's Reports, etc. is not available at the time the CPUC report is due, an interim report will be submitted to the CPUC per the GO 164 series requirements, including 30-day updates.

3.2.2 NOTIFICATION TO REGULATORY AGENCIES

The safety department will notify the CPUC within two (2) hours of any event/accident that meets the thresholds identified in 49CFR674 and CPUC General Order 164 series.

The following information will be provided as part of the electronic notification (record of notifications are available from the CPUC):

- The time and date of the accident;
- The location of the accident;
- The number of fatalities and/or injuries;
- The rail transit vehicle involved in the accident;
- The type of incident and brief description of accident,
- The emergency response organizations at the scene of the accident.

The safety department representative shall also notify other Regulatory Agencies in accordance with existing requirements of the Federal Transit Administration, Federal Railroad Administration, and the National Transportation Safety Board.

The safety department shall be responsible for providing the CPUC staff an opportunity to participate to the fullest extent possible in all aspects of the investigation. The safety department representative will provide advance notification of additional (other than those conduced at the scene) interviews, inspections, measurements, tests, examinations and meetings with investigators, consultants, review boards, etc. to review, analyze and draw conclusions regarding accident related information.

3.2.3 CPUC INVESTIGATION REPORT

On behalf of the CPUC, the safety department is responsible for preparing the investigation report, which includes reviewing external reports such as Police, Fire, Coroner, etc., if applicable. The safety department is also responsible for preparing (if applicable) and tracking any corrective action plans resulting from the investigations. Corrective action plans will include the corrective action to be taken, the department and person responsible for the corrective action, a target completion date and the actual completion date.

Investigation reports for accidents meeting the thresholds described in section 3.2.2 will be submitted to the CPUC within 60 calendar days of the occurrence of the accident.

3.3 RAIL OPERATIONS CONTROL (ROC)

3.3.1 NOTIFICATION

Rail Operations Control (ROC) receives the initial report of any accident on the rail system. Upon notification, ROC dispatches a field supervisor to respond to the scene and then notifies all pertinent internal departments and external agencies such as law enforcement and emergency response agencies of the nature of the incident.

ROC is responsible for supporting all activities required at the accident scene through the On-Scene Coordinator (OSC).

ROC is responsible for maintaining service, if possible, or arranging for alternate transportation services and preserving video, Supervisory Control and Data Acquisition (SCADA)/ Transit Automatic Control System (TRACS) and voice and data communication information prior to, during, and following all accidents.

ROC will document all requests and events as they occur at the accident scene from initial notification of an accident until service is re-established.

3.3.2 ROC FOLLOW UP ACTIVITIES

ROC is responsible for maintaining the above information and for providing it in support of the accident investigation process and for supporting subsequent activities related to the process.

3.4 RAIL TRANSIT OPERATIONS SUPERVISOR (RTOS)

The Rail Transit Operations Supervisor will be responsible for assuming the role of On Scene Coordinator (OSC), conducting an investigation and completing the required re- ports.

3.4.1 RAIL TRANSIT OPERATIONS SUPERVISOR (RTOS) FOLLOW UP ACTIVITIES

The On-Scene Coordinator is responsible for completing the Supervisors Report, in the Metro's electronic database system.

3.5 TRAIN OPERATORS

3.5.1 AT SCENE PROCEDURES

Train Operator's shall:

a.) Contact ROC immediately & describe the type of accident, location, injuries and dam- age.

b.) Protect self and passengers from hazards created by the accident. c.)
Attempt to extinguish any fires, if possible, without taking undue risks.

d.) Coordinate evacuation, if necessary, with ROC/OSC. Make PA announcements to keep passengers informed of the situation and status of response agencies.

e.) In case of injuries, protect the injured parties, but do not attempt to move them, unless they require assistance in evacuating if a fire is involved. Do not volunteer ambulance service or ask persons if an ambulance is desired, unless it is obvious that such ser- vice is necessary. However, if a person requests an ambulance, immediately notify the OSC or ROC.

f.) Pass out Courtesy Cards to bystanders and other persons who were in a position to have witnessed the accident. If injuries occurred on that train, use Courtesy Cards and indicate on the card "passenger."

g.) Provide the police and other driver (s) with necessary information.

3.5.2 TRAIN OPERATOR FOLLOW UP ACTIVITIES

The Train Operator is responsible for completing and preparing his or her accident re- port in Metro's electronic database system. The train operator is also responsible for co- operating in the accident investigation process.

3.6 DEPARTMENT MANAGERS

3.6.1 DEPARTMENT MANAGERS FOLLOW UP ACTIVITIES

The Department Manager is responsible for coordinating the following activities in all accidents.

a) Ensure employee(s) involved in the accident are interviewed and complete their required reports.
b) Ensure the completion and accuracy of all reports.
c) Support accident investigation process by providing information such as training records, accident history, hours of service, fatigue, etc.
d) Implement remedial action(s) necessary to prevent or mitigate recurrences.

3.7 RAIL FLEET SERVICES

3.7.1 AT SCENE PROCEDURES

Upon arrival at the accident scene, the Rail Fleet Services representative will report to the OSC and shall be responsible for the following tasks:

a) Provide information and/or assistance to the OSC as requested.
b) Make and implement recommendations to the OSC in regard to their specialty, for expediting restoration of normal revenue service.

3.7.2 FOLLOW UP ACTIVITIES

The Rail Fleet Services Department will be responsible for the following activities after the incident train has returned to the shop:

a) Conduct a post accident inspection of the incident train(s) and document findings.
b) Provide maintenance records & technical data, & make recommendations as appropriate.
c) Take any remedial actions necessary to prevent or mitigate recurrences.

3.8 WAYSIDE SYSTEMS

3.8.1 AT SCENE PROCEDURES

Upon arrival at the accident scene, the responding Wayside Systems representatives shall report to the OSC and shall be responsible for the following tasks as applicable:

a) Inspect the integrity of infrastructure and systems as it pertains to their discipline.
b) Make and implement recommendations to the OSC in regard to their specialty, for expediting restoration of normal revenue service.

3.8.2 FOLLOW UP ACTIVITIES

As part of the follow-up activities, the Wayside Systems department is responsible for:

a) Document the findings from the accident and any repairs performed on any components or systems.
b) Providing previous inspection and maintenance activity records on Wayside Systems equipment that are applicable to the incident, such as Preventative Maintenance (PM) records for warning devices for accidents at a grade crossing, or PM records for track for a mainline derailment.

3.9 Accident Reporting Requirements

The safety department will submit one of three types of accident/incident reports to the CPUC as follows:

For security related events and evacuations due to a bomb threat, small trash can or debris fires, smoking brakes, false gas alarms, suspicious package etc. *that do not constitute a real potential danger to any person*, staff will submit the Incident Report prepared by the ROC.

The safety department will submit a “MAJOR EVENT REPORT” (Form B) to the CPUC within 60 days of the date of the accident for events listed in section 3.2.2 with the exception of collisions that result in non-serious injuries and non-substantial damage. The “CPUC MINOR EVENT REPORT” will be submitted within 60 days of the date of the accident for collisions that meet the exceptions. The formats for the MAJOR EVENT REPORT (Form B) and the CPUC MINOR EVENT REPORT are shown on the following pages.

3.9.1 Accident Reports

The Safety Department will make every attempt to collaboratively work with the CPUC regarding Commission comments and approval in compliance with General Order 164 series as it relates to submittal of Accident Reports.

3.9.2 CPUC MINOR EVENT REPORT- Page 1 of 2

164-E Minor Event Report
(7/17/2024)

CALIFORNIA PUBLIC UTILITIES COMMISSION
MINOR EVENT REPORT
(Not to be used for Fatalities or Serious Injuries[1])

REPORTED TO TOC (Yes ☐ / No ☐) **REPORTED TO NTD (Yes ☐ / No ☐) (NTD #)**

RAIL TRANSIT AGENCY: LACMTA			CPUC INCIDENT #:		
LOCATION:		TRAIN #: CAR(s) #:	TRAIN DIRECTION OF TRAVEL:		NO. OF NON-SERIOUS INJURIES:
LIGHTING (DAY/NIGHT/DUSK/DAWN):	WEATHER:	DATE:	TIME:	DESIGN SPEED: A/E Lines: 55 MPH B/D Lines: 70 MPH C/K Line: 65 MPH	ESTIMATED SPEED AT TIME OF EVENTS:
COMMISSION HIGHWAY-RAIL GRADE CROSSING NUMBER (IF APPLICABLE):					

COLLISION WITH A MOTOR VEHICLE	YES ☐	NO ☐	N/A ☐
COLLISION WITH AN OBJECT	YES ☐	NO ☐	N/A ☐
COLLISION WITH A PERSON	YES ☐	NO ☐	N/A ☐
YARD DERAILMENT	YES ☐	NO ☐	N/A ☐
OPERATOR'S REPORT AVAILABLE	YES ☐	NO ☐	N/A ☐
SUPERVISOR'S REPORT AVAILABLE	YES ☐	NO ☐	N/A ☐
GRADE CROSSING COLLISION	YES ☐	NO ☐	N/A ☐
GATED CROSSING	YES ☐	NO ☐	N/A ☐
TRAFFIC SIGNAL CONTROLLED CROSSING	YES ☐	NO ☐	N/A ☐
UNCONTROLLED CROSSING	YES ☐	NO ☐	N/A ☐
PEDESTRIAN CROSSING	YES ☐	NO ☐	N/A ☐
OPERATOR TESTED FOR D&A	YES ☐	NO ☐	N/A ☐
TRANSIT VEHICLE OUT OF SERVICE	YES ☐	NO ☐	N/A ☐
SUBSTANTIAL DAMAGE[2]	YES ☐	NO ☐	N/A ☐
VIDEO/AUDIO AVAILABLE FOR REVIEW	YES ☐	NO ☐	N/A ☐
RULE(S) VIOLATION	YES ☐	NO ☐	N/A ☐
TOW AWAY	TRAIN ☐	VEHICLE ☐	N/A ☐

[1] 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 nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second or third-degree burn(s), or any burns affecting more than 5 percent of the body surface.

[2] Substantial damage is any physical damage to transit or non-transit property including vehicles, facilities, equipment, rolling stock, or infrastructure.

Substantial damage includes damage which adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation.

3.9.2 CPUC MINOR EVENT REPORT– Page 2 of 2

DESCRIPTION OF THE EVENTS / INVESTIGATION FINDINGS (INCLUDE PHOTOGRAPHS IF APPLICABLE):

PROBABLE CAUSE:

CONTRIBUTING FACTORS:

RECOMMENDATIONS:

CORRECTIVE ACTION PLAN: (YES ☐ NO ☐) CPUC CAP #:	ACTION	SCHEDULE	DEPARTMENT/INDIVIDUAL RESPONSIBLE

PHOTOGRAPHS (IF APPLICABLE):

(Add Map)

CONFIDENTIAL

Form B Report
Rev. 10 – 10/28/2024

LA METRO
MAJOR EVENT REPORT
(To be used for Fatalities, Serious Injuries[1], or other Non-Minor Report Requirement)

REPORTED TO TOC (Yes ☐ / No ☐) **REPORTED TO NTD (Yes ☐ / No ☐) (NTD #)**

RAIL TRANSIT AGENCY: LACMTA			CPUC INCIDENT #:		
LOCATION:		TRAIN #: CAR(s) #:	TRAIN DIRECTION OF TRAVEL/TRACK:		NO. OF FATALITY: NO. OF SERIOUS INJURY: NO. OF NON-SERIOUS INJURY:
LIGHTING (DAY/NIGHT/DUSK/DAWN):	WEATHER:	DATE:	TIME:	DESIGN SPEED: A/E Lines: 55 MPH B/D Lines: 70 MPH C/K Line: 65 MPH	ESTIMATED SPEED AT TIME OF EVENTS:
COMMISSION HIGHWAY-RAIL GRADE CROSSING NUMBER (IF APPLICABLE):					

COLLISION WITH A MOTOR VEHICLE	YES ☐	NO ☐	
COLLISION WITH AN OBJECT	YES ☐	NO ☐	
COLLISION WITH A PERSON	YES ☐	NO ☐	
DERAILMENT	MAIN ☐	YARD ☐	N/A ☐
EVACUATION FOR FIRE-LIFE SAFETY REASONS	YES ☐	NO ☐	
OPERATOR'S REPORT AVAILABLE	YES ☐	NO ☐	N/A ☐
SUPERVISOR'S REPORT AVAILABLE	YES ☐	NO ☐	
GRADE CROSSING COLLISION	YES ☐	NO ☐	N/A ☐
GATED CROSSING	YES ☐	NO ☐	N/A ☐
IF GATED, TYPE OF GATES	2-QUAD ☐	4-QUAD ☐	N/A ☐
TRAFFIC SIGNAL CONTROLLED CROSSING	YES ☐	NO ☐	N/A ☐
UNCONTROLLED CROSSING (i.e. DWY)	YES ☐	NO ☐	N/A ☐
PEDESTRIAN CROSSING	YES ☐	NO ☐	N/A ☐
OPERATOR TESTED FOR D&A	YES ☐	NO ☐	N/A ☐
TRANSIT VEHICLE OUT OF SERVICE	YES ☐	NO ☐	N/A ☐
SUBSTANTIAL DAMAGE[2]	YES ☐	NO ☐	N/A ☐
VIDEO/AUDIO AVAILABLE FOR REVIEW	YES ☐	NO ☐	N/A ☐
THE CPUC REVIEWED RELEVANT VIDEO/AUDIO FILES	YES ☐	NO ☐	N/A ☐
RTA EMPLOYEE RULE(S) VIOLATION	YES ☐	NO ☐	UNKNOWN ☐
TRAIN/HI-RAIL HORN SOUNDED	YES ☐	NO ☐	N/A ☐
TYPE OF BRAKES APPLIED (EMERGENCY/FULL-SERVICE)	EB ☐	FS ☐	N/A ☐
TRAIN VS. PERSON INCIDENT (10-72)	SUICIDE[3] ☐	INTENTIONAL ACT[4] ☐	ATTEMPTED SUICIDE[5] ☐
UNKNOWN[6] ☐	CRIMINAL ACT ☐	INATTENTION ☐	N/A ☐
GENERAL ORDER 143 SERIES HOURS OF SERVICE COMPLIANT	YES ☐	NO ☐	N/A ☐
ILLEGAL ELECTRONIC DEVICE OBSERVED WHILE OPERATING	YES ☐	NO ☐	UNKNOWN ☐
TOWED AWAY FROM SCENE	YES ☐	NO ☐	N/A ☐
MODE OF OPERATION CAB SIGNAL ☐ STREET ☐	YES ☐	MTO ☐	BYPASS ☐
TYPE OF RAILWAY STRT RNING ☐ AERIAL ☐	SUBWAY ☐	FREEWAY ☐	SEMI-EXL ☐

[1] 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 nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second or third-degree burn(s), or any burns affecting more than 5 percent of the body surface.

[2] Substantial damage is any physical damage to transit or non-transit property including vehicles, facilities, equipment, rolling stock, or infrastructure. Substantial damage includes damage which adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation.

[3] Official determination of suicide related fatalities are made by the coroner. Once the Coroner's report is received Metro will revise the accident report if discrepancies are found.

[4] Based on video or witness evidence, the incident was deemed to be an intentional self-directed act resulting in death.

[5] Based on video or witness evidence, the incident was deemed to be an intentional self-directed act resulting in injury.

[6] Based on video or witness evidence, the incident points to a possible suicide attempt although investigators could not confirm this as the cause.

INCIDENT SUMMARY:

FINDINGS:

INJURIES AND DAMAGE:

EMERGENCY RESPONSE:

HOURS OF SERVICE/OPERATOR'S LAST SEVEN DAYS:

DATE	DAY OF WEEK	SIGN-ON	SIGN-OFF	TOTAL ON-DUTY HOURS
INCIDENT DATE				

PROBABLE CAUSE:

CONTRIBUTING FACTORS:

RECOMMENDATIONS:

CORRECTIVE ACTION PLAN: (YES ☐ NO ☐)	ACTION	SCHEDULE	DEPARTMENT/INDIVIDUAL RESPONSIBLE
CPUC CAP #:			

APPENDIX A

DESCRIPTION OF THE INCIDENT LOCATION (INCLUDE LOCATION MAP):

APPENDIX B

PHOTOGRAPH(S)/SKETCH (IF APPLICABLE):

Appendix G: Bus Accident Investigation Procedures (Bus AIP)

The Incident Investigation & Reduction Procedure Manual

Metro™

Prepared by

Operations Central Instruction

TABLE OF CONTENTS

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I. INTRODUCTION

This manual was formally known as the Accident Investigation Procedure Manual. It has been revised to increase emphasis on accident prevention and update procedures to include systems new to Metro. Changes were made with the collaborated efforts of numerous Operations personnel from the Transportation Divisions, Bus Operations Control (BOC), Operations Central Instruction (OCI), Risk Management, Corporate Safety, etc.

Accident/Incident investigation is a fundamental element of Metro's safety program. The role of the investigation procedure is to identify, locate, and otherwise determine the cause of accidents, injury, and property damage may be reduced as a direct result of the investigation process. Ultimately, it reduces expenses that need to be allocated to settle claims for injury and repair damages. These monies could otherwise be redirected to maintaining service or providing our customers and operators with a safer more effective operating environment. Reducing the conditions and causes of accidents will benefit everyone.

This manual seeks to classify accidents into two categories: **Avoidable or Unavoidable**. Accidents classified in this manual are for the purpose of establishing whether or not the operator of the Metro vehicle could have taken reasonable action to avoid an accident. The determination of ability to avoid an accident is based on standards established by the Transportation Safety Institute (TSI).

The application of these standards does not establish nor seek to establish any degree of legal liability that may or may not exist with respect to the accident. There may be occasions when an operator is not legally liable for an accident deemed to be "Avoidable."

"Avoidable" accidents will be classified as such only after an investigation determines the operator of the Metro vehicle "could have taken reasonable action that may have prevented the accident from occurring."

"Unavoidable" accidents will be classified as such only after an investigation determines the operator of the Metro vehicle "could not have taken <u>any</u> reasonable action to prevent the accident from occurring."

II. PURPOSE

The purpose of this manual is to establish consistent procedures to investigate accidents at all Metro Bus Operations facilities leading to the prevention of future accidents from occurring. The manual sets forth the roles and responsibilities of Metro staff at all levels. Accountability and responsibility at each step of the process, for prevention will be developed based on the investigation reports.

III. RESPONSIBILITIES

Various corporate business units have oversight and direct accountability for the implementation of the procedures contained herein. This section of the manual defines those responsibilities.

1. The Director of Corporate Safety has oversight over all accident reduction procedures. Corporate Safety will insure that strategies for accident reduction will be widely disseminated throughout the organization. It is also the responsibility of Corporate Safety to maintain the Vehicle Accident Monitoring System (WEBVAMS) and Transitsafe™. (Please see Reference document "XI-A." Transitsafe™ Procedures).

2. The Director of Operations Central Instruction (OCI) has oversight of accident reduction training, the Operator's Rulebook & SOP, and insures compliance with industry safety practices. (Please see Reference document "XI-C." Bus Operator Rule Rulebook & SOP's).

3. Transportation Managers at each division are responsible for ensuring that all accidents are investigated in accordance with the procedures set forth in this manual. They are also responsible for recommending accident reduction strategies to Corporate Safety that may arise from experience and internal investigations. It is the responsibility of each division to initiate the accident investigation procedure by entering relevant data (shell) into the Vehicle Accident Monitoring System (VAMS) which allows for the operator to complete the accident report.

4. Vehicle Operations (VO) has oversight over field investigation of all accidents involving Metro vehicles, property and employees. Timely submission of reports, pictures and all evidence collected at the scene is the responsibility of VO as well as a responsibility to follow up with any safety concerns identified. A VO Supervisor can initiate the shell process but must notify the effected division to avoid duplication.

5. Bus Operations Control (BOC) has oversight of all communication at accident scenes and coordination among multiple departments and agencies. Timely notification to VO, the affected division and any and all relevant emergency personnel is the responsibility of BOC as well as the timely and thorough documentation of the incident.

IV. BUS INCIDENT INVESTIGATION FLOW

V. INCIDENT INVESTIGATION PROCEDURES

The incident/accident investigation process begins when the operator reports the incident/accident to Bus Operations Control (BOC). Once notification is received, BOC notifies a VO Supervisor of the incident. The first VO Supervisor at the location is responsible for conducting the on scene investigation.

