EXHIBIT A

Public Transportation Agency Safety Plan (PTASP)

City of Dallas Streetcar

City of Dallas
1500 Marilla Street
Dallas, TX 75201

Dallas Area Rapid Transit (DART
1401 N. Pacific Avenue, Dallas, TX 75202

October 2023

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Public Transportation Agency Safety Plan (PTASP) Approvals

The City of Dallas and Dallas Area Rapid Transit (DART) provide certification of compliance with the Public Transportation Agency Safety Plan (PTASP) set forth by the Federal Transit Administration. This compliance includes the signatures of the Dallas City Manager and the DART President & Chief Executive Officer, who have verified that the document held within has met all the applicable compliance standards contained within the Code of Federal Regulations 49 Part 673 and the Texas State Safety Oversight Agency Program Standard.

This Public Transportation Agency Safety Plan was adopted by the City of Dallas on January 27, 2021, by City Council Resolution 20-1423 *(Please see Appendix XIX)*

APPROVED BY:

Name and Title	Signature	Date
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ENDORSED BY:

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RECOMMENDED BY:

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Revision History

Revision Number	*Revision Date*	*Description*
0	May 2020	Initial Draft and Release
1	December 2020	Annual Update
2	September 2021	Annual Update
3	October 2022	Annual Update
4	October 2023	Annual Update

Acronyms

Acronym	Definition
AE	Accountable Executive
AHJ	Authorities Having Jurisdiction
ASP	Agency Safety Plan (interchangeable with PTASP)
CAP	Corrective Action Plan
CBD	Central Business District
CFR	Code of Federal Regulation
CITY	City of Dallas
CM	City Manager
CRC	Certification Review Committee
CSO	Chief Safety Officer
DART	Dallas Area Rapid Transit
DSSC	Director of Systems Safety and Certification
EAP	Employee Assistance Program
ELT	Executive Leadership Team
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
ERRTC	Executive Round Table Review Team Committee
ESS	Energy Storage System
FLSC	Fire Life Safety Committee
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HAZCOM	Hazardous Communications
HMP	Hazard Management Program
HRI	Hazard Risk Index
ILA	Inter Local Agreement
KPI	Key Performance Indicators
LRT	Light Rail Transit
LRV	Light Rail Vehicle
LRWPP	Light Rail Worker Protection Program

Acronym	Definition
MAXIMO/SPEAR	Maintenance Management System
MPO	Metropolitan Planning Organization
NCTCOG	North Central Texas Council of Government
NFPA	National Fire Protection Association
NTD	National Transit Database
NTSB	National Transportation Safety Board
ODC	Operations Document Control
OE	Operations Engineering
OSONOC	Other Safety Occurrence Not Otherwise Classified
OSHA	Occupational Safety Health Administration
PMI	Preventive Maintenance Inspections
PPE	Personal Protective Equipment
PTSCTP	Public Transportation Safety Certification Training Program
PTASP	Public Transportation Agency Safety Plan (interchangeable with PTASP)
RFGPTS	Rail Fixed Guideway Public Transportation System
RMIS	Risk Management Information System
RSC-JLM	DART Rail Safety Committee – Joint Labor Management
RTA	Rail Transit Agency
SA	Safety Assurance
SC	Dallas Streetcar
SDS	Safety Data Sheet
SME	Subject Matter Expert
SMP	Safety Management Policy
SMS	Safety Management System
SOP	Standard Operating Procedures
SP	Safety Promotion
SPB	Standard Practice Bulletins
SPCC	Spill Prevention Controls and Countermeasures
SRM	Safety Risk Management
SSCP	Safety and Security Certification Plan

Acronym	Definition
SSOA	State Safety Oversight Agency
SSOPS	State Safety Oversight Program Standard
SWP3	Storm Water Pollution Prevention Plans
TAC	Texas Administrative Code
TCC	Train Control Center
TCEQ	Texas Commission on Environmental Quality
TDSHS	Texas Department of State Health Services
TES	Track Electrification Services
TIGER	Transportation Investment Generating Economic Recovery
TVA	Threat and Vulnerability Analysis
TxDOT	Texas Department of Transportation
USC	United States Code
WI	Work Instructions

Definitions

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

Accountable Executive is DART's President & Chief Executive Officer who has who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of DART; accountability for carrying out the DART's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both DART's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and DART's Transit Asset Management Plan in accordance with 49 U.S.C. 5326. For the Dallas Streetcar, the Accountable Executive is the City Manager.

Accountability is a statement of which an individual is required to achieve, directly or through those to whom the individual has delegated responsibility, with regard to the operation of Safety Management System.

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

Assault on a transit worker is a circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker. (As defined under 49 U.S.C. 5302)

CDC is the Centers for Disease Control and Prevention of the United States Department of Health and Human Services.

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

City Manager is appointed by the elected City Council and is responsible for the daily operations of the municipal organization. The City Manager manages a staff of approximately 14,000 employees and a budget of nearly 4.75 billion.

City of Dallas, Streetcar Representative is the City staff person assigned to represent the City in the day-to-day operations as established in the Interlocal Agreement between the City and DART. The Streetcar Representative participates in the preparation of the PTASP, the Safety Audit, and annual system certifications and when completed makes recommendations for approval to the City Manager.

Commission is the Texas Transportation Commission.

Contractor is an entity that performs tasks on behalf of FTA, a State Safety Oversight Agency, or a Rail Transit Agency, through contract or other agreement.

Corrective Action Plan is a plan developed by DART that describes the actions that DART will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a State Safety Oversight Agency or FTA may require DART to develop and carry out a corrective action plan.

DART Senior Management is Director and above (e.g., AVP, Directors, VP, ELT)

(Appendix B)

DART Executive Leadership is the Leadership Roundtable Team who are direct reports to the CEO (e.g., VP and above) *(Appendix B)*

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

Fatality is a death that results from an event and that occurs within 30 days after the date of the event.

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

FTA is the Federal Transit Administration, an agency within the United States Department of Transportation.

Goal is desired result that DART, or the City foresees, plans and commits to achieve.

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

Investigation is the process of determining the causal and contributing factors of a safety event or hazard, for the purpose of preventing recurrence and mitigating safety risk.

Joint labor-management process is a formal approach to discuss topics affecting transit workers and the public transportation system.

National Public Transportation Safety Plan is the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53. *NTSB* means the National Transportation Safety Board, an independent Federal agency.

Near-miss means a narrowly avoided safety event.

NTSB is the National Transportation Safety Board, an independent Federal agency.

Objective is a thing aimed at or sought; a goal or Specific measurable statement that supports achievement of the goal.

Operator of a public transportation system is a provider of public transportation.

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

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

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

Pre-revenue Operations is operation of the rail fixed guideway public transportation system prior to revenue service that includes identification and performance of tests, drills, exercises, and audits designed to verify the functional capability and readiness of the system.

Potential Consequence is the effect of a hazard.

Public transportation is regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income; and does not include (as defined under 49 U.S.C. 5302):

- intercity passenger rail transportation provided by the entity described in
- 49 U.S.C. chapter 243 (or a successor to such entity);
- intercity bus service;
- charter bus service;
- school bus service;
- sightseeing service;
- courtesy shuttle service for patrons of one or more specific establishments; OR
- intra-terminal or intra-facility shuttle services.

Public Transportation Agency Safety Plan (PTASP) is the documented comprehensive DART's safety plan that is required by 49 U.S.C. 5329(d).

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

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

Rail Transit Agency (RTA) is any entity that provides services on a rail fixed guideway public transportation system. For the purposes of this PTASP, any reference to RTA would be the same as DART.

Revenue Service is operation of the rail fixed guideway public transportation system to carry passengers that pay fares, provide payment through a contractual arrangement, or have the fares subsidized by public policy. Vehicles operated in fare free service are considered in revenue service.

Responsibility means functions and duties that describe the purpose of what an individual is required to do with regard to the operation of the Safety Management System.

Roadway is land on which DART tracks and support infrastructure have been constructed to support the movement of DART's Light Rail and City of Dallas Streetcar vehicles, excluding station platforms.

Safety is freedom from harm resulting from unintentional acts or circumstances.

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

Safety Committee is the formal joint labor-management committee on issues related to safety that is required by 49 U.S.C. 5329.

Safety Event – is an unexpected outcome resulting in injury or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Safety Management Policy is a transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities for the management of safety.

Safety Management System (SMS) is the formal, 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.

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

Safety performance target is a performance target related to safety management activities.

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

Safety risk is the composite of predicted severity and likelihood of a potential consequence of a hazard.

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

Safety Risk Management (SRM) is a process within a Rail Transit Agency's Safety Plan for identifying hazards and analyzing, assessing, and mitigating the safety risk of their potential consequences.

Safety risk mitigation is a method or methods to eliminate or reduce the severity and/or likelihood of a potential consequence of a hazard.

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

State of Good Repair is the condition in which a capital asset is able to operate at a full level of performance.

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

Substantial Damage is damage to transit or non-transit property including vehicles, facilities, equipment, rolling stock, or infrastructure that disrupts the operations of the rail transit agency and adversely affects the structural strength, performance, or operating characteristics of the property requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation.

System Reliability The system reliability measure expresses the relationship between safety and asset condition. The rate of vehicle failures in service, defined as mean distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures.

Transit agency is an operator of a public transportation system that is a recipient or subrecipient of Federal financial assistance under 49 U.S.C. 5307 or a rail transit agency.

Transit Asset Management Plan is the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part625.

Transit worker is any employee, contractor, or volunteer working on behalf of the transit agency.

Vehicle is any rolling stock used on DART's Rail Transit vehicle tracks, including but not limited to passenger and maintenance vehicles.

I. FORWARD

The Dallas Streetcar is a City of Dallas owned transit facility which is operated and maintained by Dallas Area Rapid Transit (DART) through interlocal agreements.