During the operator's workday or prior to the conclusion of the workday, the operator inputs his/her incident report into Transitsafe™ at the Division. While not addressed directly here, the VO Supervisor response to the accident/incident scene is critical. The VO Supervisor must collect (but is not limited to) a statement from the operator concerning the incident, a statement from the other party if possible, photographs of the vehicles or property involved, photographs of the scene, request brake tests where appropriate, as well as interact with other local authorities and make efforts for service restoration. If necessary, the operator will be taken for a drug screen before returning to the division to complete necessary paperwork. (Please see Reference document "XI-D." for Metro's HR Drug and Alcohol Policy and Procedures.)

V- A. Window TOS Duties & Responsibility

The Window Transit Operations Supervisors (TOS) are responsible for the processing of all accident/incident, and/or miscellaneous reports turned in by Division Transportation personnel. The initial copy of the Safe-3, the printed summary report, running board, copies of operator's CDL, medical card and VTT are the responsibility of the Window TOS. The Safe-3 and attendant documents must be reviewed by the Window TOS before closing the accident report in Transitsafe™. In the event the Window TOS is not able to assist the operator, the Manager or Assistant Transportation Manager must be immediately notified.

All reports of accidents/incidents must be completed and filed in Transitsafe™ on the day of occurrence, except where there is an explainable emergency that prevents the employee from completing the report on that day. Where an emergency exists and the report cannot be completed and filed as required, it must be completed at the earliest possible opportunity after the "Incident." In the event of such an emergency, the Manager or Assistant Transportation Manager must be notified immediately and the reason for the delay documented.

All completed Accident/Incident reports are considered legal documents and should be viewed as such when the report is being processed to completion.

Window TOS must follow these procedures:

- *Before any shell is created, the Window TOS must question the operator to determine whether an accident report is required. The Window TOS must create a "shell' using the VAMS system. The shell is saved and then released to either the VAMS kiosk, or desktop computer.*
- *Obtain and copy the employee's driver's license, VTT and medical certificate for the accident file.*
- *After the employee completes his/her report, the Window TOS must review the report for clarity, accuracy, and completeness, before closing it. The report is then printed and signed by the operator.* ***Note, "Closing" a report means that the data provided can no longer be edited by the operator or the TOS. Any changes to the data can the*** ———*te*

  location and direction of the vehicles at the time of the accident. The Window TOS must assign the proper accident code prior to closing Transitsafe™. A listing of the accident/incident codes is included in Reference document "B." Collision classification Reference Guide.
- *All available courtesy cards must be attached to the package.*
- *The Operator's running board must also be attached to the package.*
- *An Equipment Damage Report (EDR) must be filed for <u>every</u> report regardless of accident type. This is now unnecessary. The person that does the EDR now has access to the form in Transitsafe™. We should only be inputting our data in Transitsafe™ and let maintenance finish the form, print and sign it.*
- *The all night Window TOS, using WEBVAMS, must print a copy of the Accident Summary report of all processed accident/incidents for the particular day and distribute to all Division Management and to the division's Instruction department.*
- *The Window TOS must check the sequence number and verify that all accidents were recorded and accounted for at the end of the day.*

V-B. Instruction Department's TOS Duties & Responsibilities

The Instruction TOS are responsible for completing a thorough investigation related to each and every incident/accident.

Instruction TOS must follow these p:

- *The Instruction TOS must gather the accident/incident reports from the previous day.*
- *Prior to processing the accident/incident, the Instruction TOS must review and verify that each package contains the pertinent information necessary to begin an investigation. The accident package must include, at a minimum, all pertinent items and documents (see Appendix 1).*
- *The Instruction TOS must prepare accident packages for distribution:*
  a. *Risk Management (located at the USG Headquarters building) gets a copy of the accident and summary report.*
  b. *Hertz Claims Management (HCM) gets a copy of the accident, summary, and copy of witness cards (originals? We have been sending the originals to HCM. Let us know if there is a change), operator running board, copy of operator license, VTT, and Medical, and ARB results.*
  c. *Steno gets original accident report, summary report, witness cards, operator running board, copy of operator license, VTT, and Medical, and ARB results.*
  d. *A copy of the accident/incident summary shall be placed in the Instruction Book.*
- *After reviewing the accident/incident package, the TOS may assign a "pending" status to accidents/incidents identified as requiring additional investigation.*
- *Accident/incidents recommended for a determination of "unavoidable" must be forwarded to an Assistant Transportation Manager, as well as the Transportation Manager, if required. All pedestrian related*
- *Accidents identified as requiring further investigation to determine a classification of "avoidable" or "unavoidable" must be forwarded to the 1st Level Accident Review Board.*
- *Instruction TOS may access the status of accident/incident reports from WEB VAMS in the exception reports. Operators who are on long term leave, for example, who cannot be interviewed within the appropriate KPI time frame will be carried in the exception report as "LTS".*
- *The Supervisory Investigation portion of the accident report must be completed in Transitsafe™. Using the following guidelines: Employee Incident Closure – 1 day; Supervisor Incident Investigation – 7 days; Investigation and Final Report – 30 days from date of accident/incident. Certain accidents/incidents shall remain open beyond 30 days pending information pertinent to make a classification. These cases include (but are not limited to) incidents involving pedestrians or severe collision incidents that require additional agency input (e.g. CHP). A notation on the exception report shall be made when the specific incident has gone beyond the 30-day standard.*

Instruction Accident/Incident Investigation

The following is an outline of the Instruction Accident/Incident Investigation Procedure:

A. *Read accident reports (making sure that it is filled out correctly). Go into Transitsafe™ (office use), fill in appropriate boxes (description of accident, supervisor's badge number, bus number, operator's seniority, etc. and appropriate code).*

B. *Go into the field investigation section in Transitsafe™ print out road supervisor's report and photos if any. If not, check again in 72 hours.*

C. *Print the Incident Report from BOC (from ATMS mta_60).*

D. *Go into instruction investigation; fill out the four boxes (damage to bus, injury to operator if any and the next two is vehicle code violations).*

E. *Go into view fields. Scroll down and in the accident investigation box put in appropriate field (avoidable, unavoidable, send to accident review board or instruction investigation). If unavoidable fill out appropriate boxes (description of accident, facts, and actions taken).*

F. *Make copies of witness [redacted] no.*

ii. *If the accident requires further investigation, keep the original accident report. Send an email request to the BOC Assistant Manager(s) and the Assistant Transportation Manager for any DVR download request, include the date, time (30 min before and after accident time), bus number, name (operator), badge, and reason for request. (Some division staff may be able to send a fax directly to the facilities staff to perform the download without additional step for notification).*

H. *Record the email request in the video log book.*

I. *When DVR is received, make copy of receipt and store receipt in DVR book.*

J. *Go to the video log book, label each DVR received and put the DVR in appropriate accident folder.*

K. *View DVR to record the time on the video when the incident occurs. Print relevant images of the incident to include in the accident package.*

L. *Go into VAMS (reports). Run an exception report, making sure that the accidents are at the bottom of report (if not the boxes were not filled out).*

M. *Call witnesses. If at home or work; ask questions on witness form and get statement. If not at home or work, mark date and time called on copy of witness cards, Appendix 2.*

N. *As necessary, go to the scene of accident; take photos; take measurements and make a diagram of scene. (An example of an accident scene diagram is included in Appendix 3).*

O. *Print the diagram from computer program as drawn by the operator. The investigating TOS should also include an accident diagram of the scene. (See Appendix 4.)*

P. *Scan and import all supporting documents in the accident package into Transitsafe™.*

VI. 1ST LEVEL ACCIDENT REVIEW BOARD

Before any accident is assigned an "avoidable" status, a three-member, 1st Level Accident Review Board (ARB) must review it. The Board is comprised of one Instruction supervisor, one Line Instructor/Mentor and the Manager or Assistant Manager.

Probationary operators who are involved in accidents are not taken through this process. Their accident reports are reviewed by the Instruction TOS investigating accidents, and then given to the Assistant Transportation Manager for a determination of avoidability. In some cases, further investigation may be required before any charge is made.

The purpose of the ARB is to review the accident file and interview the operator as a means of clarifying the information in his/her report, and to determine the accident's avoidability. The review process also gives the operator an opportunity to ask questions, and to elaborate on their explanations of the "Incident".

It is recommended that all members of an ARB have a chance to review all documentation before the actual ARB is convened. ARB members must prepare their questions and/or areas requiring clarification before participating in the ARB. By being prepared, the ARB can better ascertain the factors contributing to the incident/accident and make a better determination as to avoid ability.

After all members of the ARB have submitted their independent written decisions, the Assistant Transportation Manager has the responsibility to review the ARB's determination and verify that all ARB members' decisions were substantiated by their written narrative using the rules and standard operating procedures. Within fourteen (14) working days, the operator must receive a written notification of the outcome of the ARB. If the accident was deemed avoidable, the Assistant Transportation Manager assesses discipline as per the

division prior to the ARB, the division where the accident occurred will be the Control Division. The Control Division will be responsible to investigate and hold the ARB. It is incumbent on the Assistant Transportation Manager at the Control Division to ensure proper notification to the operator. If any discipline results, the division where the operator is working may assess the discipline provided that all documentation is provided to the new management.

VII. 2ND LEVEL ACCIDENT REVIEW BOARD

The Grievance Hearing Officer will allocate forty-five (45) minutes for 2nd Level Accident Review Boards. In the event parties are not adequately prepared to present their case at the time scheduled, the case may be rescheduled for a future date.

In order to be properly prepared at the hearing, upon receipt of the second-level hearing schedule, it is the responsibility of the Transportation Manager, Assistant Transportation Manager and respective Labor Relations Representative to meet and review cases to validate required Hearing Packet documents.

Two sets of Hearing Packets for each hearing should be provided to the Grievance Hearing Officer no later than one week prior to the scheduled date.

Transportation Managers and the Labor Relations Representative should ensure that all applicable supporting documents are available for the hearing. The Hearing Packet documents may include, but are not limited to:

- 2nd Level Appeal Summary Letter
- Notice of Hearing (if applicable)
- Notice of Disciplinary Action
- Notice of Training
- HR Discipline, Training, Attendance, and Miss-out records
- 1st Level Accident Review Board Decisions & notes
- Accident report (Safe 3)
- Witness C[redacted]t Report (OCS

11.

12. 1)
13. Original photos
14. DVR and audio or visual recordings
15. Accident scene diagram or sketch
16. Police report (if applicable)
17. Attending Physician Statements (if applicable)
18. Laboratory Reports (if applicable)
19. EAP or SAP referral forms (if applicable)
20. Additional items related to this accident

VIII. POST ACCIDENT TRAINING

Training guidelines are established to inform and instruct employees on the proper methods to avoid collisions, passenger injuries, or pedestrian accidents. Operators involved in an accident coded Type 10 through 681 will be scheduled to receive a Line Ride within seven (7) working days of the date of the incident/accident. Accidents shall follow an 18 month training schedule established to prevent future occurrences. Training topics should include current laws and regulations, defensive driving, accident prevention, emergency procedures, or passenger loading and unloading. Lesson plans for training will be developed by OCI and monitored through the Operations Training Tracking System (OTTS).

schedules, one for "unavoidable" accidents and one for "avoidable" accidents. Therefore, an operator who may be required to take multiple training if involved in several accidents.

Example:
Within 18 months, an operator is involved in 2 avoidable accidents and 2 unavoidable accidents. The operator will be required to take step 1 & 2 for unavoidable and step 1 & 2 for avoidable accidents.

Training Steps	Unavoidable	Avoidable
1	Coaching & Counseling	One-on-One (BTW)
2	Line Ride	2 Day Classroom Instruction
3	1 Day Classroom Instruction	3 Day Combination Classroom/ BTW Instruction*
4	Line Ride with Counseling	
5	One-on-One (BTW)	
6	2 Day Classroom Instruction	
7	3 Day Combination Clas[redacted]ining	

When an operator's record is such that there are a series of accidents/incidents a "fitness for duty" exam will be scheduled through Human Resources to evaluate whether or not there are other factors, e.g. failing peripheral vision or neurological issues that may interfere with the operators' ability to properly drive the bus.

IX. DISCIPLINE GUIDELINES

A. Bus Operators

The following guidelines will be followed when assessing discipline for accidents that occur within an eighteen (18) month floating period* :

1ST Avoidable accident – Written Warning
2ND Avoidable accident – Three (3) Day Suspension
3RD Avoidable accident – Formal Hearing

* If it is deemed that mitigating circumstances which indicate a variation from the above progressive discipline, management must present documentation to the employee in accordance with the Formal Hearing process.

If after being assessed discipline for a first avoidable accident, an operator has a subsequent avoidable accident, the operator shall be assessed the next level of discipline (3 day suspension). If an operator has been assessed the second level of discipline and the operator has another avoidable accident, the operator's record will be reviewed to determine if the 3rd avoidable accident falls within 18 months of the 1st accident. If the last accident occurred within 18 months of the 1st accident, the operator is subject to a Formal Hearing. If the last avoidable accident is not within the 18 month period, the operator will only be assessed discipline for the level of discipline appropriate for the number of avoidable accidents within those 18 months.

Level of disregard for the rules and standard operating procedures

Length of service

Exte[redacted]*MENT TO DETERMINE IF THE SEVERITY OF THE*

ACCIDENT WARRANTS BY PASSING ONE OR MORE STEPS, WHICH MAY RESULT IN A RECOMMENDATION FOR SEVERE DISCIPLINE UP TO AND INCLUDING DISCHARGE.

Discipline is a process to change behavior and is not meant strictly to punish an operator for wrong-doing. It serves as a warning process in progressive steps that an operator is approaching a situation that may jeopardize his/her job. Hence, in addition to other duties being fulfilled by the Manager / Assistant Manager assessing discipline, it is imperative that the Operator be notified that this is the first, second or third avoidable accident. Should they have the next incremental accident/incident, they need to be notified, in writing, and preferably written out on t

ified that there is an employee assistance program for issues or concerns outside of the job where someone can get help. Operators should be provided with the self-referral brochure at the time of counseling and charging for the incident. (See Section "C." below for detailed procedures).

B. Probationary/Student Bus Operators

In accordance with the Memorandum of Understanding (MOU) established by OCI for probationary/student bus operators, a three (3) day suspension will be assessed for the 1st avoidable accident. At the discretion of management, a probationary/student may be discharged after the 1st avoidable accident if deemed to be caused by gross negligence or if the accident resulted in serious injury or major damage to vehicles or property. Student/probationary bus operators will be discharged after a 2nd avoidable accident whether or not the accidents are considered to be major.

C. Detailed Discipline Procedures

I. Unavoidable accidents will be sent to file & Transitsafe™ shall be updated with the record of decision.

II. Summary book is updated:
Green for UA and Red for Avoidable accidents.

III. Based on the SERIOUSNESS OF THE ACCIDENT (FATALITY, BLATENT NEGLIGENCE, ETC.) the Operator MAY BE SUBJECT TO TERMINATION.

IV. Accidents to be charged (applies to minor damage & possible injury type incidents alone for progressive discipline):

A. Assistant Manager prepares Notice of Disciplinary Action for 1st Avoidable Accident

1. Call Operator in and insure that the operator understands the progression of discipline as described in the contract.
   "This is your first avoidable accident in a less than 18 month period. If you have another avoidable accident in less than the 18 month period you may be subject to a possible suspension or termination depending upon the serious nature of the accident."
2. Assess a Warning for the first avoidable accident; update HRMIS.
3. Have the operator sign and acknowledge receipt of the discipline.
4. Set up operator for training required for the first step – 1 on 1.
5. Issue notice to mark-up and have mark-up sign that they have recorded the entry all operating credentials with them.

7. Attach to file copy of disciplinary action a copy of the HRMIS record denoting the accident.

B. Assistant Manager prepares Notice of Disciplinary Action for 2nd Avoidable Accident

1. Call Operator in and insure that the operator understands the progression of discipline as described in the contract.
   "This is your second avoidable accident in a less than 18 month period. If you have another (3rd) avoidable accident in less than the 18 month period you may be removed from service and required to attend a formal hearing. The outcome of the hearing could subject you to a possible more severe suspension or termination depending upon the serious nature of the accident."

2. Assess a 3-day suspension for the 2nd avoidable accident; update HRMIS.

3. Have the operator sign and acknowledge receipt of the discipline.

4. Set up operator for training required for the second step – Core Driving Skills.

5. Issue notice to mark-up and have mark-up sign.

6. Issue notice to operator and acknowledge by signing the form that the operator understands that they are required to attend the class and sign-in on the form provided at OCI. They are to be in full uniform and carry all operating credentials with them.

7. Attach to file copy of disciplinary action a copy of the HRMIS record denoting the accident.

8. Ide[redacted]ad dates off and indicate a return to work date.

(e.g. Tuesday April 11, 2010, Wednesday, April 12, 2010, Thursday April 13, 2010, ***RETURN TO WORK*** *Friday, April 14). The Assistant Manager shall sign and date the time off slip.*

c. Have the Operator acknowledge receipt of the Time-Off Notice by placing initials under the Assistant Manager's signature.

d. Provide a copy and have Mark-up acknowledge receipt of the notice.

C. Assistant Manager prepares Notice of Disciplinary Action for 3rd (or more) Avoidable Accident(s)

1. Preparing hearing notice and follow notification and time requirements spelled out in Article 27 of the contract.

2. When issuing Notice of Formal Hearing and attached package of documentation, statement of charge, operator record, etc., make sure that the Operator's current address and phone number is recorded on the form.

3. Hold the hearing as scheduled with the UTU representative and the Operator.

4. Make the determination of the appropriate discipline to apply.

V. Appeal of Decision to 2nd Level Review

A. Operators have a right to appeal discipline applied to a second level Accident Review Board

B. The second level ARB comprises the charging Mana-

2nd Level Hearing is to be held.
The notification should also require that the Operator fill out a miscellaneous stating whether or not they will attend the proceedings. Even though this is largely a Union responsibility it often helps in making the determination either to proceed with the hearing or to reschedule based on the expressed desire of the operator involved to attend.

2. Hearing Letter
    a. Statement describing incident date, vehicle inv[redacted]cident and

indicate why the accident was charged.

e. Provide the following materials as part of the package:
    i. Copy of Operator Accident Report.
    ii. Copy of Operator License, credentials, etc.
    iii. Copy of paddle.
    iv. Copy of Notice of Disciplinary Action form for this incident.
    v. Copy of Time off.
    vi. Notice.
    vii. Copy of Training.
    viii. Copy of ARB FIRST LEVEL ACCIDENT REVIEW BOARD DECISION FORM for each ARB member.
    ix. Copy of ARB FIRST LEVEL REVIEW BOARD NOTES for each ARB member.
    x. Copy of Notice to Operator for FIRST LEVEL ACCIDENT REVIEW BOARD.

xi. Copy of diagrams, pictures, video, witness statements, police reports and other information gathered as a result of the investigation.

xii. Copy of Vehicle Operations Supervisor Report.

xiii. Copy of Operator's vehicle condition card report.

xiv. Copy of Police Report, if available.

xv. Copy of the Operators HRMIS record.

xvi. Copy of the ARB Package review and cover sheet checklist.

xvii. Copy of Equipment Damage Report, if available.

VI. Post 2nd Level ARB

A. Depending on the outcome of the hearing you may be sustained or the decision may be reversed.

B. If the decision is reversed, update the HRMIS record as well as Transitsafe™.

C. Send e-mail confirmation to the Hearing Officer that the change has been made. Retain a copy of the transmittal for your record.

X. KEY TERMS

For a complete listing of transit terms refer to the Bus Operator Rulebook & SOPs.

ACCIDENT:
An unplanned incident involving Metro vehicles, property, or employees that results in actual or potential damage to people, property, or vehicles (e.g. collisions, passenger injuries, pedestrian injuries).

AVOIDABLE:
An accident that is classified as such only after an investigation determines the operator of the Metro vehicle could have taken reasonable action that may have prevented the accident from occurring in accordance with Metro's established rules, SOPs, and policies.

BUS OVER LINE (BOL):
A Metro training practice of providing directions and safety information to the bus operators on established routes for the purpose of qualifying them on the route/line.

D. HR Drug & Alcohol Policy

C. Bus Operator Rulebook & SOPs

B. Collision Classification Reference Guide

A. Transitsafe™ procedures

XI. REFERENCES

An accident that could not have been prevented by reasonable actions.

UNAVOIDABLE:

to bus operators while operating a bus.