The Dallas Area Rapid Transit (DART) system was organized with the mission to benefit the region by providing a sustainable system of innovative, affordable, reliable and safe mobility options for our riders that enhances the quality of life and stimulates economic development. Accordingly, safety is a primary concern that affects all levels of DART activities including the operations, maintenance, and administrative functions of the organization. All employees and contractors of DART are expected to conduct their duties safely, aimed at preventing, controlling and minimizing undesired events, such as customer or employee injury, equipment or property damage, or degradation to system safety in any DART function. Employees and customers are DART's most important assets, and their safety is DART's greatest responsibility.

While minimizing unsafe conditions in DART's transportation system and facilities is the responsibility of each employee, they are first and foremost the responsibility of DART's management and City of Dallas. DART and City of Dallas are fully committed to providing a safe work environment, and safe vehicles, systems, and facilities.

The Federal Transit Administration's (FTA) final rule, 49 CFR Part 673, Public Transportation Agency Safety Plan, became effective on July 19, 2019. This rule requires operators of Public transportation systems that receive federal funds under the FTA Urbanized Area Formula Grants-5307, such as the City of Dallas, to establish an Agency Safety Plan (ASP) by July 19, 2020, that meets the requirements of 49 CFR Part 673. The PTASP must at a minimum:

1. Be signed by the Accountable Executive and approved by the agency's Board of Directors, or an Equivalent Authority.
2. Document the processes and activities related to Safety Management System (SMS) implementation.
3. Include performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.
4. Address all applicable requirements and standards set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan.
5. Establish a process and timeline for conducting annual reviews and updates of the PTASP.
6. Include or incorporate by reference an emergency preparedness and response plan or procedures that address, at a minimum, the assignment of employee responsibilities during an emergency, and coordination with Federal, State, regional, and local officials with roles and responsibilities for emergency preparedness and response in the transit agency's service area.

As DART operates Dallas Streetcar system on behalf of the city and subject to FTA's State Safety Oversight (SSO) Program, as stated in 49 CFR Part 674, DART has developed this PTASP in compliance with 49 CFR Part 673 and the Texas Department of Transportation (TxDOT) SSO Agency's Program Standard. This PTASP requires annual review and revision (as necessary) and subsequent approval by the City Council. (Please see Appendix XIX) Each of DART's divisions and department management teams are charged with the responsibility of implementing and assuring the success of the PTASP.

II. SCOPE AND SYSTEM DESCRIPTION

The Public Transportation Agency Safety Plan (PTASP) applies to the City of Dallas Streetcar operations affected by the planning, design, construction, procurement, testing, operation, and maintenance of its Streetcar transit systems. Safety issues affecting all units within the rail division of DART are managed in accordance with the procedures outlined in this PTASP. DART's *Safety Management Policy Statement*, which articulates the commitment of DART's President & Chief Executive Officer to DART's Safety Management System (SMS) and the implementation of this PTASP, is included in **Appendix I**. Organization charts depicting DART's structure and hierarchy are included in **Appendix II**. The City of Dallas Organization Chart and hierarchy are depicted in **Appendix III.**

DART Mission Statement

DART's mission statement defines the purpose for which the Agency was created and is stated as follows:

> "To benefit the region by providing a sustainable system of innovative, affordable, reliable safe mobility options for our riders that enhances the quality of life and stimulates economic development."

Service Area

The Comprehensive Transportation Plan for the Dallas Central Business District, adopted by City Council on June 8, 2005 (Resolution No. 05- 1759) recommended a balanced transportation network which included the development of a Streetcar system to enhance circulation. In 2011, the City of Dallas (CITY), Dallas Area Rapid Transit (DART), and the North Central Texas Council of Government (NCTCOG) executed an Interlocal Agreement (ILA**) (Appendix IV)** which detailed the roles and responsibilities related to the development of the modern Dallas Streetcar System. This ILA established:

- NCTCOG as the grantee for Federal Transit Administration (FTA) funds including Transportation Investment Generating Economic Recovery (TIGER) funds.
- CITY as the owner of the Dallas Streetcar.
- DART as the Technical Advisor and Owner's Representative for the Dallas Streetcar.

The use of TIGER funds brings the Dallas Streetcar under FTA regulations including 49 CFR 659, Rail Fixed Guideway Systems. FTA has delegated oversight and the task of ensuring compliance with these federal regulations to the State Safety Oversight office within the Texas Department of Transportation (TxDOT).

Dallas Streetcar Facilities

Description of the Dallas Streetcar System

The Dallas Streetcar system is operated with a fleet of four modern Streetcars vehicles that are 66 feet long and weigh 81,900 pounds. Each Streetcar is operated by onboard energy storage system (ESS), consisting of a rechargeable battery pack, which is recharged by raising the pantograph whenever operating in overhead catenary territory. The catenary is energized by a traction power substation that supplies high voltage. Each Streetcar are housed at DART's Central Rail Operating Facility and must travel over existing DART alignment to reach the Streetcar system. **Appendix VIII** list the Dallas Streetcar Fleet Stock.

The Union Station Stop is located at the corner of Young Street and Houston Street in downtown Dallas. Overhead catenary is available at this stop for recharging the ESS on board the Streetcars. The Streetcar travels across the Trinity River via the Houston Street Viaduct utilizing the ESS along a single track (approximately one mile). Once across the viaduct, the pantograph is raised up to the overhead catenary and is operated in that manner to the end of the line in the Bishop Arts District. The Dallas Streetcar system map is found in **Appendix XVIII**.

After the Houston Street Viaduct, the system transitions to double track along Zang Boulevard, and then turns west on Colorado Boulevard then south on Beckley then southwesterly back on Zang Boulevard to its southerly terminus at 7th Street. There is a switch installed at Bishop Arts stop that allows movement from the southbound track to the northbound track. There is a tail track at the end of the line to allow for additional Streetcar storage
Six stops are located along the route:

- Union Station (South Houston Street at Young Street)
- Zang Boulevard at East Greenbriar Lane
- Zang Boulevard at East Oakenwald Street
- West Colorado Boulevard at North Beckley Avenue
- Zang Boulevard at West 6th Street
- Zang Boulevard at West 7th Street

Traction power substations are located near the stop at Greenbriar and near the southerly terminus. Traction power is also available from DART's LRT system at the Union Station stop.

III. MODE(S) OF SERVICE COVERED BY THE PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

The current Dallas Streetcar PTASP applies to all Dallas Streetcar operations.

IV. PTASP/ SMS EXECUTIVES

Accountable Executive

The City Manager is designated as the Agency's Accountable Executive. As such, the City Manager is accountable for ensuring that a Safety Management System (SMS) is in place and is effectively implemented throughout the Dallas Streetcar system.

DART's President & Chief Executive Officer

The President & Chief Executive Officer is designated as the DART's Chief Executive. As such, the President & Chief Executive Officer is responsible for ensuring that DART's Safety Management System (SMS) is in place and is effectively implemented throughout the Dallas Streetcar system. Additionally, the President & Chief Executive Officer is responsible for ensuring action is taken to address substandard performance in the Agency's SMS.

Chief Safety Officer

The Vice President, Chief Safety Officer (CSO) is designated by DART's President & Chief Executive Officer as the SMS Executive. The Vice President, CSO holds a direct line of communication and reporting to the President & Chief Executive Officer. As an adequately trained senior leader at DART, the Vice President, CSO has the authority and responsibility for the establishment, implementation and operation of a compliant PTASP. The Vice President, CSO is also responsible for the implementation of SMS throughout the DART organization. This responsibility includes:

- Planning and fostering a positive SMS culture.
- Ensuring the PTASP is reviewed annually (and updated as needed).
- Coordinating Safety Risk Management (SRM) across the DART organization.
- Overseeing and coordinating Safety Assurance practices throughout the DART organization.
- Monitoring safety performance and targets through data collection and analysis.
- Tracking of safety critical issues.

The Vice President, CSO does not serve in other operational or maintenance capacities.

AVP Streetcar-Systems Engineering

The AVP Streetcar-Systems Engineering is a primary contact between the City of Dallas and DART. This individual is a key member of the Rail Safety Committee and advises DART's position while working in conjunction with City of Dallas personnel on all streetcar concerns.

City of Dallas Streetcar Management

As owner of the Dallas Streetcar, the city through the Department of Transportation has responsibility for oversight of DART's performance and management of the Dallas Streetcar system. (See **Appendix III** for City of Dallas Organization Chart)

City of Dallas, City Manager

The City Manager is the Accountable Executive for the Dallas Streetcar. The City Manager is appointed by the elected City Council and is responsible for the daily operations of the municipal organization. The CM manages a staff of approximately 14,000 employees and a budget of nearly 4.75 billion.

V. PURPOSE, GOALS, AND OBJECTIVES

Purpose

The purpose of the PTASP is to establish formal mechanisms each DART department must use to identify hazards associated with streetcar system; eliminate, minimize or control hazards; and to prevent injuries, accidents and other losses. The PTASP demonstrates the City's and DART's commitment to safety and compliance with Federal, State and local regulations.

Goals

The goals of the PTASP are to establish processes and procedures that will:

- Enable the identification, elimination, minimization and control safety hazards and their risks.
- Allow DART to maintain a superior level of safety in its transportation operations and in work environments.
- Comply with the applicable requirements for regulatory agencies.
- Maximize the safety of future operations through design, procurement, construction, and testing processes.

Objectives

Senior management for the City of Dallas and DART are responsible for providing leadership in promoting safety and ensuring employees are committed to the safety of customers, employees, property, and the public coming in contact with the system. Each DART department is directed and empowered to administer the PTASP and its specific activities for the prevention, control, and resolution of unsafe conditions and actions. A successful safety record for the Streetcar results from the use of this plan, as well as from the regular review and revision process in place to keep the PTASP current.

The following objectives help achieve these safety initiatives. Each Department is responsible for establishing activities and goals to assist DART in meeting these principal objectives. **Appendix VII** has detailed information regarding tasks and responsibilities that facilitate achievement of these objectives.