A training method of observation and training by Certified Instructors to evaluate and

T ON T TRAINING:

while in revenue service.

A method used by Certified Instructors to observe, instruct, and document bus opera

LINE RIDE:

(See the definition for Accident).

INCIDENT:

incidents.

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Appendix H: Rail Transportation Instruction Training Matrix

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
GENERAL CLASSES						
New Equipment/System Training	Train Operators/ RTOS'	Introduction to new equipment, system extensions, system modifications, new lines, procedural changes, etc.	Training includes: • Identification of new or modified function, equipment or procedure certification	Dependent on scope of new systems, equipment and procedures	One Time	Additional Qualification **Prerequisite:** Prior certification on line, vehicle or pre-modified equipment
Post-Accident/ Incident	Train Operators/ RTOS'	Job specific training focuses on the incident or accident.	Retraining may include: • Equipment Operation • Rules and Procedures Mainline/Yard Operation	2 – 8 Hours	One Time	Verification of Rules and SOP's
ProTran	Rail Personnel/ Contractors	Train employees on ProTran equipment and requirements.	Training includes: • Equipment & Set Up • Rules and Procedures	1 Hour	One Time	Required to emphasize Metro's Rules & SOP's
Radio Class	Rail Personnel/ Contractors	Train personnel to communicate with the Proper Authority.	Training includes: • Equipment • Rules & Procedures • Practical exercise	1 Hour	One Time	Rule Adherence
Rail System Safety, LR & HR	Rail Employees, Contractors, Outside Agencies	Safety training for personnel working within the Metro Rail System on Light and Heavy Rail lines. Training may be incorporated into other training programs.	Training includes: • Rules & Procedures • Electronic Device Policy • High voltage hazards • Personnel on the ROW • Terrorism awareness • Vehicle movement	2 Hours	Once every 24 months	Required by CPUC, GO 143-B, Section 13.03
Rail Transit Sustainability (RTS)	Train Operators and RTOS'	Training review of rules and procedures for Train Operator Certification and DOT Verified (VTT) compliance and Sustaining safe operations in Rail Transit delivery.	Review of rules, procedures & policies: • Rail Safety & WWP • Electronic Video Monitoring • Rail Signal compliance • ADA, Customer Service • Defensive Operation • Vehicle Troubleshooting	8 Hours	Annual	Train Operator Recertification and DOT BP License Requirement and CEO mandated safety training. **Prerequisite:** Train Operator Certification

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Rail Transit Training	Train Operators and RTOS'	Training review of rules and procedures for Train Operator Certification and DOT verified (VTT) compliance.	Review of rules, procedures & policies: • Rail Safety, WWP • ADA, Customer Service • Defensive Operation • Vehicle Troubleshooting • 1-on-1 as needed	8 Hours	As approved by RTI Director	Train Operator Recertification and DOT BP License Requirement **Prerequisite:** Train Operator Certification
Remedial Training	Train Operators and RTOS'	To review procedures and functions of current job function. Emphasize areas of deficiency.	Training includes: • Overview of job responsibilities • Monitor and Evaluate for job proficiency • Retrain and Test	4 hours – 5 days	As Requested	Additional Qualification
Return To Work (RTW)	Train Operators and RTOS'	Training review of rules, procedures and responsibilities of job specification.	Training may include: • Physical Agility • Sign-for documents • Rules and Procedures • Train & Yard Operation • Vehicle Troubleshooting • Signal Test • Classroom, OJT	Abs 60 Days = 8 hrs. Abs 90 Days = 16 hrs. Abs > 90 days = 1 – 3 weeks	One Time	RTOS or Train Operator Recertification **Prerequisite:** RTOS or Train Operator certification
Rule Book	Rail Personnel	Introduction to the Metro Rail System Book of Operating Rules and Procedures for new rail employees.	Review rules and procedures; rule book format; emphasis on rail employee responsibility and safety. How to properly update rule book and procedures.	1 Hour	One Time	Rule Adherence
Wayside Worker Protection (WWP)	All Wayside Employees (Employees, Contractors and Outside Agencies)	Safety training for personnel working on the ROW of any Metro Rail Line. Training may be incorporated into other training programs.	Training includes: • Rules and procedures • Protection of personnel from vehicle movement • Hand/Audible Signals • Types of On-Track Protection • Flag set-up • Documentation	4 hours	Once	Required by CPUC, GO 175 **Prerequisite:** Rail System Safety LR & HR

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Wayside Worker Protection Recertification	All Wayside Employees (Employees, Contractors and Outside Agencies)	Safety training for personnel working on the ROW of any Metro Rail Line. This includes renewal of Rail System Safety Certification.	Training includes: • Rules and procedures • Protection of personnel from vehicle movement • Hand/Audible Signals • Types of On-Track Protection • Flag set-up • Documentation • Rail System Safety	4 hours	Once every 24 months	Required by CPUC, GO 175 **Prerequisite:** Rail System Safety LR/HR and Wayside Worker Protection Certification
CCTV OBSERVERS						
Closed Circuit Television Observers Basic Training (CCTV BASIC)	CCTV Observers/ CCTV Observer Supervisors	Train new CCTV Observers in required job functions.	Training includes: • Station Familiarization • Safety Hazards • Rules and SOPs • Emergency Notifications • Station Familiarization • ROC Equipment Training	5 Weeks Total 2 weeks (class & field) 3 weeks (OJT)	One Time	CCTV Observer Certification **Prerequisite:** NONE
FIRST RESPONDERS						
Fire Department Safety Training	Fire Department Personnel	Rail familiarization for Fire Department personnel.	Training includes: • Rail System Safety • Emergency Procedures • Agency Notification • Vehicle training • May include Station & EMP training	4 – 8 Hours	One Time	Rail Familiarization
Law Enforcement Safety Training	Law Enforcement Personnel: LAPD, LASD, LBPD	Rail familiarization for Law Enforcement personnel.	Training includes: • Rail System Safety • Emergency Procedures • Agency Notification • Approved videos of past incidents • May include vehicle & station familiarization	4 – 8 Hours	One Time	Contract & Safety Requirements

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
RTOS - GENERAL						
RTOS Basic Training	New RTOS	Train new RTOS with the basic concepts and responsibilities on being a supervisor.	Training includes: • RTOS Expectations • Metro Policies • Training Requirements • System Access/E-mail	1 Week	One Time	Additional Qualification
Technical Field Training (TFT)	New RTOS	Provide RTOS with system and equipment familiarization on all Metro Rail Lines.	Training includes: • Equipment & Systems • EMP/Ventilation • Classroom and field	2 Weeks	One Time	Prerequisite for RTOS Basic classes **Prerequisite:** NONE
RTOS - CONTROLLER						
Controller Basic, Core Training	RTOS	Train new Controllers for the Blue/Expo, Gold, Green, Crenshaw or Red Line.	Training Includes: • Rules and Procedures • Equipment & Systems • Mainline Operation • Failure Management • Emergency Response • Notification & Documentation • Traction Power • WWP	2 Weeks	One Time	Prerequisite for Controller Certification **Prerequisite:** Technical Field Training (TFT)
Controller Basic, OJT Training	RTOS	Train new Controllers with hands on experience by working 1-on-1 with a Certified Controller.	Training Includes: • Comm. Control exp. • Train Control • Failure Management • Setting on/off Hi-Rails • Documenting all work at the console • Implementing WWP • Traction Power Procedures • Ventilation Procedures • Line Specific training	8 Weeks	One Time	Controller Certification (On 1 Line) **Prerequisite:** Controller Basic, Core Training

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Controller Cross Training, Blue/Expo Line or Gold Line	Controller	Train a qualified Controller on the Blue/Expo or Gold Line.	Training includes: • SCADA system • Train Routing • Equipment & Systems • Ventilation Response • Alarm Response	3 Weeks	One Time	Blue/Expo Line or Gold Line Controller Certification **Prerequisite:** Current Controller Certification
Controller Cross Training, Green Line	Controller	Train a qualified Controller on the Green Line.	Training includes: • SCADA system • CTC System • Train Routing • Equipment & Systems • Alarm Response	2 Weeks	One Time	Green Line Controller Certification **Prerequisite:** Current Controller Certification
Controller Cross Training, Crenshaw Line	Controller	Train a qualified Controller on the Crenshaw Line.	Training includes: • SCADA system • Train Routing • Equipment & Systems • Ventilation • ONYX Fire Life Safety • Alarm response	2 Weeks	One Time	Crenshaw Line Controller Certification **Prerequisite:** Current Controller Certification
Controller Cross Training, Red/Purple Line	Controller	Train a qualified Controller on the Red/Purple Line.	Training includes: • TRACS system • Train Routing • Equipment & Systems • Ventilation • Fire Life Safety • Alarm response	4 Weeks	One Time	Red Line Controller Certification **Prerequisite:** Current Controller Certification
Controller Recertification	Controller	Review procedures and functions of RTOS Controller.	Review & Test: • Controller SOP's • Equipment & Systems • Failure Management • Emergency Response	4 – 8 Hours	Once Every 2 Years	Controller Certification **Prerequisite:** Previously Certified Controller

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
RTOS- FIELD						
Field Supervisor Training	RTOS	Train RTOS on duties of Field Supervision and familiarization with Metro System.	Training includes: • Field Supervisor SOP's • Equipment & Systems • EMP/Ventilation • Elevators/Escalators • Mainline Response • 1-on-1 w/Instructor & OJT	1 Week OJT per line	One Time	Field Supervisor Certification **Prerequisite:** Technical Field Training (TFT)
RTOS - YARD						
Yard Controller, Basic Training	RTOS	Train RTOS on duties and responsibilities of Yard Controller.	Training Includes: • Rules and Procedures • Equipment & Systems • Failure Management • HASTUS • Emergency Response • WWP • Notification & Documentation	1 Week		Yard Controller Certification **Prerequisite:** Technical Field Training (TFT)
Yard Controller, HASTUS Training	RTOS	Train RTOS on basics of HASTUS.	Training includes: • Icons & Functions • Processing an absence • Splitting an assignment • Processing OT & miss outs • Printing reports for pay package	1 Week	One Time	Additional Qualification
Yard Controller – Windows Training	RTOS	Train RTOS on duties and responsibilities of Yard Controller.	Training includes: • Yard Operations • Implementing Yard Allocation • 1-on-1 with OJT	6-8 Weeks	One Time	Yard Controller Windows Certification **Prerequisite:** Yard Controller, Basic Training
Yard Controller – Mark-Up Training	RTOS	Train RTOS on duties of Mark-Up.	Training includes: • Marking the Board • HASTUS • 1-on-1 with OJT	3 Weeks	One Time	Yard Controller Mark-Up Certification **Prerequisite:** Yard Controller Windows Certification

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
TRAIN OPERATOR						
Train Operator Basic, Core Training	Train Operator	Prepare Bus Operators and RTOS to operate rail vehicles on the Metro Rail System.	Training includes: • Rules and Procedures • System Familiarization • Signal Systems • Rail System Safety LR & HR • WWP • Tour of Mainline • TSI & Metro Online Training	4 Weeks	One Time	Prerequisite for Train Operator Certification **Prerequisite:** NONE
Train Operator Basic, Blue Line	Train Operator	Train student Train Operators and RTOS to operate LRV's on the Metro Blue Line.	Training includes: • Train Operator SOP's • Yard/Line Familiarization • Vehicle equipment (3 Vehicles) • Troubleshooting • Defensive Operations • Yard/Mainline Operation • 1-on-1 w/Instructor for 5-10 hours of operating time • 1-on-1 w/Line Instructor for 40 hours of operating time	6 Weeks Total 2 Weeks (Classroom) 4 Weeks (1-on-1 OJT)	One Time	Train Operator Blue Line Certification **Prerequisite:** Train Operator Basic - Core
Train Operator Basic, EXPO Line	Train Operator	Train student Operators and RTOS to operate LRV's on the Metro Rail EXPO Line.	Training includes: ▪ Train Operator SOP's ▪ Yard/Line Familiarization ▪ Vehicle equipment (3 vehicles) ▪ Troubleshooting ▪ Defensive Operations ▪ Yard/Mainline operation ▪ 1-on-1 w/Rail Instructor for 5-10 hours of operating time ▪ 1-on-1 w/Line Instructor for 40 hours of operating time	6 Weeks Total 2 Weeks (Classroom) 4 Weeks (1-on-1 OJT)	One Time	Train Operator Expo Line Certification **Prerequisite:** Train Operator Basic - Core

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Train Operator Basic, Green Line	Train Operator	Train student Operators and RTOS to operate LRV's on the Metro Rail Green Line.	Training includes: ▪ Train Operator SOP's ▪ Yard/Line Familiarization ▪ Vehicle equipment (2 vehicles, ATO/MTO) ▪ Troubleshooting ▪ Defensive Operations ▪ Yard/Mainline operation ▪ 1-on-1 w/Rail Instructor for 5-10 hours of operating time ▪ 1-on-1 w/Line Instructor for 40 hours of operating time	6 Weeks Total 2 Weeks (Classroom) 4 Weeks (1-on-1 OJT)	One Time	Train Operator Green Line Certification **Prerequisite:** Train Operator Basic - Core
Train Operator Basic, Gold Line	Train Operator	Train student Operators and RTOS to operate LRV's on the Metro Rail Gold Line.	Training includes: ▪ Train Operator SOP's ▪ Yard/Line Familiarization ▪ Vehicle equipment (2 vehicles) ▪ Troubleshooting ▪ Defensive Operations ▪ 2 Yards/ Mainline operation ▪ 1-on-1 w/Rail Instructor for 5-10 hours of operating time ▪ 1-on-1 w/Line Instructor for 40 hours of operating time	6 Weeks Total 2 Weeks (Classroom) 4 Weeks (1-on-1 OJT)	One Time	Train Operator Gold Line Certification **Prerequisite:** Train Operator Basic - Core
Train Operator Basic, Crenshaw Line	Train Operator	Train student Operators and RTOS to operate LRV's on the Metro Rail Crenshaw Line.	Training includes: ▪ Train Operator SOP's ▪ Yard/Line Familiarization ▪ Vehicle equipment (2 vehicles) ▪ Troubleshooting ▪ Defensive Operations ▪ Yards/ Mainline operation ▪ 1-on-1 w/Rail Instructor for 5-10 hours of operating time ▪ 1-on-1 w/Line Instructor for 40 hours of operating time	6 Weeks Total 2 Weeks (Classroom) 4 Weeks (1-on-1 OJT)	One Time	Train Operator Crenshaw Line Certification **Prerequisite:** Train Operator Basic - Core

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Train Operator Basic, Red/Purple Line	Train Operator	Train student Operators and RTOS to operate HRV's on the Metro Rail Red Line.	Training includes: ▪ Train Operator SOP's ▪ Yard/Line Familiarization ▪ Vehicle equipment (1 vehicle, ATO/MTO) ▪ Troubleshooting ▪ Defensive Operations ▪ Yard/ Mainline operation ▪ 1-on-1 w/Rail Instructor for 5-10 hours of operating time ▪ 1-on-1 w/Line Instructor for 40 hours of operating time	6 Weeks Total 2 Weeks (Classroom) 4 Weeks (1-on-1 OJT)	One Time	Train Operator Red Line Certification **Prerequisite:** Train Operator Basic - Core
Train Operator Cross Training	Train Operator	To train operators who transfer to another rail line.	Training is line specific: • Rules & procedures • Vehicle Equipment • Yard Operation • Mainline Operation	2 – 4 Weeks	One Time	Train Operator Line Certification **Prerequisite:** Train Operator Basic - Core
Vehicle Troubleshooting	Train Operator	Review troubleshooting techniques. Training may be one on one or incorporated into a class.	Training includes: • Vehicle features • Indications • Troubleshooting	2 – 4 Hours	As Needed	Vehicle Certification
Line Instructor Program (LIP)	Train Operator	Train a qualified Train Operator on duties and responsibilities of a Line Instructor.	Training includes: • ARB Training • How to perform evaluations • Report writing • Review of Rules & SOPs • Troubleshooting techniques • How to Instruct effectively	1 week	One Time	Line Instructor **Prerequisite:** Previously certified Train Operator

COURSE TITLE	ATTENDEES	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
WAYSIDE						
Hi-Rail Certification Course	All Wayside employees who operate or pilot Hi-Rail vehicles or On Track Equipment	Train Operator certification for Hi-Rail vehicles.	Train new Hi-Rail operator on: • Rules & Procedures • Safety Recertification • Mainline Operation • Radio Communications • Manual Block Procedures • Signal Training • Wayside Worker Protection	16 Hours	One Time	Hi-Rail Train Operator Certification **Prerequisite:** None
Hi-Rail Recertification Course	All Wayside employees who operate or pilot Hi-Rail vehicles or On Track Equipment	Train Operator recertification for Hi-Rail Vehicles.	Train includes: • Rules & Procedures • Safety Recertification • Radio Communications • Manual Block • Wayside Worker Protection • Signals review & test	8 Hours	Once Every 24 months	Hi-Rail Operator Recertification **Prerequisite:** Hi-Rail Certification

Appendix I: Operations Central Instruction Training Matrix

Operations Central Instruction Training Matrix

ATTENDEES	COURSE TITLE	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
New Hire PT/FT Bus Operators	Basic Training	Train new Bus Operators to Obtain CDL Class BP Prepares bus operators to operate on the Metro Bus System	Training includes: • Classroom Instruction • CDL Training • Behind the Wheel-On Street • Route Training • Rule and SOPs • Vehicle, Defensive Driving • Bus Equipment Training	6 weeks OCI 4 to 5 Weeks Division Line Instruction	One Time	Certification Course Basic Training Program Prerequisite: CDL Class BP Permit
Full Time Bus Operators	Post-Accident/Incident	Job specific training focuses on the incident or accident	Training includes: • Classroom Instruction • Behind the Wheel-On Street • Rule and SOPs • Vehicle, Defensive Driving • Bus Equipment Training	1 to 5 Days	As Needed	Verification of Rules and Operation Prerequisite: Bus Operator Certification
Line Instructors Bus Operators Only	Line Instructor Basic Training	DOT Instruction Certification Course for Bus Operators	Training includes: • Classroom Instruction • Instructing Behind the Wheel • Instructing on Route Training • Instructing Bus Equipment • Vehicle, Defensive Driving Skills • Acquire DOT & OCI Certification	6 Weeks	One Time	DOT Transportation Safety Institute & OCI Certification Course Prerequisite: 5years Bus Operator Experience
Bus Operator Return to Work (STS)&(LTS)	Bus Recertification/ Return To Work	Training review of rules, procedures and operation for Bus operator recertification. Over a leave of 18 months or more, will return for 4-week training.	Training includes: • Classroom Instruction • Behind the Wheel	2-3 Weeks	One Time	Bus Operator Recertification Prerequisite: Bus Operator Certification
Bus Operator Terminated Reinstatement	Basic Training	Training review of rules and procedures for Bus Operator recertification and DOT Verified Transit Training (VTT) compliance	Training includes: • Classroom Instruction • Behind the Wheel-On Street • Vehicle, Defensive Driving • Bus Equipment Training	4 Weeks	One Time	Rule & Policy Adherence Prerequisite: Current CDL

Bus Operator / Supervisors; CDL Only	Verification Transit Training Reinstatement (VTT)	Training review of rules and procedures for recertification and DOT Verified Transit Training (VTT) compliance	• Training includes: • Classroom Instruction • Behind the Wheel on Street • Rules and Procedures • Yard Familiarization	7 Days	As Needed	Rule & Policy Adherence Prerequisite: Current CDL

Operations Central Instruction Training Matrix

ATTENDEES	COURSE TITLE	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Newly Hired Mechanics "C" Logistics MOW	Basic CDL Training	Train Newly Hired Mechanics "C" CDL Class AP Vehicle Familiarization	Training includes: ■ Classroom Instruction ■ Behind the Wheel-On Street ■ Vehicle, Defensive Driving ■ Bus Equipment Training ■ Obtain CDL Class AP	3 Weeks 2 Weeks 2 Weeks	Once	CDL License Course Basic Training Program Prerequisite: CDL Class AP Permit
Newly Hired Service Attendants	Basic Training	Train Newly Hired Service Attendants, Vehicle Familiarization	Training includes: ■ Classroom Instruction ■ Vehicle Equipment ■ Behind the Wheel Yard Only ■ Rules and Procedures ■ Yard Familiarization	3 Days	One Time	Prerequisite: Class C License Vehicle Familiarization, Rule & Policy Adherence
Goodyear Personnel Contractor	Basic Training	Train Newly Hired, Contracted for Tire Maintenance Vehicle Familiarization	Training includes: ■ Vehicle Equipment ■ Behind the Wheel Yard Only ■ Rules and Procedures ■ Yard Familiarization	2 days.	One Time	Prerequisite: Class C License Vehicle Familiarization, Rule & Policy Adherence