- Establish safety policies, procedures and requirements that integrate safety into DART's decision-making and operations.
- Hire and train qualified personnel.
- Assign responsibility related to safety policies, procedures, and requirements.
- Establish standards and procedures for safety training and performance.
- Verify employee adherence to safety policies, procedures, and requirements.
- Meet or exceed safety requirements in specifications, facility construction, equipment installation, vehicle operations and maintenance, and system testing, operations and maintenance.
- Evaluate routes and scheduling for safety issues.
- Evaluate and verify the operational readiness of new transportation systems.
- Evaluate the safety implications of proposed modifications prior to implementation.
- Investigate accidents, fires, injuries, and incidents.
- Identify, analyze, and resolve hazards in a timely manner.

VI. STATE SAFETY OVERSIGHT AUTHORITY

In 1997, the Texas Legislature enacted Senate Bill (S.B.) 735 designating the Texas Department of Transportation (TxDOT) as the SSOA. TxDOT derives its authority through Texas Transportation Code, Chapter 455, General Powers and Duties of Department of Transportation Regarding Mass Transportation.

During the 85th Regular Legislative Session, S.B. 1523 was enacted on June 1, 2017. This statute provides TxDOT the authority to establish and enforce minimum standards for the safety of all Rail Transit Agencies (RTA) within its oversight. These standards are consistent with the National Public Transportation Safety Plan. Public Transportation Safety Certification Training Program, rules for Public Transportation Agency Safety Plans, and all other applicable federal and state laws.

Chapter 7, Subchapter E. - Rail Fixed Guideway System State Safety Oversight Program, of the Texas Administrative Code (TAC) describes how TxDOT will carry out its SSO Program responsibilities consistent with both State and Federal requirements. DART's Dallas Streetcar system is subject to these standards and requirements.

On March 16, 2016, FTA published 49 CFR Part 674 to carry out the mandate of 49 U.S.C. 5329(e) for States to perform oversight of rail fixed guideway public transportation systems within their jurisdictions. TxDOT's SSO Program, as documented in its SSO Program Standard, has been established to meet these updated requirements.

VII. PTASP Development, Annual Review, and Updates

FTA Requirements

Published in July 2018, 49 CFR, Part 673, establishes requirements for PTASPs in order to carry out the explicit statutory mandates of the Moving Ahead for Progress in the 21st Century Act (Pub. L. 112-141; July 6, 2012) (MAP-21), which was reauthorized by the Fixing America's Surface Transportation Act (Pub. L. 114-94; December 4, 2015) (FAST Act), and codified as 49U.S.C. 5329(d) to strengthen the safety of public transportation systems receiving Federal financial assistance under 49 U.S.C. Chapter 53. The rule requires Rail Fixed Guideway Public Transportation Systems to adopt SMS principles and methods; to develop, certify, implement, and update PTASPs; and to coordinate PTASP elements with other FTA programs and rules, as specified in 49 U.S.C. 5303, 5304, and 5329. 49 CFR Part 673 became effective on July 19, 2019, and DART was required to have its PTASP approved by TxDOT's SSO Program by July 20, 2020.

SSO Program Standard Requirements

As stated in TxDOT's SSO Program Standard, dated August 2023, Section 4.1, Public Transportation Agency Safety Plans (PTASP):

Section 4.2, PTASP General Requirements, further states:

"The PTASP must comply with 49 CFR 673.11 General Requirements, which include the following elements:

(1) The Public Transportation Agency Safety Plan, and subsequent updates, must be signed by the Accountable Executive and approved by the agency's Board of Directors, or an Equivalent Authority.

(2) The Public Transportation Agency Safety Plan must document the processes and activities related to Safety Management System (SMS) implementation, as required under Subpart C of 49 CFR 673.

(3) The Public Transportation Agency Safety Plan must include performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. NOTE: the RTA must coordinate with their MPO and State to communicate their safety performance measures

(4) The Public Transportation Agency Safety Plan must address all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan. Compliance with the minimum safety performance standards authorized under 49 U.S.C. 5329(b)(2)(C) is not required until standards have been established through the public notice and comment process.

(5) Each transit agency must establish a process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

(6) A rail transit agency must include or incorporate by reference in its Public Transportation Agency Safety Plan an emergency preparedness and response plan or procedures that addresses, at a minimum, the assignment of employee responsibilities during an emergency; and coordination with Federal, State, regional, and local officials with roles and responsibilities for emergency preparedness and response in the transit agency's service area."

(7) A rail transit agency must maintain documents that set forth its PTASP, including those related to the implementation of its safety management system (SMS) processes, for a minimum of three years after the records were created.

VIII. ANNUAL REVIEW AND UPDATE OF THE PTASP

The PTASP is reviewed on an annual basis. The annual rail safety review triggers the document review and update process. Per 49 CFR Part 673.11(a)(4), DART in conjunction with the City of Dallas is required to annually assess its PTASP to determine if modifications or updates are necessary. DART in conjunction with the City of Dallas conducts this annual review to ensure the PTASP is current and in compliance with Federal rules and those of the TxDOT SSO Program. TxDOT requires DART's PTASP be submitted for assessment no later than October 1st of each year.

When DART submits the PTASP for initial approval, a review template detailing the page number, section and location of each required element, is required. DART in conjunction with the City of Dallas is required to submit referenced material and supporting procedures to document how each required element is addressed. The revised PTASP must be approved by DART no later than December 31st and submitted to TxDOT no later than January 31st. The PTASP and supporting procedures are submitted electronically to TxDOT.

Per TxDOT's SSO Program Standard, Dallas Streetcar's annual submittal to TxDOT SSO must include documentation of the Accountable Executive approval with resolution, proclamation, meeting minutes, or other official action which evidences the City's formal approval.

Annual PTASP Update Procedures

The following departments and personnel are responsible for initiating, developing, approving, and issuing changes to the PTASP:

- Vice President, Chief Safety Officer
- AVP of Agency Safety & Compliance
- Director Agency Safety & Compliance
- Senior Management
- Rail Safety Committee – Joint Labor Management (RSC-JLM)
- DART President & Chief Executive Officer (DART Endorsement)
- Dallas Streetcar Representative
- Dallas Director, Department of Transportation
- City Manager (Accountable Executive approval)

The City Streetcar Representative participates in the annual review of the PTASP and may propose revisions to the Vice President – Chief Safety Officer when appropriate.

Revisions of the PTASP are submitted to TxDOT, for review and approval, under the signature of the Dallas City Manager. The submission includes a summary that identifies and explains the changes, and the time frame for completion of the associated activities. In the event the PTASP is modified, the City Manager, City of Dallas submits the revised PTASP, along with any changes to procedures, to TxDOT. TxDOT will review for approval within 45 calendar days of the effective date of the change.

After submission of an updated Dallas Streetcar PTASP, TxDOT will acknowledge receipt within 10 days. If submission is favorable for review, TxDOT will acknowledge acceptance within 30 days. A TxDOT request or any number of other variables could warrant an assessment and update of the PTASP more frequently than the annual minimum. New regulations, significant organizational structure changes, and/or internal or external audit review activities could prompt additional assessments. DART's Agency Safety & Compliance, including the City of Dallas Streetcar Representative works closely with TxDOT SSO for guidance and technical assistance during the PTASP approval process.

If the PTASP submission is not sufficient for approval, TxDOT notifies DART and requests additional documentation or clarification. Upon receipt of requested information, the process restarts. If the PTASP fails to comply with the TxDOT SSO Program Standard, the City Manager and DART's President & Chief Executive Officer is formally notified via letter. A completed checklist identifying the required changes and any required documentation accompanies the TxDOT letter.

If the City Manager determines that the PTASP is not current, the letter must detail an action plan to achieve compliance. Once PTASP approval occurs, the City is required to submit a formal letter of certification signed by the City Manager notifying TxDOT that the PTASP is current and in compliance with TxDOT SSO Program Standard.

PTASP Annual Certification

On an annual basis, the Vice President, CSO completes a comprehensive review of the PTASP in conjunction with the City of Dallas Streetcar Representative, addresses needed updates, and ensures that the PTASP is compliant with 49 CFR Part 673 and the TxDOT SSO Program Standard. Upon final certification, the Vice President, CSO reviews the final PTASP with the President & Chief Executive Officer, City Manager, ensuring that all signatures (including City Council approval) are included on the approval page of the PTASP.

In the event that no revision is required, the City Manager, notifies TxDOT, in writing with a formal letter of compliance that the annual review was performed, and no revision was needed.

If the City Manager cannot attest to substantial compliance, the annual certification letter must include a plan describing the process that will be used to update the PTASP and provide a timeframe for completion.

IX. EMERGENCY PREPAREDNESS AND RESPONSE PLAN

The DART Emergency Preparedness Section of DART is directed by the DART Chief of Police and Emergency Management. It is responsible for all agency level emergency response and contingency plans. The Emergency Preparedness Manager works with Emergency Management Coordinators in member cities and counties to ensure there is a unified emergency response among DART's member cities. Coordination takes place through meetings, email, phone conferences or other means as determined by the Emergency Management Coordinators.

The section also participates in emergency response groups in the region and member cities. Regularly scheduled meetings include:

- Regional Sheltering Working Group
- Dallas County Family Assistance Working Group
- Regional Training and Exercise Working Group
- Regional Emergency Managers

These meetings keep emergency managers and DART responders apprised of current issues and address Federal and State requirements to ensure inter-agency contact information is current and that appropriate measures known and can be taken during serious, unexpected, and or dangerous situations requiring immediate action for incidents involving DART assets.

The DART Emergency Preparedness Manager works with City of Dallas Office of Emergency Management to ensure there is a unified emergency response to the Dallas Streetcar. As a City of Dallas asset, all hazard response to emergencies involving the streetcar, such as street flooding or icing, are covered by the City of Dallas Emergency Operations Plan. Transit specific emergencies will initially be handled by DART but may escalate to City coordination. Continual coordination with the City of Dallas OEM takes place through meetings, email, phone conferences or other means as necessary.