Electrical Communications Tech (ECT) Personal	Basic Training	Job specific training focuses on Vehicle Familiarization only	■ Training includes: ■ Vehicle Equipment ■ Behind the Wheel Yard Only ■ Rules and Procedures ■ Yard Familiarization	2 Days	One Time	Prerequisite: Class C License Vehicle Familiarization Rule & Policy Adherence
METRO Paint & Body Shop Personal	Basic Training	Job specific training focuses on Vehicle Familiarization only	■ Training includes: ■ Vehicle Equipment ■ Behind the Wheel Yard Only ■ Rules and Procedures ■ Yard Familiarization	3 Days	One Time	Prerequisite: Class C License Vehicle Familiarization Rule & Policy Adherence
Rail Track & Power	Basic CDL Training	CDL Class A Vehicle Familiarization	Training includes: ■ Classroom Instruction ■ Behind the Wheel-On Street ■ Vehicle, Defensive Driving ■ Obtain CDL Class A	2 Weeks	One Time	CDL License Course Basic Training Program Prerequisite: CDL Class A Permit
Vault Truck Driver	Basic CDL Training	CDL Class B Vehicle Familiarization	Training includes: ■ Classroom Instruction ■ Behind the Wheel-On Street ■ Vehicle, Defensive Driving ■ Obtain CDL Class B	2 Weeks	One Time	CDL License Course Basic Training Program Prerequisite: CDL Class B Permit

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

Operations Central Instruction Training Matrix

ATTENDEES	COURSE TITLE	COURSE DESCRIPTION	LEARNING OBJECTIVES	DURATION	FREQ.	COURSE MANDATE
Transportation Operations Supervisor (Division & OCI Instruction)	Instruction Basic Training/TSI Training	DOT Instruction Certification Course for Supervisors	Training includes: • Classroom Instruction • Instructing Behind the Wheel • Instructing on Route Training • Instructing Bus Equipment • Vehicle, Defensive Driving Skills • Acquire DOT & OCI Certification • VTT Desk • VTT Records • Accident Investigation • Transit Safe & VAMS • Logs	14 Weeks	One Time	Supervisor Certification Prerequisite: 5years Bus Operator Experience
Vehicle Operations Supervisors (VO) Rail TOS	DOT/TSI Fundamentals Bus Collision Investigation	Train new TOS VO to perform accident investigation and function as On-Scene Coordinators	Training includes: • Classroom Instruction • Field Supervisor Procedures • Review of Control Priorities • Report Writing w/ Diagram • Practical Exercise	2 Weeks 1 Week	One Time	Supervisor Certification Prerequisite: None

Appendix J: State Safety Oversight Elements within PTASP

Appendix K: (Reserved for Future Use)

Appendix L: National Public Transportation Safety Plan

National Public Transportation Safety Plan

April 2024

Version 2

U.S. Department of Transportation

Federal Transit Administration

Version 1.4 Effective January 2025

Table of Contents

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. Recipients and subrecipients should refer to FTA's statutes and regulations for applicable requirements.

Executive Summary

Safety is the number one priority of the United States Department of Transportation (USDOT) and Federal Transit Administration (FTA). The purpose of the National Public Transportation Safety Plan (National Safety Plan) is to guide the national effort to manage safety risk in our nation's public transportation systems. This update continues to mature FTA's national safety program and addresses new requirements in the Bipartisan Infrastructure Law, enacted as the Infrastructure Investment and Jobs Act, to further advance transit safety.

This plan supersedes the plan that FTA published in January 2017. It lays out a performance-based approach to reduce injuries and fatalities on transit systems under FTA's safety jurisdiction. This plan also supports the USDOT's long-term goal of reaching zero fatalities on America's roadways, as presented in the January 2022 National Roadway Safety Strategy, by adding safety performance criteria for vehicular collisions and providing voluntary standards for bus transit.

This plan includes:

- Safety performance criteria for all recipients that must develop Agency Safety Plans under FTA's Public Transportation Agency Safety Plan (PTASP) regulation, 49 CFR part 673, including safety performance measures related to the PTASP safety risk reduction program (see Chapter II); and

- Voluntary minimum safety standards and recommended practices to support mitigation of safety risk and to improve safety performance (see Chapter III), including:

  - Recommendations issued by the National Transportation Safety Board (NTSB),

  - Recommended practices and standards developed by the transit industry, and

  - Recommended precautionary and reactive actions to ensure public and personnel safety and health during an emergency established in consultation with the Secretary of Health and Human Services.

Introduction

Safety is the top priority of both the USDOT and the FTA. While transit is already one of the safest modes of transportation, FTA is committed to improving safety even further. FTA is committed to developing, implementing, and consistently improving strategies and processes to ensure that public transportation achieves the highest practicable level of safety and is committed to the USDOT's vision of a future with zero transportation-related fatalities and the elimination of transportation-related serious injuries. Transit should be safe for the passengers using the system, the workers operating the system, and the pedestrians, bicyclists, and all other persons who interact with the system.

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. FTA follows the principles and methods of SMS in its development and revision of this plan, regulations, policies, guidance, best practices, and technical assistance administered under the authority of 49 U.S.C. § 5329.

SMS is a formal, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation.[1] SMS includes systematic procedures, practices, and policies for managing hazards and safety risk. FTA will continue to support the transit industry's implementation of SMS and will continue to use SMS to strengthen its own safety management processes.

Plan Overview

The purpose of the National Safety Plan is to improve the safety of all public transportation systems that receive funding under 49 U.S.C. Chapter 53. FTA uses the National Safety Plan to guide the national effort to manage safety risk in our Nation's public transportation systems. The Bipartisan Infrastructure Law, enacted as the Infrastructure Investment and Jobs Act, adds new elements that must be included in the National Safety Plan, including:

- Safety performance measures related to the PTASP safety risk reduction program;
- In consultation with the Secretary of Health and Human Services, precautionary and reactive actions required to ensure public and personnel safety and health during an emergency; and
- Consideration, where appropriate, of performance-based and risk-based methodologies.

The Bipartisan Infrastructure Law also requires that the minimum safety performance standards for public transportation vehicles used in revenue operations take into consideration, to the extent practicable, innovations in driver assistance technologies and driver protection infrastructure, where appropriate, and a reduction in visibility impairments that contribute to pedestrian fatalities.

The National Safety Plan also acknowledges recommendations made by the NTSB. Chapter III includes, to the extent practicable, voluntary minimum safety standards for public transportation

[1] 49 CFR § 673.5

vehicles and transit operations that take into consideration relevant NTSB recommendations. In addition to the voluntary standards contained in the National Safety Plan, FTA is exploring expanding its regulatory framework to include potential minimum mandatory baseline standards for public transit safety and NTSB recommendations, including those relating to roadway worker protection and fatigue.

The National Safety Plan is organized into three chapters:

- **Chapter I: Keeping Safety the Top Priority –** This chapter presents FTA's safety vision, strategic objectives, and an overview of FTA's National Public Transportation Safety Program; and provides high-level safety performance data related to FTA safety priorities.

- **Chapter II: Safety Performance Criteria –** This chapter defines safety performance measures[2] for transit agencies required to establish and implement Agency Safety Plans under FTA's PTASP regulation, 49 CFR part 673. The chapter identifies 14 safety performance measures for all modes of public transportation and presents eight safety performance measures for the PTASP safety risk reduction program for agencies that serve an urbanized area with a population of 200,000 or more.

- **Chapter III: Voluntary Minimum Safety Standards and Recommended Practices** – This chapter presents voluntary minimum safety performance standards for public transportation vehicles used in revenue operations and voluntary minimum safety standards to ensure the safe operation of public transportation systems, as well as recommended practices that may support the transit industry in assessing and mitigating safety risk and help improve safety performance.

[2] In this plan FTA uses the term "performance measure" as a synonym for "performance criteria," which is used in 49 U.S.C. § 5329(b)(2).

Chapter I: Keeping Safety the Top Priority

FTA's Safety Vision and Strategic Objectives

FTA is committed to its vision of a better quality of life for all built on public transportation excellence and its mission of improving America's communities through public transportation. Enhancing safety by reducing safety events on the Nation's transit systems is integral to achieving this vision. The USDOT Strategic Plan establishes Safety as the top strategic goal for the Department, and emphasizes five objectives: Safe Public, Safe Workers, Safe Design, Safe Systems, and Critical Infrastructure Cybersecurity. In addition, FTA has adopted the principles and methods of SMS to achieve the highest degree of safety. The SMS approach is a formal, organization-wide approach for managing safety risk and assuring the effectiveness of safety risk mitigation.

Areas of Safety Focus

FTA has identified the following five areas of safety focus to guide the implementation of the Federal Public Transportation Safety Program:

- **Transit's role in the community –** Public transportation is on the frontline of many of society's most challenging safety and public health issues, including the Coronavirus Disease 2019 (COVID-19) pandemic, substance abuse, mental health, homelessness, and crime. Transit also advances equity and sustainability in America's communities. Documenting and sharing lessons learned helps the transit community identify and mitigate safety risk to keep passengers and transit workers safe while also advancing opportunity and tackling climate change.
- **Shared responsibility –** Transit safety is a shared responsibility that is coordinated across stakeholders, including government at all levels, labor, industry, nonprofit and advocacy groups, researchers, and the public, to prevent fatalities and serious injuries.
- **Performance-based approach to SMS –** Setting and achieving performance targets and using performance-based standards enhances the SMS approach and supports efforts to identify and mitigate safety risk in transit systems before harmful consequences occur.
- **Data-driven decision-making –** Identifying data relevant to safety, conducting analyses, and developing data-driven conclusions strengthens both the performance of an SMS and the understanding and management of safety risk.
- **Accounting for human factors as part of safety risk mitigation –** Safety risk mitigations developed as part of an SMS should consider and address certain types of human error. This approach recognizes the role of human behavior and works to effectively reduce safety risk for passengers, transit workers, and all who encounter the system.

The National Public Transportation Safety Program

FTA carries out its safety vision, mission, and strategic objectives through the National Public Transportation Safety Program. In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) amended Federal transit law by authorizing a new public transportation safety program at 49 U.S.C. § 5329. FTA's Safety Program was further strengthened in the Fixing America's Surface Transportation (FAST) Act in 2015 and, most recently, in 2021 through the Bipartisan Infrastructure Law. FTA also carries out an Alcohol and Controlled Substances Testing program under 49 U.S.C. § 5331, which was first established in law in the Omnibus Transportation Employee Testing Act of 1991.

FTA follows the principles and methods of SMS in its development and revision of regulations, policies, guidance, best practices, and technical assistance to administer its Safety Program under the authority of 49 U.S.C. § 5329. The following list identifies the main elements of FTA's Safety Program which include:

- **The National Safety Plan** establishes key safety performance measures and identifies voluntary minimum safety standards and recommended practices to mitigate safety risk and improve safety performance across the transit industry.
- **The Public Transportation Safety Certification Training Program (PTSCTP)**, described in FTA's PTSCTP regulation at 49 CFR part 672, establishes a curriculum and provides minimum training requirements to enhance technical proficiency for State Safety Oversight Agency personnel and contractors who conduct safety audits and examinations of rail fixed guideway public transportation systems, and for designated transit agency personnel and contractors who are directly responsible for safety oversight of a recipient's rail fixed guideway public transportation system.
- **The Public Transportation Agency Safety Plan (PTASP) Program,** described in FTA's PTASP regulation at 49 CFR part 673, requires certain transit agencies to develop agency safety plans and establish and implement an SMS.
- **The State Safety Oversight (SSO) Program** for rail transit agencies (RTAs), described in FTA's SSO regulation at 49 CFR part 674, outlines a State Safety Oversight Agency's authority to oversee rail transit agency safety performance.
- **FTA's safety oversight and enforcement authorities**, described in FTA's Public Transportation Safety Program regulation at 49 CFR part 670, establishes substantive and procedural rules for FTA's administration of the Safety Program. Importantly, the rule formally establishes SMS as the foundation for FTA's development and implementation of the Safety Program.

FTA's Safety Program also includes a drug and alcohol compliance program. The Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations at 49 CFR part 655, establishes programs to be implemented by employers that receive financial assistance from FTA and by contractors of those employers, that are designed to help prevent accidents, injuries, and fatalities resulting from the misuse of alcohol and use of prohibited drugs by those performing safety-sensitive functions.

In addition, FTA's Safety Program considers how the condition of transit assets can affect safety performance. In passing MAP-21, Congress recognized the critical relationship between safety and asset condition, requiring the National Safety Plan to include the definition of state of good repair set in the rulemaking for asset management (49 U.S.C. § 5329(b)(2)(B)). The Transit Asset Management (TAM) rule at 49 CFR part 625 defines state of good repair as "the condition in which a capital asset is able to operate at a full level of performance" (49 CFR § 625.5). Both TAM and PTASP emphasize opportunities for transit agencies to share information and analyses, thereby improving decision-making agency-wide to address safety risk.

Finally, FTA's internal Safety Risk Management (SRM) process supports FTA's Safety Program by proactively identifying and addressing safety concerns in the transit industry. FTA uses its SRM process to assess and mitigate industry-wide safety risk using authorities specified in 49 U.S.C. § 5329. FTA also used outputs from this process to support the identification of public transportation safety priorities outlined in this National Safety Plan.

Public Transportation Safety Data

While public transportation fatalities and injuries comprise less than one percent of total casualties on America's surface transportation network,[3] transit fatalities and injuries remain a significant concern for America's communities. Over the last six years, there has been a general increasing trend in the number and rate of major transit safety events and fatalities reported to FTA's National Transit Database (NTD).

Between 2016 and 2021, the U.S. public transportation industry reported an annual average of 9,498 major safety events,[4] 284 fatalities, and 21,066 injuries requiring immediate medical attention away from the scene to the NTD.[5] The tables below present the annual industry-wide counts and rates (per 100 million Vehicle Revenue Miles (VRM)) for these metrics between calendar years 2016 and 2021 as reported by transit agencies to the NTD.

Counts	2016	2017	2018	2019	2020	2021	Annual Average
Major Events	9,988	9,801	10,121	10,522	7,739	8,819	9,498
Fatalities	269	254	263	278	304	334	284
Injuries	23,970	23,144	23,157	23,695	15,742	16,687	21,066

[3] USDOT National Roadway Safety Strategy, page 1.
[4] Major events are defined in the NTD Safety and Security Policy Manual.
[5] These numbers include data reported to the NTD by full and reduced reporters and excludes rail service under the jurisdiction of the Federal Railroad Administration. See the NTD Reporting Manuals for descriptions of reporting thresholds and other information.

Rates per 100M VRM	2016	2017	2018	2019	2020	2021	2016–2021
Major Event Rate	227.90	221.90	227.81	234.69	214.54	238.76	227.72
Fatality Rate	6.14	5.75	5.92	6.20	8.43	9.04	6.80
Injury Rate	546.93	523.98	521.24	528.52	436.41	451.77	505.05

From 2016 to 2021, the U.S. public transportation industry averaged 284 fatalities per year. The fatality rate (per 100 million VRM) has increased in each of the last four years, with the transit industry reporting its highest number of fatalities in 2021, despite reduced service and ridership during the COVID-19 pandemic affecting years 2020 and 2021.

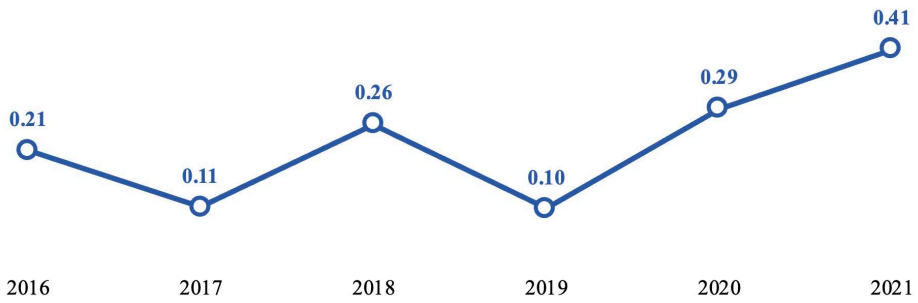
Major event numbers and rates (per 100 million VRM) remained relatively constant but dropped in 2020. Major event counts remained low in 2021, but rates increased above pre-pandemic levels in 2021. Injury numbers and rates (per 100 million VRM) also did not vary considerably between 2016 and 2019 but dropped significantly in 2020. Injury numbers and rates increased in 2021 but were still below 2016–2019 levels.

Public Transportation Safety Concerns

FTA has identified the following significant safety concerns in the transit industry:

1) **Transit Worker Fatalities** – Despite safety risk mitigations put in place to protect transit workers from harm, the transit industry continues to experience workforce fatalities. The chart below shows the transit worker fatality rates (per 100 million VRM) between 2016 and 2021, as reported to the NTD.[6]

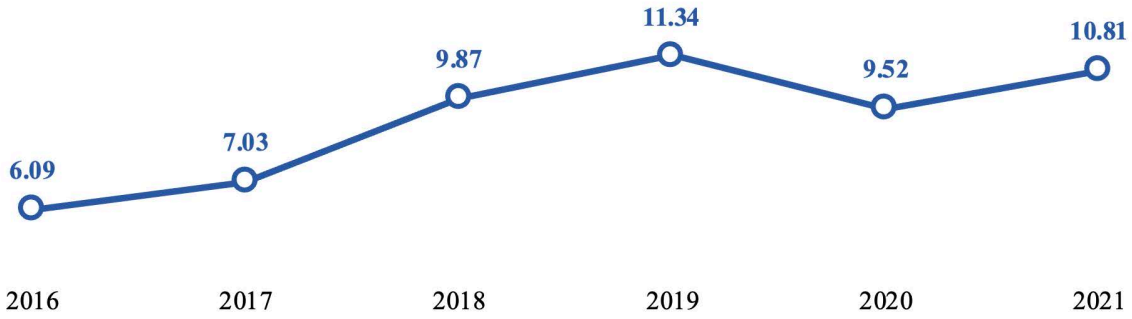
Figure 1: Transit Worker Fatality Rate (per 100M VRM)



[6] See NTD Reporting Manuals for reporting requirements.

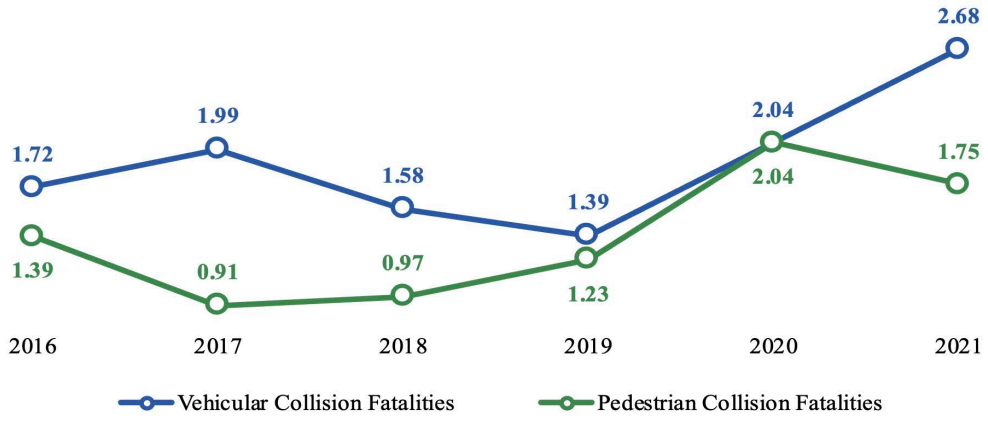
2) **Assaults on Transit Workers** – FTA's internal SRM process has identified assaults on transit workers as a key safety concern for the transit industry. The chart below, which uses data reported to the NTD, depicts a significant increase in the rate of assaults where a transit worker was injured or killed (per 100 million VRM) between 2016 and 2021 across bus and rail transit modes.[7]

Figure 2: Transit Worker Assault Event Rate (per 100M VRM)



3) **Bus Transit Collisions** – The Bipartisan Infrastructure Law requires Section 5307 recipients that serve an urbanized area with a population of 200,000 or more to include in their Agency Safety Plans a safety risk reduction program that, in part, addresses the reduction of vehicular and pedestrian accidents involving buses. The chart below shows bus transit pedestrian and vehicular collision fatality rates (per 100 million VRM) between 2016 and 2021, as reported to the NTD.