DART Emergency Preparedness uses FEMA and APTA guidelines, lessons learned and industry best practices, to refine and improve our emergency preparedness plans and procedures. Changes in DART's Emergency Preparedness policies and procedures can be made in response to the findings presented in the exercise or actual incident debriefings. For any public health emergency, DART works closely with city and county public health departments. DART will follow Center for Disease Control and Prevention (CDC) and State health authority guidelines to minimize exposure of the public and personnel to infectious diseases. (See Administrative Policy No. 5.03).

The DART Emergency Preparedness section maintains a Multi-Year Training and Exercise Plan that projects agency and regional exercises quarterly. This plan is updated annually. The Emergency Operations Plan (EOP) is also reviewed annually and revised as necessary to ensure it incorporates lessons learned and is in-line with current Federal and industry guidelines and requirements. The EOP is available to all employees through the InfoStation library and to local responders. The EOP may be reviewed by Federal and State stakeholders upon request and on-site at DART's headquarters.

Weather specific information, such as tornado shelter locations and winter weather preparation, is updated annually and posted on InfoStation. Active threat training is available through the Police Department or on-line through the Federal Emergency Management Agency (FEMA) independent study training. Other information on topics of interest is provided by InfoStation or through the digital dashboard.

Emergency Exercises

DART plans regional exercises developed to provide responders with familiarity with DART vehicles and properties to ensure responders are knowledgeable of DART response activities that will occur in the field as well as our emergency response structure. DART also participates in local and regional exercises to ensure agencies and local responders take the unique capabilities and knowledge of our personnel and how that can be used to assist with emergency events or disasters. The DART Emergency Preparedness Section coordinates with DART departments and first responders for effective joint training exercises. Objectives of the training exercises are to:

- Practice group problem solving.
- Familiarize DART senior officials with DART's emergency plans, procedures, and policies.
- Evaluate the effectiveness of standard operating procedures.
- Familiarize local jurisdictions with DART's emergency plans, procedures, and policies.
- Examine personnel contingencies.
- Test consistency of group message interpretations.
- Participate in information sharing.
- Assess interagency communication and coordination.

DART participates in state and regional exercises and conducts after action reviews to ensure lessons learned are incorporated into the emergency preparedness programs of all participants. Participants include counties, cities, towns, police departments, fire departments, hospitals, airports, emergency management, and specialized response teams such as SWAT, HAZMAT, and USAR. The number and type of participants vary in accordance with the exercise. This is a regional effort.

Agency Safety & Compliance collaborates with the Emergency Preparedness group as participants on exercises and coordinates agency policy that affect the entire organization. Agency Safety & Compliance Program Managers attend exercises, simulations and tabletop exercises to ensure that measures are in place to safeguard property, participants, stakeholders and the public at large.

After Action Reviews are conducted by the Emergency Preparedness group for exercises and major real-world incidents. Observations and findings are compiled into Improvement Plan matrix by the Manager of Emergency Preparedness and the DART Chief Safety Officer, who assigns responsibility and timelines. With this collaborative effort, the observations and findings are tracked to completion and documented following TxDOT's Program Standard.

Emergency Response

Emergency response actions are detailed in the Emergency Operations Plan. DART's Emergency Operations Center is activated when the President & Chief Executive Officer or their designee determines that service interruptions beyond the norm or the potential of public or employee harm is imminent. In the EOC structure the executive management team, the Chief Safety Officer, and department heads form an advisory group to assess mitigations and strategize how best to communicate, partner, resolve and reduce the risk of each event to an acceptable level. The Manager of Emergency Preparedness is the designated EOC Director. With direction from the President & Chief Executive Officer, the EOC Director will coordinate response efforts across the agency and with partner agencies to utilize their individual resources and expertise to reduce or eliminate the event causations. The Chief Safety Officer is responsible for ensuring all response plans are executed in accordance with all Safety regulations.

Upon a return to normalcy, usually within 10 business days, an after-action review is scheduled by the Manager of Emergency Preparedness to analyze the event, determine if lessons learned occurred and to determine if future events of a similar nature, can best be processed differently to stream-line the effectiveness of the agency response.

Emergency Response Training

System familiarization training is scheduled bi-annually for local fire departments. This training is also available out-of-cycle at the request of the response organization. The DART Emergency Preparedness section also offers a training program in conjunction with the Dallas Fire Rescue Academy to have ALL trainees receive familiarization training on buses, light rail vehicles, and the north central tunnel training is coordinated with the necessary DART departments and agencies. Records for training are maintained by the local responders' organization. Summary after action reviews of agency exercises and Improvement Plans due to real-world emergencies are written and maintained by the Emergency Preparedness Section. Any training videos created during exercises are provided to all appropriate responders as a training tool.

DART recognizes the importance of providing emergency information to our customers. Marketing provides on-board security brochures to educate passengers on what to consider suspicious and how to report an incident. Incidents can be reported through the DART Say Something app or through GoPass.