Figure 3: Bus Vehicular and Pedestrian Collision Fatality Rates (per 100M VRM)



[7] See NTD Reporting Manuals for reporting requirements.

Chapter II: Safety Performance Criteria

This chapter establishes safety performance measures[8] for all modes of public transportation. Per 49 CFR § 673.11(a)(3), a recipient's Agency Safety Plan must include performance targets based on the safety performance measures established under the National Safety Plan. In addition, the Bipartisan Infrastructure Law requires the Safety Committee of recipients of Urbanized Area Formula funds under 49 U.S.C. § 5307 (Section 5307) that serve an urbanized area with a population of 200,000 or more (large UZA) to set performance targets for their safety risk reduction programs.

The continuous improvement requirements for transit agencies established under the Safety Assurance component of SMS at 49 CFR § 673.27(d) require transit agencies to establish a process to assess safety performance.

Safety Performance Measures for All Agencies Subject to the PTASP Regulation

Safety performance measures help support transit agency safety risk management and safety assurance processes. The Safety Assurance component of an SMS leverages a structured approach of planning, identifying safety performance measures, conducting data analysis, setting safety performance targets, and monitoring safety performance. Safety performance measures provide the basis for continuous safety improvement.

To align safety performance measurement requirements across all agencies subject to the PTASP regulation, the measures outlined in this chapter are based on safety and service data that the NTD collects from applicable agencies. For clarification on NTD reporting requirements and definitions, please refer to the latest NTD Safety & Security Reporting Policy Manual at the NTD Manuals web page.

All transit agencies subject to the PTASP regulation report safety data to the NTD. However, due to NTD reporting requirements, some smaller transit agencies may report less-detailed safety and security event data than larger agencies. Some of the measures defined below use categories that exceed the level of detail these smaller agencies report to the NTD. Where data is not reported to the NTD, agencies should reference internal agency records to identify appropriate data for each measure to support the setting of all required targets.

The previous version of the National Safety Plan identified safety performance measures to support the required PTASP safety performance target setting for all modes of public transportation, identifying seven (7) measures for each mode (or modal group). This updated plan identifies 14 safety performance measures for all transit providers subject to the PTASP regulation. The table below lists each safety performance measure and indicates which performance measures are additions from the previous version of the National Safety Plan.

[8] In this plan FTA uses the term "performance measure" as a synonym for "performance criteria" which is used in statute at 49 U.S.C. § 5329(b)(2).

Safety Performance Measure		Description
1	Measure 1a – Major Events	This includes all safety and security major events as defined by the NTD.
2	Measure 1b – Major Event Rate	This includes all safety and security major events as defined by the NTD, divided by VRM.
3	***Measure 1.1 – Collision Rate (new)***	This includes all collisions reported to the NTD, divided by VRM.
4	***Measure 1.1.1 – Pedestrian Collision Rate (new)***	This includes all collisions "with a person," as defined by the NTD, divided by VRM.
5	***Measure 1.1.2 – Vehicular Collision Rate (new)***	This includes all collisions "with a motor vehicle," as defined by the NTD, divided by VRM.
6	Measure 2a – Fatalities	This includes all fatalities as defined by the NTD.
7	Measure 2b – Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.
8	***Measure 2.1 – Transit Worker Fatality Rate (new)***	This includes all transit worker fatalities as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.
9	Measure 3a – Injuries	This includes all injuries as defined by the NTD.
10	Measure 3b – Injury Rate	This includes all injuries as defined by the NTD, divided by VRM.
11	***Measure 3.1 – Transit Worker Injury Rate (new)***	This includes all transit worker injuries as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.
12	***Measure 4a – Assaults on Transit Workers (new)***	This includes all assaults on transit workers as defined by the NTD.[9]
13	***Measure 4b – Rate of Assaults on Transit Workers (new)***	This includes all assaults on transit workers as defined by the NTD,[9] divided by VRM.
14	Measure 5 – System Reliability	This includes Major Mechanical System failures as defined by the NTD.

[9] Historically, assaults on transit workers were not collected in the NTD as a separate category from other assaults and were not reported if they did not result in a fatality, injury, or other major event threshold. Additionally, the term *transit worker* previously only included paid employees and contractors and excluded volunteers. On February 23, 2023, FTA finalized new NTD reporting requirements that will collect data on all assaults on all transit workers, regardless of injury. Some of these reporting requirements took effect in Calendar Year 2023, while others will take effect in NTD Report Year 2023.

Safety Performance Targets for All Agencies Subject to the PTASP Regulation

The PTASP regulation requires all applicable transit agencies to set safety performance targets based on the safety performance measures established in the National Safety Plan. In this context, the measure defines the data point that an agency will "watch" to monitor safety performance. The target defines the desired level of safety performance over a specified timeframe (e.g., annually). Rates are calculated using VRM, as defined by and reported to the NTD.

In general, a transit agency sets annual safety performance targets that represent its safety performance goals for the coming year. Transit agencies may define their own methodology for setting targets. For example, in its efforts to improve safety an agency may want to improve its own current safety performance or set performance targets based on peer agency benchmarking. Please note that transit agencies that serve a large UZA are subject to additional target setting requirements as part of the safety risk reduction program, as defined in 49 U.S.C. § 5329.

Safety Performance Measures for Safety Risk Reduction Programs

The Bipartisan Infrastructure Law requires Section 5307 recipients that serve an urbanized area with a population of 200,000 or more to include in their Agency Safety Plan a safety risk reduction program for transit operations. These safety risk reduction programs aim to improve safety performance by reducing the number and rates of accidents, injuries, and assaults on transit workers, including:

- a reduction of vehicular and pedestrian accidents involving buses that includes measures to reduce visibility impairments for bus operators that contribute to accidents, including retrofits to buses in revenue service and specifications for future procurements that reduce visibility impairments; and
- the mitigation of assaults on transit workers, including the deployment of assault mitigation infrastructure and technology on buses, including barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators when a risk analysis performed by the transit agency's Safety Committee determines that such barriers or other measures would reduce assaults on transit workers and injuries to transit workers.

The Bipartisan Infrastructure Law directs that performance measures for a safety risk reduction program, required under 49 U.S.C. 5329(d)(4), be included in the National Safety Plan (49 U.S.C. 5329(b)(2)(A)). FTA identifies the below eight measures for the safety risk reduction program. The Safety Committee of applicable transit agencies will use these measures to set targets for the safety risk reduction program, as required by 49 U.S.C. 5329(d) and 49 CFR § 673.19(d)(2). Under the new Bipartisan Infrastructure Law requirements, the Safety Committee must establish these targets using a 3-year rolling average of the data the agency submits to the NTD.

Required Safety Risk Reduction Program Measure		Description
1	Major Events	This includes all safety and security major events as defined by the NTD.
2	Major Event Rate	This includes all safety and security major events as defined by the NTD, divided by VRM.
3	Collisions	This includes all collisions reported to the NTD.
4	Collision Rate	This includes all collisions reported to the NTD, divided by VRM.
5	Injuries	This includes all injuries as defined by the NTD.
6	Injury Rate	This includes all injuries as defined by the NTD, divided by VRM.
7	Assaults on Transit Workers	This includes all assaults on transit workers as defined by the NTD.[10]
8	Rate of Assaults on Transit Workers	This includes all assaults on transit workers as defined by the NTD,[10] divided by VRM.

Some of the performance measures for the safety risk reduction program overlap with the measures for all agencies subject to the PTASP regulation described above. Section 5307 recipients that serve an urbanized area with a population of 200,000 or more may choose to use the target set by the Safety Committee for the safety risk reduction program for both measures, provided the target for the safety risk reduction program is set using a 3-year rolling average of NTD data.

The Bipartisan Infrastructure Law establishes a safety set aside requirement for all Section 5307 recipients that serve a large UZA. These transit agencies must allocate not less than 0.75 percent of section 5307 funds to eligible safety-related projects. As required under the Bipartisan Infrastructure Law and at 49 CFR § 673.27(d)(3)(iii), if an agency fails to meet a safety performance target under the safety risk reduction program, it must allocate its safety set aside in the following fiscal year to eligible projects that are reasonably likely to assist the agency in meeting the target.

[10] Historically, assaults on transit workers were not collected in the NTD as a separate category from other assaults and were not reported if they did not result in a fatality or serious injury, or other major event threshold. Additionally, the term *transit worker* previously only included paid employees and contractors and excluded volunteers. On February 23, 2023, FTA finalized new NTD reporting requirements that will collect data on all assaults on all transit workers, regardless of injury. Some of these reporting requirements took effect in Calendar Year 2023, while others will take effect in NTD Report Year 2023.

Modal Groups: Rail, Fixed Route Bus, and Non-Fixed Route Bus

Transit agencies must set targets for the different modes of transit service they provide. When setting targets based on the safety performance measures for all agencies subject to the PTASP regulation and for the safety risk reduction program, transit agencies should use the following modal groups: rail, fixed route bus, and non-fixed route bus. Using this approach, a transit agency would only set the required targets for three modal groups, regardless of how many individual modes of transit service it reports to the NTD. The following table presents these three modal groups and the individual NTD modes included in each.

Rail	Fixed Route Bus	Non-Fixed Route Bus
¢ Heavy Rail (HR) ¢ Light Rail (LR) ¢ Streetcar (SR) ¢ Hybrid Rail (YR) ¢ Monorail/Automated Guideway (MG) ¢ Inclined Plane (IP) ¢ Cable Car (CC) ¢ Aerial Tramway (TR)	¢ Motorbus (MB) ¢ Commuter Bus (CB) ¢ Bus Rapid Transit (RB) ¢ Trolley Bus (TB) ¢ Publico (PB) ¢ Jitney (JT)	¢ Demand Response (DR) ¢ Vanpool (VP)

Note: The modes above exclude Alaska rail (AR), commuter rail (CR), and ferry boat (FB). The PTASP regulation does not apply to certain modes of transit service that are subject to the safety jurisdiction of another Federal agency, including passenger ferry operations that are regulated by the United States Coast Guard and commuter rail operations that are regulated by the Federal Railroad Administration.

Chapter III: Voluntary Minimum Safety Standards and Recommended Practices

FTA has identified voluntary minimum safety standards and recommended practices for improving public transportation safety. These include safety performance standards for public transportation vehicles used in revenue operations and safety standards to ensure the safe operation of public transportation systems. These standards also further a comprehensive approach to roadway safety within the United States. These voluntary safety standards and recommended practices are provided as resources to support the transit industry in assessing and mitigating safety risk.

To the extent practicable, the voluntary minimum safety performance standards for public transportation vehicles take into consideration relevant recommendations of the NTSB, recommendations and best practices standards developed by the public transportation industry, innovations in driver assistance technologies and driver protection infrastructure, and strategies to reduce visibility impairments that may contribute to pedestrian fatalities.

Similarly, to the extent practicable, the voluntary minimum safety standards to ensure the safe operation of public transportation systems take into consideration relevant recommendations of the NTSB, best practices standards developed by the public transportation industry, minimum safety standards or performance criteria being implemented across the public transportation industry, and recommendations from FTA's Review and Evaluation of Public Transportation Safety Standards report prepared pursuant to Section 3020 of the Fixing America's Surface Transportation (FAST) Act.

FTA strongly encourages transit agencies to review these voluntary minimum safety standards and recommended practices and incorporate them into their operations and maintenance, as appropriate. These standards and practices may help transit agencies improve safety performance in response to the safety performance measures outlined in Chapter II and may support the development of mitigations and strategies to address specific safety concerns identified by the transit agency or its Safety Committee. Further, FTA strongly encourages transit agencies to work with roadway owner(s) to proactively address safety concerns to benefit the riding public, particularly those that reach public transportation through walking, biking, and those that make use of assistive devices including wheelchairs.

The voluntary safety standards and recommended practices included in this chapter include standards developed through research supported by FTA; other Federal agencies, such as the Federal Highway Administration (FHWA) and Federal Railroad Administration (FRA); the American Public Transportation Association (APTA), the designated standards development organization for the public transportation industry; and associations focused on electrical and mechanical engineering practices and technical and safety training, among others. This chapter of the National Safety Plan also includes voluntary safety standards and recommended practices identified by the NTSB to address findings resulting from investigations of major public transportation accidents.

Where safety standards and/or recommended practices have not yet been developed, this chapter identifies useful resources for transit agencies to consider from FTA, the Transit Cooperative Research Program (TCRP) of the Transportation Research Board, FTA's Transit Advisory Committee for Safety (TRACS), and other sources, where applicable.

The National Safety Plan includes 11 categories of voluntary safety standards and recommended practices:

- **Category A: Transit Worker Safety (Bus and Rail Transit)** – to reduce transit worker fatalities and injuries
  - Subcategory A.1: Transit Worker Assault Prevention (Bus and Rail Transit)
  - Subcategory A.2: Roadway Worker Protection (Rail Transit)
  - Subcategory A.3: Fatigue Management, Fitness for Duty, and Employee Distraction (Bus and Rail Transit)
- **Category B: Pedestrian and Bicyclist Safety (Bus and Rail Transit)** – to reduce collisions with pedestrians and bicyclists resulting in fatalities and injuries
- **Category C: Rail Grade Crossing Safety (Rail Transit)** – to reduce rail transit collisions at rail grade crossings resulting in fatalities and injuries
- **Category D: Bus Transit Safety (Bus Transit)** – to reduce bus transit collisions resulting in fatalities and injuries
- **Category E: Tunnel Ventilation and Fire Safety (Rail Transit)** – to reduce the consequences of fire and smoke events in tunnels
- **Category F: Signal System Safety (Rail Transit)** – to improve the performance and reliability of signal systems to control train movement and reduce collisions
- **Category G: Vehicle Safety (Bus and Rail Transit)** – to improve the design and performance of transit vehicles to protect occupants, communicate safety information, and support emergency access and egress
  - Subcategory G.1: Vehicle Crashworthiness and Brake Testing (Bus and Rail Transit)
  - Subcategory G.2: Vehicle End-of-Railcar Door Messaging (Rail Transit)
  - Subcategory G.3: Vehicle Emergency Systems and Fire Safety (Rail Transit)
  - Subcategory G.4: Vehicle Safety Standards and Practices (Bus Transit)
- **Category H: Electronic Recording Devices and Cameras (Rail Transit)** – to support monitoring of transit operations and investigation of safety events
- **Category I: Operations Procedures, Compliance, and Training (Bus and Rail Transit)** – to support compliance with and sufficiency of operations procedures and the training, supervision, and qualification of operations personnel

- **Category J: Maintenance Procedures, Compliance, and Training (Bus and Rail Transit)** – to support compliance with and sufficiency of maintenance procedures and the training, supervision, and qualification of maintenance personnel
- **Category K: Precautionary and Reactive Actions during an Emergency** – to ensure public and worker health and safety during emergencies

Category A: Transit Worker Safety (Bus and Rail Transit)

(To reduce transit worker fatalities and injuries)

Subcategory A.1: Transit Worker Assault Prevention (Bus and Rail Transit)

Vol. 1 – Research Overview and Vol. 2 – User Guide, TCRP
TCRP Report 193 – Tools and Strategies for Eliminating Assaults Against Transit Operators

Considerations for preventing assaults against transit operators and a set of checklists, voluntary guidelines, and methodologies.

Report 14-01, TRACS
Preventing and Mitigating Transit Worker Assaults in the Bus and Rail Transit Industry

Recommendations for reducing assaults.

Subcategory A.2: Roadway Worker Protection (Rail Transit)[11]

Report 0212, FTA
FTA Standards Development Program: Rail Transit Roadway Worker Protection

Research on existing standards and best practices, use cases, a risk assessment matrix, and high-level concepts of operations for roadway worker protection.

APTA RT-OP-S-016-11, APTA
Roadway Worker Protection Program Requirements

Recommendations for formalized safe operating practices as they pertain to work performed on or in proximity to rail transit rights-of-way.

APTA RT-OP-RP-026-20, APTA
Roadway Worker Near Miss Reporting Requirements

Recommendations on the elements that comprise comprehensive near-miss reporting so useful information is gathered and analyzed.

[11] Recommended practices and safety standards in this subcategory also address safety concerns identified by the NTSB in R-13-039, R-13-040, R-14-036, R-14-038, R-14-039 and R-14-040.

APTA RT-OP-S-004-03, APTA
Work Zone Safety Practices

Recommendations on ways to address situations that are present when workers perform routine and emergency work on an operating rail line.

APTA RT-OP-S-010-04, APTA
Contractors' Responsibility for Safety on the Right-of-Way

Recommendations for formalizing contractors' responsibilities for knowing, complying with, and enforcing rail transit system guidelines, rules, and procedures to govern the activities of contractors performing work on or near a rail right-of-way.

Subcategory A.3: Fatigue Management, Fitness for Duty, and Employee Distraction (Bus and Rail Transit)[12]

Fatigue Management

APTA RT-OP-S-015-09, APTA
Standard for Train Operator Hours-of-Service Requirements

Outline of the basic elements of an hours-of-service program that creates the conditions in which train operators have an opportunity to get sufficient rest between work shifts to minimize the impact of fatigue on their job performance.

APTA RT-OP-S-023-17, APTA
Fatigue Management Program Requirements

Recommendations on developing a fatigue management program to mitigate the impacts of fatigue.

Report 14-02, TRACS
Establishing a Fatigue Management Program for the Bus and Rail Transit Industry

Recommendations regarding the components of a successful fatigue management program, including hours of service, shift scheduling, fatigue prevention and awareness training, fitness-for-duty medical evaluations and screenings, work and vehicle environment design, safety culture, incident investigation, and data collection.

[12] Recommended practices and safety standards in this sub-category also address safety concerns identified by the NTSB in R-15-018, R-15-019, R-15-20 and R-15-021.

Fitness for Duty

APTA RT-OP-S-018-12, APTA
Fitness for Duty Program Requirements

Recommendations on developing a fitness for duty program so rail transit systems may formalize measures to hire rail vehicle and on-track equipment operators who are able to perform physical job duties.

APTA RT-OP-S-014-04, APTA
Standard for Train Operating Employees Reporting to Work

Recommendations on conducting readiness reviews of train operators before they begin vehicle operations to allow an extra margin of safety concerning employee fitness and readiness to operate a rail vehicle.

R-09-011, NTSB

Recommendation made to all rail transit agencies to establish a program to identify operators who are at high risk for obstructive sleep apnea or other sleep disorders and require that such operators be appropriately evaluated and treated.

Distraction

APTA RT-OP-S-017 -11, APTA
Electronic Device Distraction Policy Requirements

Recommendations on developing a policy that provides direction as to when and where electronic devices may and may not be used by rail transit system employees.

APTA BTS-BS-RP-005-09, APTA
Reducing Driver-Controlled Distractions While Operating a Vehicle on Agency Time

Recommended practices for reducing operator distractions.

Category B: Pedestrian and Bicyclist Safety (Bus and Rail Transit)

(To reduce collisions with pedestrians and bicyclists resulting in fatalities and injuries)

Design

Improving Safety for Pedestrians and Bicyclists Accessing Transit, FHWA/FTA

Recommendations for improving pedestrian safety.

Pedestrian and Bicycle Safety, USDOT

Links to Federal policies, manuals, and other materials on pedestrian and bicycle safety.

Pedestrian and Bicycle Safety, FHWA

Links to projects, programs, and materials for use in reducing pedestrian and bicyclist fatalities.

Complete Streets, FHWA

Links to funding and design, plans and analysis, and construction, operation, and maintenance practices in integrating safety in roadway design for all roadway users.

Engineering Design for Pedestrian Safety at Highway-Rail Grade Crossings, FRA

Research report on engineering designs for pedestrian treatments at rail grade crossings.

Transit Street Design Guide, National Association of City Transportation Officials (NACTO)

Guidance for the development of transit facilities on city streets and the design and engineering of city streets to prioritize transit, improve transit service quality, and support other transit-related goals.

Urban Street Design Guide, NACTO

The toolbox and tactics cities use to make streets safer, more livable, and more economically vibrant.

Urban Bikeway Design Guide, NACTO

State-of-the-practice solutions for creating complete streets that are safe and enjoyable for bicyclists.

Global Street Design Guide, NACTO

Guidance on how to measure the success of urban streets to include access, safety and mobility for all users, environmental quality, economic benefit, public health, and overall quality of life.

APTA SUDS-UD-RP-009-18, APTA
Bicycle and Transit Integration: A Practical Transit Agency Guide to Bicycle Integration and Equitable Mobility

Recommendations for transit agencies and municipalities seeking to facilitate active first/last mile connections to transit, reduce congestion, and promote healthy communities, including context-driven strategies for integrating bicycles with transit.

Treatments

Report 0111, FTA
Manual on Pedestrian and Bicycle Connections to Transit

Best practices for improving pedestrian and bicycle safety and access to transit.

TCRP Report 175, TCRP
Guidebook on Pedestrian Crossings of Public Transit Rail Services

Engineering treatments designed to help improve pedestrian safety for light rail and streetcar.

Proven Safety Countermeasures, FHWA

Recommended countermeasures and strategies to reduce roadway fatalities and serious injuries.

Safe Transportation for Every Pedestrian, FHWA

Resources for recommended countermeasures to protect pedestrians.

Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, FHWA

Recommendations for countermeasures at uncontrolled pedestrian crossing locations.

Suicide and Trespassing

Report 0227, FTA
Mitigations for Trespasser and Suicide Fatalities and Injuries

Mitigation strategies and countermeasures that may be used by rail transit agencies to reduce trespasser and suicide fatalities and injuries.

Category C: Rail Grade Crossing Safety (Rail Transit)

(To reduce rail transit collisions at rail grade crossings resulting in fatalities and injuries)

Assessment

Report 0216, FTA

FTA Standards Development Program: Rail Transit Roadway/Pedestrian Grade Crossing (Exploratory Report)

Literature review, industry survey, development of general use cases for grade crossing, and case studies on four transit properties.

Safety Bulletin 19-03, FTA

Safety Considerations Associated with Rail Transit Grade Crossings

Voluntary considerations for rail transit grade crossing.

APTA RT-RGC-RP-003-03, APTA

Rail Transit Grade Crossing Safety Assessment

An organized, structured approach for assessing the safety of new and existing rail transit system highway rail grade crossings.

Design and Treatments

Highway-Rail Crossing Handbook, FRA/FHWA

Current practices and requirements for engineering treatments for rail grade crossings.

APTA RT-RGC-S-004-03, APTA

Rail Transit Grade Crossing Warning System Design Criteria Installation and Operation

Recommendations for selecting, installing, and operating highway rail transit grade crossing warning systems, warning devices, highway traffic signs, and other highway traffic-control appliances.

Public Education

APTA RT-RGC-RP-002-02, APTA

Rail Transit Grade Crossing Public Education

Recommended practices for developing public education for rail transit grade crossings.

Operation Lifesaver

Voluntary materials for improving grade crossing safety.

Category D: Bus Transit Safety (Bus Transit)

(To reduce bus transit collisions resulting in fatalities and injuries)

Synthesis 126, TCRP
Successful Practices and Training Initiatives to Reduce Accidents and Incidents at Transit Agencies

Analysis of practices and training initiatives to reduce accidents and incidents.

Synthesis 145, TCRP
Current Practices in the Use of Onboard Technologies to Avoid Transit Bus Incidents and Accidents

Analysis of the use of on-board technology to avoid accidents and incidents.

Category E: Tunnel Ventilation and Fire Safety (Rail Transit)

(To reduce the consequences of fire and smoke events in tunnels[13])

Safety Advisory 15-1, FTA
Audit All Rail Fixed Guideway Public Transportation Systems (RFGPTS) with Subway Tunnel Environments

Requirement for SSOAs to conduct an audit of all RFGPTS with subway tunnel environments (not currently active).

Report 0231, FTA
Specifications and Guidelines for Rail Tunnel Design, Construction, Maintenance, and Rehabilitation

Identifies existing specifications and guidelines for rail transit tunnel design, construction, maintenance, and rehabilitation.

Report 0235, FTA
Specifications and Guidelines for Rail Tunnel Repair and Rehabilitation

Research on specifications and guidelines for rail transit tunnel repair and rehabilitation.

Report 0236, FTA
Specifications and Guidelines for Rail Tunnel Inspection and Maintenance

Research on specifications and guidelines for rail transit tunnel maintenance and inspection.

[13] Recommended practices and safety standards in this category also address safety concerns identified by the NTSB in R-16-001 and R-16-002.

NFPA 130, National Fire Protection Association (NFPA)
Standard for Fixed Guideway Transit and Passenger Systems

Fire protection requirements for transit systems.

Category F: Signal System Safety (Rail Transit)

(To improve the performance and reliability of signal systems to control train movement and reduce collisions[14])

General

Safety Advisory 22-2, FTA
Signal System Safety and Train Control

Recommends that State Safety Oversight Agencies (SSOAs) direct rail transit agencies in their jurisdictions to consider signal system safety and train control as part of their Safety Risk Management processes. Recommends that SSOAs incorporate SA 22-2 into their oversight activities.

APTA RT-SC-009-03, APTA
Standard for Audio Frequency Track Circuit Inspection and Maintenance

Recommendations for assuring the safety and reliability of audio frequency track circuit systems.

Communications Based Train Control

Report 0225, FTA
Needs Assessment for Transit Rail Transmission-Based Train Control (TBTC)

Identifies standards, systems and products that have the potential to provide risk reduction benefits.

IEEE 1474.1, Institute of Electrical and Electronics Engineers (IEEE)
Standard for Communications-Based Train Control Performance and Functional Requirements

Guidance for enhancing performance, availability, operations, and train protection using a communications-based train control system.

[14] Recommended practices and safety standards in this category also address safety concerns identified by the NTSB in R-15-022.

IEEE 1474.2, IEEE

Standard for User Interface Requirements in Communications-Based Train Control Systems

Guidance on communications-based train control systems user interface and how to present this information to the user.

IEEE 1474.3, IEEE

Recommended Practice for Communications-Based Train Control System Design and Functional Allocations

A preferred system design and functional allocation for communications-based train control systems.

IEEE 1474.4, IEEE

Recommended Practice for Functional Testing of a Communications-Based Train Control System

A preferred approach for functional testing of a communications-based train control system based on the system design and functional allocations defined in IEEE Std 1474.3.

Locking Tests

APTA RT-SC-S-004-02, APTA

Standard for Approach Locking Testing

Recommendations on how to verify that rail transit approach locking systems are operating safely and as designed.

APTA RT-SC-S-005-02, APTA

Standard for Route Locking Tests

Recommendations on how to verify that rail transit route locking systems are operating safely and as designed.

APTA RT-SC-S-006-02, APTA

Standard for Time Locking Tests

Recommendations on how to verify that rail transit time locking systems are operating safely and as designed.

APTA RT-SC-S-010-02, APTA

Standard for Traffic Locking Tests

Recommendations on how to verify that rail transit traffic locking will prevent traffic from changing direction on a section of track in between interlockings while that section is occupied or while a signal displays an aspect to proceed into that section.

Signal System Components

APTA RT-SC-S-011-03, APTA
Standard for Cable Plant Inspection and Testing

Recommendations on how to verify that rail transit cable plants are operating safely and as designed.

APTA RT-SC-S-027-03, APTA
Standard for Switch Inspection and Obstruction Testing

Recommendations on how to verify that rail transit switch machines and associated indication circuitry are operating safely and as designed.

APTA RT-SC-S-028-03, APTA
Standard for Vital Relay Testing

Recommendations on how to verify that rail transit vital relays are operating safely and as designed.

APTA RT-SC-RP-033-03, APTA
Recommended Practice for Visual Inspection of Wayside Signal Equipment

Recommendations to aid in identifying visual defects or other potentially hazardous conditions related to wayside signal equipment.

APTA RT-SC-S-035-03, APTA
Standard for Vital Processor-Based System Inspection, Testing and Configuration Control

Recommendations on how to verify that vital processor-based systems are operating safely and as designed.

APTA RT-SC-RP-008-03, APTA
Recommended Practice for Train-to-Wayside Communication System Inspection and Testing

Guidance on how to verify that train-to-wayside communication systems and equipment are operating safely and as designed.

APTA RT-SC-RP-001-02, APTA
Recommended Practice for Wayside Signal AC Power System Inspection and Testing

Recommendations on how to verify that wayside signal AC power systems and equipment are operating safely and as designed.

APTA RT-SC-RP-002-02, APTA
Recommended Practice for Wayside Signal DC Power System Inspection and Testing

Recommendations on how to verify that wayside DC signal power systems and equipment are operating safely and as designed.

APTA RT-SC-S-036-03, APTA
Standard for Wayside Signal Inspection and Testing

Recommendations on how to verify that wayside signal systems are operating safely and as designed.

APTA RT-SC-S-040-03, APTA
Standard for AC Track Circuit Inspection and Maintenance

Recommendations on how to verify that AC track circuits and equipment are operating safely and as designed.

APTA RT-SC-S-043-03, APTA
Standard for Impedance Bond Inspection and Maintenance

Recommendations on how to verify that rail transit audio frequency and power impedance bonds are operating safely and as designed.

Public Education

APTA RT-RGC-RP-002-02, APTA
Recommended Practice for Rail Transit Grade Crossing Public Education

Recommendations for developing rail transit grade crossing public safety and trespass prevention education programs.

Category G: Vehicle Safety (Bus and Rail Transit)

(To improve the design and performance of transit vehicles to protect occupants, to communicate safety information, and to support emergency access and egress[15])

Subcategory G.1: Vehicle Crashworthiness and Brake Testing (Bus and Rail Transit)

Vehicle Crashworthiness

Report 0141, FTA

FTA Standards Development Program: Crashworthiness/Crash Energy Management Follow-up for Less than 30 Ft Bus

Results of a study on the needs and gaps for voluntary standards or recommended practices for crashworthiness and crash energy management for less that 30-ft. paratransit body-on-chassis buses (cutaways).

Report 0179, FTA

FTA Standards Development Program: Crashworthiness/Crash Energy Management for Transit Bus

Results of an examination of the existing standards, guidelines, and recommendations associated with crashworthiness and crash energy management for transit buses, including articulated buses, bus rapid transit buses, and paratransit body-on-chassis buses.

Report 0233, FTA

FTA Standards Development Program: Crash Energy Management for Heavy Rail Vehicles, Light Rail Vehicles, and Streetcars

Report includes a summary of transportation modes that lack crashworthiness and crash energy management standards, existing standards implemented into industries related to crashworthiness, and crash energy management used for newly-procured equipment and industry survey results of the use of the standards implemented.

ASME RT-2, American Society of Mechanical Engineers (ASME)

Safety Standard for Structural Requirements for Heavy Rail Transit Vehicles

Guidance on incorporating passive safety design concepts related to heavy rail transit carbody performance during collisions.

ASME RT-1, ASME

Safety Standard for Structural Requirements for Light Rail Vehicles and Streetcars

Guidance on incorporating passive safety design concepts related to light-rail vehicle carbody performance during collisions.

[15] Recommended practices and safety standards in this sub-category also address safety concerns identified by the NTSB in R-06-006 and R-17-004.

APTA RT-VIM-RP-025-15, APTA
Recommended Practice for Operator Protection Features for Rail Transit Vehicles

Recommendations on vehicle features to consider improving operator protection when procuring new rail transit vehicles.

Vehicle Brake Performance and Inspection

Safety Advisory 14-2, FTA
Verification of Rail Vehicle Safe Stopping Distances in Terminal Stations

Requirement for rail transit agencies to review terminal station configurations to verify that designed braking distances address the actual operating conditions in stations, including authorized train speeds, train length and length of platform, the position of signals and trip stops, and the bumping post installation.

APTA RT-VIM-S-007-02, APTA
Standard for Friction Brake Equipment Periodic Inspection and Maintenance

Recommendations on the basic procedures to apply when performing periodic inspections and maintenance of brake cylinders, tread brake units, disc brake units, brake discs, tread brake shoes, and disc brake pads for rail transit vehicles.

Subcategory G.2: Vehicle End-of-Railcar Door Messaging (Rail Transit)[16]

Safety Bulletin 20-01, FTA
End-of-Railcar Door Signage and Messaging

Safety considerations associated with end-of-railcar door signage and messaging in rail transit vehicles.

APTA PR-PS-S-002-98, Rev. 3, APTA
Standard for Emergency Signage for Egress/Access of Passenger Rail Equipment

Recommendations on designing and selecting the physical characteristics, informational content, and placement of all interior emergency exit and exterior rescue access signs/markings and instructions.

[16] Recommended practices and safety standards in this sub-category also address safety concerns identified by the NTSB in R-19-039 and R-19-040.

APTA RT-VIM-S-021-10, APTA
Standard for Emergency Signage for Rail Transit Vehicles

Recommendations on minimum design and performance criteria for rail transit car emergency signage that functions under normal conditions and also operates when normal and/or emergency lighting systems are unavailable.

ISO 3864-1:2011, International Standards Organization (ISO) Graphical Symbols — Safety Colours and Safety Signs
Part 1: Design Principles for Safety Signs and Safety Markings

Guidance on safety identification colors and design principles for workplace and public area safety signs and safety markings for the purpose of accident prevention, fire protection, health and hazard information, and emergency evacuation.

ISO 7010:2019, ISO
Graphical symbols — Safety Colours and Safety Signs — Registered Safety Signs

Guidance on safety signs for the purposes of accident prevention, fire protection, health hazard information, and emergency evacuation.

Subcategory G.3: Vehicle Emergency Systems and Fire Safety (Rail Transit)

Emergency Systems

Report 0199, FTA
Emergency Lighting and Signage for Rail Transit Passenger Vehicles (Report 0199)

Results of research on existing reports, standards, and regulations related to emergency lighting and signage and their use on all rail modes.

APTA RT-VIM-S-026-12, APTA
Standard for Rail Transit Vehicle Passenger Emergency Systems

Information on various passenger emergency systems for rail transit agencies to consider when purchasing new vehicles.

APTA RT-VIM-S-020-10, APTA
Standard for Emergency Lighting System Design for Rail Transit Vehicles

Recommendations on emergency lighting system designs that provide lighting when power loss disrupts normal lighting.

APTA RT-VIM-S-022-10, APTA
Standard for Low-Location Exit Path Marking

Recommendations on the design and use of passive-type markings due to the lower cost and maintenance requirements compared with active marking system designs.

Fire Safety

NFPA 130, NFPA
Standard for Fixed Guideway Transit and Passenger Systems

Guidance on essential items for fire protection and life safety for underground, surface, and elevated fixed guideway transit and passenger rail systems.

Safety Advisory 15-1, FTA
Audit All Rail Fixed Guideway Public Transportation Systems (RFGPTS) with Subway Tunnel Environments

Identifies specific areas of concern identified by the National Transportation Safety Board that State Safety Oversight Agencies will audit.

Subcategory G.4: Vehicle Safety Standards and Practices (Bus Transit)

Remanufacturing or Rebuilding Brake and Chassis Components

APTA BTS-BC-RP-009-20, APTA
Recommended Practice for Remanufacturing or Rebuilding of Transit Bus Brake and Chassis Components

A high-level overview of key considerations when preparing specifications to remanufacture or rebuild bus brake and chassis components.

Fire Safety

APTA BTS-BS-RP-001-05, APTA
Recommended Practice for Transit Bus Fire Safety Shutdown

Recommendations on the notifications and systems and circuits to shut off after a fire is detected.

APTA BTS-BS-RP-002-07, APTA
Recommended Practice for Transit Bus Electrical System Requirements Related to Fire Safety

Recommendations for transit bus electrical control system configuration for electrical circuits related to fire safety.

APTA BTS-BS-RP-003-08, APTA
Recommended Practice for Installation of Transit Vehicle Fire Protection Systems

Recommended minimum performance specifications for detection of and suppression of thermal events on transit vehicles.

Category H: Electronic Recording Devices and Cameras (Rail Transit)

(To support monitoring of transit operations and investigation of safety events[17])

Event Data Recorders

IEEE 1482.1-2013, IEEE
Standard for Rail Transit Vehicle Event Recorders

Guidelines for on-board devices/systems with crashworthy memory that record data to support accident/incident analysis.

Inward- and Outward-Facing Cameras

Safety Bulletin 20-02, FTA
Inward- and Outward-Facing Image and Audio Recorders

Information for State Safety Oversight Agencies and rail transit agencies on installing inward- and outward-facing image and audio recorders in the controlling cabs and cab car operating compartments to support safety risk management and safety assurance activities.

Report 0200, FTA
Inward- and Outward-facing Audio and Video Recordings for Transit Rail Vehicles

Report documents the research necessary to assist APTA in developing a recommended practice for the industry to install inward- and outward-facing cameras and audio recorders, consistent with the National Transportation Safety Board's recommendation to FTA, R-17-13.

APTA RT-OP-RP-024-19, APTA
Recommended Practice for Crash and Fire Protected Inward-and-Outward-Facing Audio and Image Recorders in Rail Transit Operating Compartments

Recommendations on the specifications for and the installation and maintenance of audio and image recording devices in rail transit vehicle operating compartments.

[17] Recommended practices and safety standards in this category also address safety concerns identified by the NTSB in R-15-023 and R-17-013.

Category I: Operations Procedures, Compliance, and Training (Bus and Rail Transit)

(To support compliance with and sufficiency of operations procedures and the training, supervision, and qualification of operations personnel)

Operations Control Center

APTA RT-OP-S-005-03, APTA
Standards for Operations Control Centers

Addresses the primary elements of the general design/function and overall authority essential in an OCC facility and the functional elements of OCC personnel and their applicable roles.

APTA RT-OP-S-006-03, APTA
Standard for Rail Transit Signals Operating Rules and Procedures

Recommendations on applying and using train control signal technology to enhance safe, efficient train operation through the application of operating rules and procedures.

APTA RT-OP-RP-030-21, APTA
Recommended Practice for Defensive Rail Operations

Recommendations on creating programs that encourage and promote operating trains and other rail transit vehicles in a defensive manner.

Competencies and Training

APTA RT-OP-S-013-03, APTA
Standard for Training of Rail Operating Employees

An outline of the basic elements of a comprehensive rail operating employee training and retraining program.

APTA RT-OP-RP-029-21, APTA
Recommended Practice for Rail Operations Employee Development Practices

A framework for the types of employee development practices that rail transit agencies may enact to assist their employees in gaining the requisite skills to advance within rail operations and supervision.

Compliance with and Sufficiency of Operations Rules and Procedures

APTA RT-OP-S-011-10, APTA
Standard for Rule-Compliance Program Requirements

Recommendations on developing a formal program that promotes comprehension of rail transit system rules and how to measure and enforce employee adherence to the established rules.

APTA RT-OP-S-001-02, APTA
Standard for Rulebook Development and Review

Recommendations on developing and revising a transit operating system rulebook, and suggestions for rulebook issuance and authority.

APTA RT-OP-S-019-14, APTA
Standard for Rail Transit Operations Supervisor Program Requirements

Baseline recommendations for rail operations supervisor job duties to improve supervisor effectiveness, and guidance on monitoring and managing supervisor performance.

TCRP Report 149, TRB
Improving Safety-Related Rules Compliance in the Public Transportation Industry

Potential best practices for all of the elements of a comprehensive approach to safety-related rules compliance.

Category J: Maintenance Procedures, Compliance, and Training (Bus and Rail Transit)

(To support compliance with and sufficiency of maintenance procedures and the training, supervision, and qualification of maintenance personnel)

Fixed Structures

APTA RT-FS-S-001-02, APTA
Standard for Rail Transit Fixed Structures Inspection and Maintenance

Recommendations on the minimum means, methods, and frequency of period safety inspections and maintenance activities of rail transit structure safety-critical components and the qualifications that employees or contractors must have to perform these procedures.

Track

Report 0215, FTA
Research Report and Findings: Review of Standards for Track Inspection and Maintenance

Research on the state of inspection and maintenance practices for rail transit agencies in the U.S.

APTA RT-FS-S-002-02, APTA
Standard for Rail Transit Track Inspection and Maintenance

Recommendations for rail transit track inspection and maintenance.

Stations, Shops, and Yards

APTA RT-FS-S-003-02, APTA
Recommended Practice for Rail Transit Station, Shop and Yard Inspection and Maintenance

Recommendations for rail transit station, shop, and yard inspection and maintenance.

Traction Power Electrification Systems

APTA RT-FS-S-004-03, APTA
Standard for Traction Electrification Substation Inspection, Maintenance, and Testing

Recommendations for testing traction electrification activities.

APTA RT-FS-S-005-03, APTA
Standard for Traction Electrification Stray Current/Corrosion Control Equipment Inspection and Maintenance

Recommendations for the control of stray current and corrosion control.

APTA RT-FS-S-006-03, APTA
Standard for Traction Electrification Distribution System Inspection, Maintenance, and Testing

Recommendations for inspection, maintenance, and testing of traction electrification distribution systems.

Rail Grade Crossings

APTA RT-RGC-S-001-02, APTA
Standard for Rail Transit Grade Crossing Warning Device Inspection, Testing, and Maintenance

Recommendations for inspection, maintenance, and testing of grade crossing warning devices.

Rail Maintenance Training

APTA RT-RMT-RP-001-10, APTA
Recommended Practice for Rail Vehicles Maintenance Training Standards

Recommendations for rail vehicle maintenance training.

APTA RT-VIM-RP-011-03, APTA
Recommended Practice for Rail Transit Vehicle Inspection and Maintenance Training and Qualifications

Recommended practices for rail vehicle inspection and maintenance training and qualifications.

APTA RT-RMT-RP-002-10, APTA
Recommended Practice for Rail Signals Maintenance Training Content and Standards

Recommendations for rail signal maintenance training.

APTA RT-SC-RP-031-03, APTA
Recommended Practice for Signal Maintenance Personnel Hiring Qualifications, Training, and Competencies

Recommendations for signal maintenance personnel qualification and training.

APTA RT-RMT-RP-003-10, APTA
Recommended Practice for Elevator and Escalator Maintenance Training Guidelines Standards

Recommendations for training for elevator and escalator maintenance.

APTA RT-RMT-RP-004-10, APTA
Recommended Practice for Traction Power Maintenance Training Standards

Recommendations for traction power maintenance training.

Electric Buses

Report 0252, FTA
Safety and Security Certification of Electric Bus Fleets – Industry Best Practices

Minimum safety and security certification program practices and protocols for transit agencies to verify that battery electric buses and their associated facilities, systems, and equipment are safe for revenue operations.

Report 0253, FTA
Procuring and Maintaining Battery Electric Buses and Charging Systems – Best Practices

Best practices for procuring and maintaining battery electric buses and charging systems.

Category K: Precautionary and Reactive Actions during an Emergency

(To ensure public and worker health and safety during emergencies)

Coordination with U.S. Department of Health and Human Services (HHS)

Administration for Strategic Preparedness and Response, HHS

HHS emergency preparedness and response main page.

Ventilation in Buildings, CDC

Ventilation mitigation strategies for buildings.

Emergency Response and Recovery

COVID-19 Resource Tool for Public Transportation, FTA

Federal COVID-19 guidance and recommendations.

Using Your Safety Management System (SMS) to Mitigate Infectious Disease and Respiratory Hazard Exposure, FTA

Sources of hazard identification data and potential mitigations to inform the Safety Risk Management process.

Response and Recovery from Declared Emergencies and Disasters, FTA

Transit response and recovery actions and funding in response to declared emergencies and disasters, including major accidents, terrorist actions, and natural disasters.

APTA SS-SEM-S-014-20, APTA

Standard for Transit Agency Emergency Management Program

Recommendations for transit emergency response programs.

APTA RT-OP-S-007-04, APTA

Standard for Rail Transit Agency System Emergency Management Requirements

Recommendations for rail transit emergency management.

APTA SS-SEM-S-005-09, APTA

Standard for Developing a Transit Agency Response Plan to a Public Health Emergency

Recommendations for creation and implementation of a basic response plan to a public health emergency.

APTA SS-SEM-WP-016-20, APTA
Recommended Practice for Developing a Pandemic Virus Service Restoration Checklist
Recommendations for service restoration after pandemic event.

APTA SS-SEM-RP-002-08, APTA
Recommended Practice for First Responder Familiarization of Transit Systems
Recommended practices for ensuring first responder system familiarization.

APTA SS-SEM-S-004-09, APTA
Standard for Transit Exercises
Recommendations for transit drills and exercises.

APTA SS-SEM-RP-009-09, APTA
Recommended Practice for Emergency Communication Strategies for Transit Agencies
Recommendations for effective communications during emergencies.

APTA SS-SEM-RP-011-09, APTA
Recommended Practice for Regional Emergency Planning and Participation in Mutual Aid
Recommendations for regional emergency planning and mutual aid.

APTA SS-SEM-RP-015-19, APTA
Recommended Practice for Suspension of Service of a Public Transportation System and Recovery
Strategies for managing service suspension and recovery.

Appendix M: (Reserved for Future Use)

Appendix N: Revision Summary of Changes

Version 1.1 Effective July 1, 2021	1. Version 1.1 Effective July 1, 2021 2. Modified Table of Contents 3. Modified Revision Table 4. Safety Policy Statement. New Accountable Executive, Stephanie N. Wiggins Signature 5. Section 673.11(6)(b) Clerical changes 6. Section 673.25(b) clarified that CPUC and other external agency findings are tracked separately from Metro's internal SAFE-7 Hazard/Near-Miss tracking system. 7. Section 673.25(c) clarified reporting of Priority 1 hazards to CPUC within 2 hours of being assessed as such. 8. Section 673.25(d) explained when risks are considered acceptable by Department Head, with monitoring by Corporate Safety staff. 9. Moved information Rule/SOP modification from section 673.29(a) to section 673.27(c) 10. Updated Appendix A and B Organization Charts 11. Updated Appendix F with PTASP instead of SSPP, which is no longer in effect. 12. Added Appendix N- Revision Summary of Changes
Version 1.2 Effective January 2023	1. Included all requirements of Bipartisan Law Requirements – Joint labor/management Committee, de-escalation training, Infectious Diseases Exposure Plan, trending based on 3-year rolling average of NTD data, risk reduction projects for reducing accidents, visibility impairments on buses, and transit worker assaults.

Version 1.3 Effective January 2024	1. Modified Revision Table 2. Updated Organization Charts 3. Revised Regional Connector project operating line 4. Revised Appendix D to include reference to calculated targets 5. Revised §673.25(b) to include protection for employees who report hazards/near-miss incidents
Version 1.4 Effective January 2025	1. [illegible] categorizing hazards. 2. Revised AIP to incorporate CPUC's comments. 3. Revised Bus Training Matrix. 4. Revised Organizational Charts. 5. Updated system descriptions. 6. Updated Appendix D. 7. Added section §673.11 to incorporate Roadway Worker Protection program. 8. Added description of Operations Safety Steering Committee. 9. Revised Policy Statement to include reference to Joint Labor Management Safety Committee. 10. Added Risk Based Inspection Program (RBI) in §673.11(a)(6)(iii). 11. Updated JLMSC Committee description and Ground Rules and Guidelines in Appendix O.

Appendix O: Approval of PTASP by Joint Labor Management Safety Committee and Ground Rules and Guidelines for the JLMSC

Meeting Minutes

JOINT LABOR MANAGEMENT SAFETY COMMITTEE MEETING

Virtual Meeting: Zoom

Order of Business

- The meeting was called to order by Cristian Leiva.
- Mr. Leiva made a motion to approve the October 8, 2024, minutes, Victor Baffoni motioned and both John Ellis and Michael Winston seconded the motion. There were no objections to the motion; therefore, the October 8, 2024, minutes were approved.

In attendance at the JLMSC meeting:

Union Committee Members	Alternates
John Ellis – General Chairman, SMART/UTU	Quintin Wormley & Victor Baffoni
Fred Hines – Vice President, AFSCME, Local 3634	Frank Forde
Judith Serlin – Business Agent, Teamsters, Local 911	Dion Middleton
Jeff Shaffer – President, ATU Local 1277	Errol Frazier
Michael Winston – Chairman, TCU/IAM, Local 1315	Josh Ott

Management Committee Members	Alternates
Cristian Leiva – Deputy Chief People Officer	Esther Reed
Conan Cheung – Chief Operations Operator	Matthew Dake & Edna Stanley
Ken Hernandez – Deputy Chief Risk, Safety, & Asset Mgmt.	Vijay Khawani
Robert Gummer – Sr. EO, System Security & Law Enforcement	
Errol Taylor – Deputy Chief Operations Officer	Leticia Solis

Committee Support

- Rhonda Hilyer – Agreement Dynamics/ JLMSC Facilitator
- David Huezo – Sr. Employee & Labor Relations Representative / JLMSC Notetaker

Additional Attendees / Subject Matter Experts

- Steve Espinoza – EO, Labor & Employee Services
- Hector Guerrero, Sr. EO, Rail Operations

*Committee members whose names are in red were not in attendance.

Meeting Focus:

1. Metro Safety Plan and JLMSC Ground Rules
2. FTA General Directive

Time Permitting

3. System Security & Law Enforcement (SSLE) Updates / Issues
4. Bus Operator Barriers
5. Bus Blind Spots & Pedestrian Safety
6. Employee Assault Notifications
7. Additional Employee Resources After Distressing Events
8. Open Issues / Discussion and Questions & Answers

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1. Metro Safety Plan and JLMSC Ground Rules

JLMSC Ground Rules

❖ David Huezo shared on screen the draft of the JLMSC Grounds Rules, which was sent to the committee members for review via email on October 14, 2024.

- Cristian Leiva explained that management has approved the draft JLMSC Ground Rules changes proposed by the unions and asked if the committee wanted to discuss them further. Rhonda Hilyer discussed that during the previous JLMSC meeting, the committee went over the Ground Rules and the unions proposed different language for numbers thirteen (13) and fourteen (14) and had no concerns about any other sections.
- John Ellis asked if anyone had concerns with the draft Ground Rules and no one expressed any concerns. Mr. Leiva commented that Metro would like to get the Ground Rules approved so they can be part of the Safety Plan that Metro will take to the Board for approval. Vijay Khawani added that the goal is to have the Ground Rules and Safety Plan approved by the Board during the January 2025 meeting. He explained that documents for the January 2025 Board meeting would need to be submitted a month in advance.
- Ms. Hilyer reminded the committee that the Union Caucus came up with language on screen for rule number thirteen (13) and that management has approved it. She asked if the committee is ready for the Ground Rules to go into the Safety Plan and added that it would be decided on by consensus. She asked if the committee should motion to approve the Ground Rules.
- Mr. Leiva made a motion to approve the Ground Rules, which Victor Baffoni seconded. No one on the committee opposed. Therefore, the Ground Rules were approved by the committee.
- Mr. Baffoni asked if the committee could have the approved Board Report after the January Board meeting. Mr. Khawani stated that he can send the minutes to the committee after the meeting, but shared that the minutes are not available until a few weeks after the meeting date.

Metro Safety Plan

❖ Mr. Huezo shared on screen the portions of the Safety Plan that were updated, which were sent to the committee members for review via email on October 14, 2024.

673.11(a)(6)(ii) Roadway Worker Protection Program

- Mr. Khawani explained that the Roadway Worker Protection Program is a program that all rail transit agencies need to establish to ensure that any person on the rail right of way is afforded protection from moving trains. He added that the program must be referenced in the agency's Safety Plan. Metro has had the program for over ten years because it was required by the California PUC long

before the FTA. Metro has developed the program, implemented it, has rules and procedures related to the program, and provides training and all required equipment to support the program such as a Protran device used by employees and contractors on the rail right of way. The Protran device is like a pager that alerts workers that a train is approaching, which provides a warning and time to clear to a safe place on the right of way.

- Mr. Baffoni asked if there were significant changes between the California PUC and federal requirements. Mr. Khawani explained that the PUC was ahead of the federal program, but the federal program added more requirements such as audits, quarterly reports, and briefings to the Board. Now, the PUC is updating their requirements to mirror the federal requirements. There are other requirements like a guide that shows the alignment of rail lines to identify the locations of curves, and the requirement to have the program approved by the PUC. Previously, no PUC approval was needed, the plan just needed to be submitted for the PUC's information. Safety is working with Operations, Hector Guererro (Sr. EO, Rail Operations), to revise the program and include all the changes. The deadline to do so is December 2, 2025.

673.(a)(6)(iii) Risk Based Inspection Program

- Mr. Khawani explained that this program applies to the rail mode and is required by the FTA, but state agencies overseeing rail safety must also have this program. He explained that the PUC sends certified inspectors to different rail lines, yards, and shops for inspections. They conduct track, signal, and relay inspections as well as inspections of the station platforms and rail vehicles. They conduct evaluations of Train Operators based on the rules the Operators must follow. Inspections can be either announced or unannounced, and they can be for any line, at any time, and on any shift. If the inspections result in findings, Metro creates an action plan to tell them how we will correct the findings, the timeframe for corrections, and who is responsible for them. There is data that Metro needs to provide like work orders, trends, areas where track or switch points are wearing, etc. They can also conduct inspections based on data they receive from Metro.

673.11(7)(i) Risk Reduction Program for Mitigating Safety Events / Injuries

- Mr. Khawani explained that for this program, Metro identifies risks and what we are planning or doing to address them. Some programs Metro has initiated are showing videos on the platforms for community outreach and education on safety, reducing reflection / glare from Operator barriers used to mitigate Operator assaults, have four-quadrant gates at BRT and rail crossings to avoid collisions, and installing high visibility reflective decals on the rear of buses to mitigate rear end collisions, particularly at night.
- Quintin Wormley asked if the listed program to reposition the left side mirror to improve visibility and avoid bus/pedestrian collisions has been done or will be done. Mr. Khawani explained that this is a pilot that Matt Dake and team are working on, but it has not been aggressively pursued because they are currently working on the Bus Operator barriers. Mr. Wormley asked if there is a target for the pilot and Matt Dake shared that a schedule will be determined once they finish with the Bus Operator barriers at the end of the year. Mr. Wormley asked about the reflective decals on buses and Mr. Dake explained that they have been installing reflective decals when buses are in the CMF Body Shop, but when the Bus Operator barriers are completed, they will be more aggressive with the installation of the decals.

673.11(7)(ii) Risk Reduction Program for Mitigating Transit Worker Assaults

- Mr. Khawani stated that all transit agencies unfortunately face the challenge of transit worker assaults, and this section lists ways that Metro is trying to mitigate assaults.

- Judith Serlin asked if security is considered part of these efforts. Mr. Khawani stated that they are, and pointed to the items listed as bus riding teams and ambassadors and the in-house Metro Transit Police Department.
- Michael Winston stated that he does not see anything about protections for General Services employees or Custodians on the platform. He added that all employees should be included because they are exposed to risks daily. Mr. Khawani explained that the FTA General Directive applies to all employees and contractors. He added that unfortunately, Metro has a group of employees that are more prone to assaults, which are the Bus Operators. He explained that most transit agency worker assaults are against Bus Operators followed by Security Officers, but of course there are others that are also assaulted. For employees that are mobile and more exposed, the strategies are more limited. Mr. Khawani requested that if the unions have ideas on mitigation strategies, they should let him know.
- Mr. Winston shared that Custodians are assaulted daily and that he met with Robert Gummer and Chris Limon (EO, Operations Administration) about this issue last week. He stated that assaults are not being reported and he is demanding that we meet and put something in writing about Custodians being assaulted. He added that he knows about Operator assaults, and he feels for them, but Custodians are assaulted every single day. Mr. Khawani stated that the key is to get that information so that Metro can know it is occurring and mitigate those assaults as well. Mr. Winston stated that he and Mr. Leiva texted over the weekend about a Custodian that was attacked by an Ambassador. He explained that the Custodian received 40 blows to the head, but no reports have been sent out about that incident. He added that it should have been communicated with Steve Espinoza or whoever is supposed to send the employee assault notifications out to the committee because this employee almost died. Josh Ott explained that, for this reason, it is hard for the unions to get on board with the data Metro has as the unions see it firsthand, and Metro only captures reports made to the ROC and BOC. He added that this was an Ambassador that walked into a custodial breakroom and almost killed the Custodian by bashing his head. Usually, when something like that happens, there are pictures put up around the agency saying look out for this person, but nothing has been done. Mr. Khawani asked if the employee called the ROC or BOC, and Mr. Winston said that many knew about this incident, and someone should have communicated that this happened.
- Ms. Serlin asked if the Security Director knew about the assault against the Custodian. Errol Taylor stated that shortly after the incident occurred, Mr. Limon notified him and Mr. Gummer, so SSLE was aware right away. Mr. Taylor stated that the employee was offered EAP, and he is being checked in on every day. Also, he met with the Ambassador Program leadership two days ago and expressed concerns about their hiring criteria and that Metro wants to make sure we are satisfied with the criteria. It is his understanding that the Ambassador is not on Metro property anymore and the matter is still open and being investigated. Mr. Winston stated that the Ambassador said he would kill the Custodian, and these Metro employees need to be protected.
- Ms. Serlin asked if the committee would start seeing assault notification forms for all employees. Mr. Ott stated that the Custodian that was attacked is the nicest guy, and the Ambassador did not like that the Custodian had his headphones on and started attacking him. He added that assaults like these are not being reported. Ms. Serlin asked why someone from Custodial is not reporting assaults ad hoc to the ROC or BOC. Mr. Leiva explained that Mr. Espinoza looked into this matter after the last JLMSC meeting and currently there is no centralized mechanism to get information on all employee incidents, so SSLE is building their own solution. SSLE is keeping a spreadsheet of reported incidents on SharePoint. They have asked all departments to report incidents to them. This is their home-grown solution until transit safe can be modified to fit this need or they come up with a dedicated system. They have given Mr. Espinoza access to their spreadsheet so he can monitor and inform the unions when he sees an assault incident on an employee that was not reported

through the BOC or ROC. Mr. Espinoza was just given access to the spreadsheet last night so he will start monitoring this today and going forward.

- Mr. Winston shared that an employee called the union about his son that did not have his dependent card. The police came on the train, handcuffed him, and took his fingerprints on a portable scanner. The dependent said his father works at Division 14 and provided his father's name, but he was handcuffed, fingerprinted, and removed. This is the son of a long-time employee, and they want to file a lawsuit against Metro now.
- Ms. Hilyer commented that what she thinks she is hearing Mr. Winston asking is if in this section of Safety Plan, there can language that involves addressing events with all employees. She asked if there is a way to put events like the assault on the Custodian into the Safety Plan. Mr. Khawani explained that one aspect of this matter is the reporting of the information, and it is ideal that these events be reported to the ROC or BOC because that is the centralized mechanism. Once that information is reported, there is a reasonable expectation that other employees and parties will get the information. If it is not reported to the ROC or BOC, then it may get lost. Mr. Winston stated that General Services knew about the assault and should have reported the matter to the ROC or BOC. Mr. Leiva stated that according to SSLE, they want management to report directly to them and Mr. Espinoza now has access to that data and will check the spreadsheet daily.
- Mr. Khawani stated that he would need to know what language the unions are requesting to be added to the Safety Plan. Ms. Hilyer stated that she will speak to Mr. Winston and get the language to Mr. Khawani and Mr. Leiva for review.

673.19 Safety Committees – Joint Labor Management Safety Committee (JLMSC)

- Mr. Khawani explained that this section talks about this committee, including the meetings, KPIs, and Ground Rules.

673.25(c) Safety Risk Assessment

- Mr. Khawani explained that this section talks about how Safety assesses safety hazards and assigns each hazard a priority level as shown in the Severity Level chart.

Appendix D: Safety Performance Measures and Performance Targets

- Mr. Khawani stated that the last update is Appendix D. He explained that the FTA added measures that Metro must now include, and this section shows how we calculated current fiscal year targets for each of those safety measures. This is the format we are asked to use in the Safety Plan, and these are the numbers we reported to National Transit Database which all transit agencies are required to do.
- Frank Forde asked how Metro would categorize when a bus has loose wheels that come off and collide with another vehicle. Also, who in Maintenance reports it and if Corporate Safety is involved. Mr. Khawani stated that this is a hazardous condition that is reported through Safe 7. Mr. Forde then asked if two Safe 7 reports were submitted in the last week for Divisions 15 and 18 where this issue occurred. Mr. Khawani responded that if it is reported, Safety would know about it, but if not, they would not. There was then discussion about who is responsible for reporting an issue like this. Mr. Ott asked how many Operators know how to fill out a Safe 7. Mr. Khawani explained that all Operators should know how because Safety does a lot of outreach about this process. He added that Safety is getting ready to issue a pocket card with resources that employees can use to report issues. He stated that division management investigates Safe 7 reports and responds to the employee. Mr. Ott asked if there is a timeframe for the investigation and what happens if the report is not investigated. Mr. Khawani responded that the timeframe is generally 30 days and if the report is not investigated, the employee can contact Safety who would then contact the division.

- Mr. Ellis asked how a wheel falls off the bus and commented that it should be reported via an accident report. Mr. Khawani agreed and stated that he will review Safe 7 and the accident system to see if the incidents were reported. Mr. Forde said that he would send Mr. Khawani pictures and bus numbers for the vehicles involved.
- Ms. Hilyer stated that she will work with Mr. Winston and the Union Caucus to get the additional language for the Safety Plan and asked that Mr. Leiva work with management once that is received. She asked if with the addition of that language in the Safety Plan, does anyone want to add or change anything else in the Safety Plan. No one expressed any other concerns so Ms. Hilyer asked if the committee wanted to approve the Safety Plan with these additions that will be approved for section 673.11(7)(ii). Mr. Leiva asked if we have a motion to approve the Metro Safety Plan with additions to 673.11(7)(ii), Risk Reduction Program for Mitigating Transit Worker Assaults. Mr. Baffoni moved the motion which Mr. Winston seconded. No one opposed the motion. Therefore, the Safety Plan was approved by the committee with the additions to 673.11(7)(ii).

2. FTA General Directive

❖ Mr. Huezo shared on screen the draft FTA General Directive Safety Risk Assessment & Mitigation Strategies to Mitigate Transit Worker Assaults Report, which was sent to the committee members for review via email in Microsoft Excel format on October 17, 2024, and Microsoft Word format on November 7, 2024.

- Mr. Khawani explained that Metro's deadline to submit the response report is December 26, 2024. He added that the draft explains what the directive is and how Metro evaluated the data it has up to this point. He went over the transit worker assaults reported to NTD for September 1, 2023 – August 30, 2024, which are broken down by mode and if on a vehicle or in a revenue facility as requested by the FTA. The data shows that the largest number of assaults occur on the bus mode and primarily on the bus. He also went over the chart pertaining to the FTA General Directive 24-1 Risk Rating Scale. Mr. Khawani explained that the FTA is most interested in mitigation strategies and if they are effective. He went through the table of safety risk mitigation strategies used at Metro and commented that the FTA wants to collect this information from all transit agencies so they can share strategies with each other depending on what is working.
- Ms. Serlin asked if the incidents data includes if a weapon was used, such as knives, guns, etc. Also, if spit was involved or physical force was used. Mr. Khawani and Mr. Gummer explained that there is a public report that can be accessed by all. Mr. Khawani shared his screen and displayed data from the public report which showed the methods of assaults as of September 2024. Specifically, five used hands, four spit, one brandished a gun, one brandished a knife, one used a knife, and one threw liquid. Mr. Gummer shared that this data is specific to Bus Operator reports.
- Mr. Frazier shared that in the parking lot for Division 1, two ATU members had their cars vandalized. He added that for one of those events, an unarmed guard saw it occur and let the person walk away. Mr. Winston stated that he would like to add that three cars belonging to TCU members were vandalized at the Willowbrook / Rosa Parks Station. He added that he acquired videos of the incidents and has submitted requests to Metro, but Metro says the parking lot is owned by the county. Mr. Forde stated that there was a situation at Division 15 where someone came onto the property and damaged an employee's car. Also, that this week at Division 13, there were two incidents involving homeless individuals.

- Mr. Forde stated that he previously asked about having an armed security guard back at CMF and asked if there was any update. Mr. Gummer stated that Jose Ortiz (Director, Transit Security) manages contracted resources and reviews if Metro has appropriate resources at the locations. He added that he does not know if a change was made off the top of his head, but he can ask Mr. Ortiz. He explained that when there are security incidents, people need to contact the security center. Often SSLE is notified of incidents days later. Also, if SSLE sees that contract security is not doing their job, it is investigated, and those individuals are replaced if needed. With parking structures, there is an ongoing battle because lots are wide open for entry. We have been looking at and continue to push for putting fences and maybe an automated gate. Also, using Sky Watch and other types of camaras. For locations with fencing, we are looking to improve the fencing because chain link just does not work anymore. There are also parking areas not controlled by Metro where we do not have jurisdiction. If there are challenges, we need to know about them so we can work with Operations to see what can be done. We cannot stop all crimes, but I think we can mitigate them with some simple solutions and guidance to employees, like the importance of reporting these situations. If security is not notified so we can file a police report and investigate, we are hindered from putting mitigation strategies in place. SSLE has been actively going out to locations to conduct assessments and is in the process getting licenses from the DMV for the use of e-cams. We know the importance of keeping employees and their property safe.
- Mr. Taylor shared that the fences were upgrade at Divisions 1, 2, and 18. Those locations now have a special hardened fence and gate instead of a chain link fence.

3. System Security & Law Enforcement (SSLE) Updates / Issues

❖ There was no discussion on this topic due to time constraints.

4. Bus Operator Barriers

❖ See bullet two in Section 1, Metro Safety Plan, 673.11(7)(i) Risk Reduction Program for Mitigating Safety Events / Injuries.

5. Bus Blind Spots & Pedestrian Safety

- Mr. Wormley asked if there is any update. Mr. Dake explained that they are going to the Board in January for approval to procure two different types of systems and conduct a pilot on Metro vehicles.

6. Employee Assault Notifications

❖ See bullets four and six in Section 1, Metro Safety Plan, 673.11(7)(ii) Risk Reduction Program for Mitigating Transit Worker Assaults.

7. Additional Employee Resources After Distressing Events

❖ There was no discussion on this topic due to time constraints.

8. Open Issues / Discussion and Questions & Answers

<u>Pest Control and Employee Breakrooms</u>

- Mr. Winston explained that a female Custodian was eating in the breakroom and a rat jumped off the refrigerator and into her lap and food. He stated that the event was traumatizing for the employee and that the union receives pictures of rats on Metro property. He added that we know rodents are everywhere, but something needs to be done. Mr. Winston also stated that employees should not be in a breakroom meant for eight employees when twenty employees are in there at the same time. He shared that he met with Mr. Taylor on this matter, and some of the breakrooms are being remodeled, but it has been like this for years.
- Mr. Taylor explained that over the weekend, some major work was occurring at the Union, Civic Center / Grand Park, and Pershing Square stations which were closed for Custodians to perform waxing and detailing. He shared that while he was there, he saw a rat running across the station floor. He added that rats are in Los Angeles and in the system, and Metro has a contract that provides pest and rodent mitigation. He also stated that they are in the process of remodeling break rooms and are checking for how they can find more spaces or the possibility of using trailers. He shared that he found an unused room at a station recently, so now they are going through all the stations to see if there are spaces that can be used for break rooms.
- Errol Frazier stated that pertaining to rodents, the contractor shows up, signs the book, and walks away without doing anything because there is no oversight. He added that no one should have to deal with conditions like this. Mr. Winston shared that when the rat jumped on the employee, she jumped up and hit the table, so her leg is bruised and swollen. He added that now there is a Workers' Compensation claim. Mr. Taylor stated that he would like to report on the supervision of the pest control contractor at the next JLMSC meeting. Ms. Hilyer and Mr. Taylor requested that this topic be added to the next meeting's agenda. Mr. Taylor explained that there is a department that manages the pest control contractor, and he will have an action item to report back and maybe have someone attend the meeting.

Meeting was Adjourned

Follow-Up Items for Next Meeting

NO.	ACTION ITEMS	RESPONSIBLE PARTY	STATUS	STATUS UPDATE
SAFETY ISSUES				
1.	Security at CMF	SSLE – Robert Gummer	During the 11/21/24 JLMSC meeting, Frank Forde asked for an update on if security at CMF is armed or unarmed.	Mr. Gummer to consult with Jose Ortiz on the security posture for CMF and report back to the committee.
2.	Pest Control Contractor	Maintenance & Engineering – Errol Taylor	During the 11/21/24 JLMSC meeting, Mr. Taylor stated that he or a designee would report on the supervision of the pest control contractor.	Mr. Taylor or a designee to report on this topic at the next committee meeting.
3.	Bus Wheel(s) Incidents at Divisions 15 and 18	Safety – Vijay Khawani	During the 11/21/24 JLMSC meeting, Frank Forde inquired into incidents at Division 15 and 18 involving loose wheels on buses.	Mr. Khawani investigated the incidents and provided information which was sent to all committee members via email on 11/27/24.

SUPPORT TASKS – JOINT LABOR MANAGEMENT SAFETY MEETINGS				
1.	Future Meetings	David Huezo	It was requested that the schedule for the next three meetings be noted in the minutes.	Upcoming Meetings Dates ➢ December 10, 2024 ➢ January 14, 2025 ➢ February 11, 2025

Next Meeting:
The next JLMSC Meeting is scheduled for Tuesday, December 10, 2024, at 1:00 p.m. The meeting will be held on the ZOOM virtual platform.

Meeting was Adjourned by: Cristian Leiva, Committee Chair

Minutes were Submitted by: David Huezo, JLMSC Notetaker Date: November 27, 2024

Minutes were Approved by: JLMSC Members in Attendance Date:

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November 22, 2024

Joint Labor Management Safety Committee Ground Rules and Guidelines

The Joint Labor Management Safety Committee (JLMSC) met during the months of September, October, and November 2024 and have mutually agreed on the Ground Rules and Guidelines. The Committee members reserve the right to modify the ground rules and guidelines, if necessary.

1. An equal number of representatives from Los Angeles County Metropolitan Transportation Authority ("Metro") Management and the Labor Unions, are appointed as official members of the JLMSC. Alternate members have also been identified.

2. The Committee agreed to accept the General Chairman of SMART and the Deputy Chief People Officer, Employee & Labor Relations, as the co-Chairs of the JLMSC. New co-Chairs will be selected by the respective Labor and Management Committee Members on an as needed basis as determined by the JLMSC.

3. Rhonda Hilyer will serve as the JLMSC Facilitator and an employee from Metro's Employee & Labor Relations Department will serve in the capacity of Notetaker. Neither the Facilitator nor the Notetaker will influence the decisions under consideration by the Committee members.

4. The Facilitator will moderate the conversation during JLMSC meetings and keep the Committee focused on the topic at issue and move toward resolution of the issue/matter being discussed. The Facilitator will set the tone for the meeting and keep the agenda on-track. When necessary, the Facilitator will meet and conciliate with each Committee team. The Facilitator will assist in creating a respectful, professional, and inclusive meeting environment.

5. The Notetaker will be responsible for scheduling the JLMSC meetings, preparing and distributing Agendas as soon as possible in advance of the meetings, distributing Draft and Final meeting minutes, and tracking action items. Additionally, the Notetaker will be responsible for documenting the discussions that take place during the meetings and for preparing the meeting minutes and an action item log. The Notetaker shall be responsible for maintaining all Meeting Minutes and action item logs.

6. Meeting minutes shall be distributed to the official members and the alternate members as soon as possible after the meetings.

7. The JLMSC will meet monthly. Meetings will be held on the ZOOM platform; Microsoft TEAMS may be used as an alternate platform. Meetings may transition to in-person at a mutually agreed upon date and location.

8. JLMSC meetings will occur on the second Tuesday of the month. The duration of the meetings will be scheduled for two hours. The duration of each meeting is subject to change as determined by the members and the agenda items or, as agreed upon in advance by the JLMSC. The agenda will be established at the end of each meeting. Prior to the next scheduled meeting, any committee member may submit an agenda item to the notetaker.

9. To the greatest extent practical, official members shall attend all Committee meetings. Alternate members will be permitted to attend meetings with allowance of moderated input. A quorum is not necessary to conduct a meeting.

10. Committee members shall be responsible for approving Metro's Public Transportation Agency Safety Plan (PTASP) and any significant updates, setting annual performance targets, submitting agenda items to the facilitator, identifying, and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment. The Committee is also responsible for identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended, identifying safety deficiencies for purposes of continuous improvement, and discussing other safety or security related matters.

11. In addition to the official members, Management and Labor may elect to invite a subject matter expert to present on a particular topic or mitigation strategy. Whenever possible, only one Union-selected and one Management-selected expert per topic will be allowed to present information per meeting. After providing information, experts will be dismissed from the meeting. Union-selected experts will be paid for all time spent attending the meeting.

12. The JLMSC members will use a collaborative approach to work towards discussing and presenting reasonable and practicable mitigations to safety and security issues. A consensus-based approach shall be used in reaching resolution rather than a vote-based approach.

13. It is the responsibility of the JLMSC to manage disputes in order to reach resolutions to ensure the JLMSC carries out its responsibilities.

    Should JLMSC members reach impasse on an issue within their purview as prescribed by the Federal Transit Administration's Final Rule and Regulations (April 11, 2024) the JLMSC co-Chairs shall first meet with the JLMSC facilitator, or other mutually agreed neutral party, to attempt to agree on a resolution to recommend to the entire JLMSC for adoption. The co-Chairs may each appoint up to two additional

JLMSC members and/or subject matter experts to take part in this meeting unless the co-Chairs mutually agree to appoint more. Should these discussions not result in an agreement supported by the JLMSC, the parties shall proceed to binding arbitration in accordance with the applicable provisions of the SMART Collective Bargaining Agreement as outlined in Article 26, Section 7, Subsections (a), (b), (c), which are attached.

Management shall be responsible for any expenses in connection with the presentation of its case, and management shall be responsible to pay half of all arbitration expenses per the SMART Collective Bargaining Agreement provisions.

Each union shall contribute a proportionate amount based on membership numbers for the expenses in connection with the presentation of its case, and each union shall contribute a proportionate amount based on membership numbers for half of all other arbitration expenses per the SMART Collective Bargaining Agreement provisions.

14. The JLMSC will adhere to the Federal Transit Administration's Rule 673.25, Section (d), Subsection (6), issued April 11, 2024, which states, "When a large urbanized area provider's Safety Committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the Accountable Executive decides not to implement the safety risk mitigation, the Accountable Executive must prepare a written statement explaining their decision, pursuant to recordkeeping requirements at §673.31. The Accountable Executive must submit and present this explanation to the transit agency's Safety Committee and Board of Directors or equivalent entity."

15. There shall be no tolerance for retaliation against any safety committee member or Agency employee: (bargaining unit and non-contract) regarding information brought forward or discovered during committee sessions.

16. All safety-related records shall be provided to the committee upon written or oral request. These records may include, but are not limited to:
    - OSHA injury logs
    - Complaints submitted through a safety reporting program maintained by the employer
    - Accident investigation materials and accident reports
    - Vehicle maintenance reports
    - Assault reports
    - Reports from any other workplace committees
    - Agency safety plans and any implementing documents
    - SMS policies and any implementing documents
    - Any other safety policies

The Joint Labor Management Safety Committee Ground Rules/Guidelines have been adopted as recorded below.

Signed and executed this 22nd day of November 2024.

For the JLMSC
Management Committee Members

Cristian Leiva

Cristian Leiva
JLMSC Co-Chair – Management

For the JLMSC
Labor Committee Members

John Ellis
JLMSC Co-Chair – Labor

Witnessed by: Rhonda Hilyer, Facilitator

Notetaker: David Huezo
David Huezo

Distribution:

Union Committee Members	**Alternates**
John Ellis – General Chairman, SMART/UTU	Quintin Wormley/Victor Baffoni
Fred Hines – Vice President, AFSCME, Local 3634	Frank Forde
Judith Serlin – Business Agent, Teamsters, Local 911	Dion Middleton
Jeff Shaffer – President, ATU Local 1277	Errol Frazier
Michael Winston – Chairman, TCU/IAM, Local 1315	Josh Ott

Management Committee Members Alternates

Cristian Leiva – Deputy Chief People Officer	Esther Reed
Conan Cheung – Chief Operations Operator	Matthew Dake/Edna Stanley
Ken Hernandez – Chief Safety Officer (Interim)	Vijay Khawani
Robert Gummer – Deputy Chief SSLE Officer	Nancy Felix
Errol Taylor – Deputy Chief Operations Officer	Leticia Solis

Steve Espinoza, EO, Employee & Labor Services
JLMSC File

Appendix P: Approval of PTASP Version 1.4 by Metro Board of Directors (PENDING)

Public Transportation Agency Safety Plan

Operations, Safety, and Customer Experience Committee

January 16, 2025

File #2024-0982

Metro

Public Transportation Agency Safety Plan (PTASP)

- PTASP required by FTA and CPUC
  - Explains Metro's Safety Processes
  - Data-driven approach to manage hazards
  - Includes performance measures and targets
  - Plan coordinated with internal stakeholders and MPO
  - Plan approved by Joint Labor Management Safety Committee

- Based on Safety Management System (SMS) Principles

  Four Components to SMS:

  1. Safety Management Policy
  2. Safety Risk Management
  3. Safety Assurance
  4. Safety Promotion

Metro

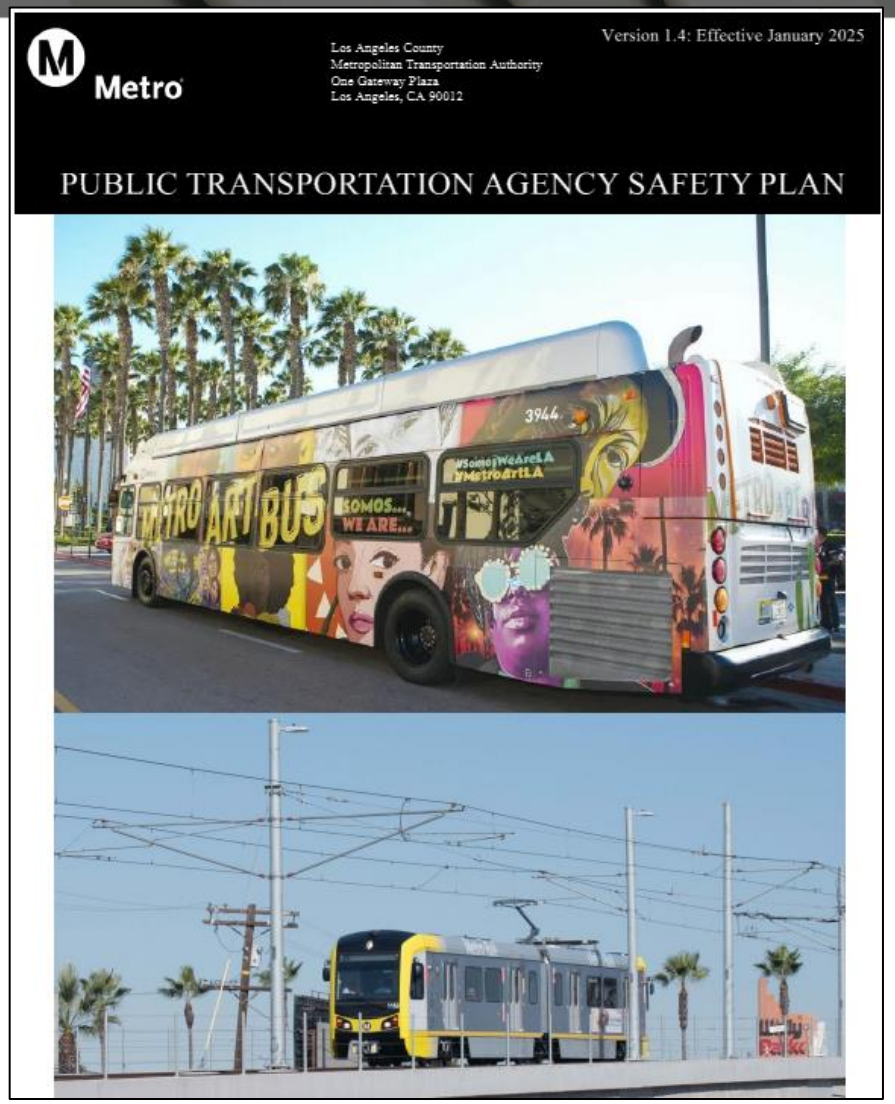
Public Transportation Agency Safety Plan (PTASP)

- Revised to include:
  - Reference to Roadway Worker Protection Program
  - CPUC's Risk Based Inspection Program
  - Updated Safety Performance Measures
  - Risk Reduction Program for Injuries and Transit Worker Assaults
- Incorporated comments from CPUC on draft version
- Board-approved Plan to be submitted to CPUC
- Subject to annual internal safety reviews
- Triennial audits by CPUC and FTA

Metro

Recommendation

Approve the revised Public Transportation Agency Safety Plan (PTASP), Version 1.4, which incorporates new Federal Transit Administration (FTA) requirements related to Safety Management System (SMS) implementation and documents Metro's processes and activities in compliance with Federal and State regulations.



Metro


Thank you
Metro