The *Emergency Preparedness Guide for Transit Employees on the Job and at Home* is available to all employees on the FTA website. Employees are notified of new emergency conditions or special events that may require modification to or activation of DART's emergency response program via email, internet postings, bulletins, notification to the ERRTC or at quarterly security meetings hosted by DART Police.

X. SAFETY PERFORMANCE TARGETS

Pursuant to 49 U.S.C. § 5329(d), Dallas Streetcar's PTASP includes safety performance targets based on the safety performance measures in the National Safety Plan. These measures help to inform DART staff of the actions required to be taken to improve City of Dallas's safety outcomes and SMS. City of Dallas's performance targets are specific, measurable, attainable, relevant, and time-bound (SMART). Safety Performance are produced by the data compliance section of Agency Safety & Compliance. Historical data is for each category of the seven FTA guidance measures provided by part 673.15(b) for RTAs continuous improvement processes. Each measure is vetted by the DART Chief Safety Officer who will communicate on behalf of the City of Dallas with TxDOT SSOA Program Manager and the local Metropolitan Planning Organization (MPO) for guidance and concurrence in establishing relevant targets.

Agency Safety & Compliance captures all reported safety events that occur during transit operations and the performance of regular supervisory or maintenance activities. A reduction in safety events will support efforts to reduce fatalities and injuries, as well as damages to transit assets. Measuring the number of safety events by mode over vehicle revenue miles provides a safety event rate from which future performance can be compared.

As part of the annual review of the Dallas Streetcar PTASP, Agency staff reevaluate safety performance measures and determine how the measures should be refined, sub-measures developed, and performance targets selected. Safety performance data is gathered monthly by Agency Safety & Compliance in part in reporting agency Key Performance Indicators. These indicators are distributed quarterly to executive management and correlated with historical targets set by the VP of Rail Operations.

Fatalities, Injuries, Safety Events, and System Reliability

Dallas Streetcar's safety performance targets for Fiscal Year 2024 are included below. Each target category is included as a rate per 10,000 miles and a total number of incidents, not to exceed annually.

FY 23 Performance Targets	**10K Performance Target**	**Not to Exceed Annually**
Fatalities	0.02	1
Injuries	0.02	1
Safety Events	0.26	2
System Reliability	1.00	10

Coordination with SSO

The Sr. Manger of Safety Data and Compliance creates annual safety performance targets using historical baselines as projections and utilizes input from the Chief Safety Officer determines the aggressiveness of each forecasting indicator. Annually this matrix is presented to the agency stakeholders and the TxDOT SSOA Program Manager for guidance. The process of setting targets and measuring progress reflects the increased expectations for improving transit safety.

Each year during September, the Chief Safety Officer will provide a matrix of FTA mandated Safety Performance Targets proposals for review to the TxDOT SSOA Program Manager. Once communicated, these targets will also be forwarded to the regional Metropolitan Planning Organization (MPO) via e-mail.

Coordination with Metropolitan Planning Organization (MPO)

The North Central Texas Council of Governments (NCTCOG) is the local Metropolitan Planning Organization (MPO) that is the policy board of an organization created and designated to carry out the metropolitan transportation planning process. This organization continues to set priorities for implementing projects listed in the transportation improvement program and are responsible for additional planning products.

The safety performance targets that are shared with the MPO, provide data that is critical to ensuring consistency with state / regional planning processes.

Key Performance Indicators (KPI's) are used to gauge the effectiveness of DART safety objectives. Streetcar collisions per 10,000 miles operated are reported monthly and contribute to an annual not to exceed goal. Additional performance measures include derailments, rail violations, incidents and pedestrian collisions which are tracked and compared to previous month's events.

XI. DEVELOPMENT AND IMPLEMENTATION OF SMS

The President & Chief Executive Officer has delegated responsibility for implementing and maintaining the PTASP to DART's Vice President, CSO. The Vice President, CSO oversees the Safety Section, which monitors PTASP development, implementation and continuous improvement of the SMS. Safety is promoted through adherence to our Safety Management System (SMS) with its components of Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. Management across the agency is expected to adhere to the DART's SMS Framework and understand the components of our SMS, which is appropriately scaled to the size, scope, and complexity of the DART.

The City Streetcar Representative provides oversight of the PTASP implementation through attendance at Rail Safety Committee meetings, reviewing the annual safety audit, reviewing system alerts, reviewing accident reports and through ad hoc communication with DART

Safety Task Responsibility Matrix

The Safety Task Responsibility Matrix, which identifies the specific DART Departments and tasks to be completed to implement DART's SMS is provided in **Appendix VII.**

1.0 SAFETY MANAGEMENT POLICY

The City of Dallas, as the system owner, relies upon the technical expertise of DART to establish safe, reliable, and efficient policies and practices for operating and maintaining the Dallas Streetcar.

1.1 DART, President & Chief Executive Officer's Safety Management Policy Statement

DART was organized with the mission to provide a sustainable system of innovative, affordable, reliable and safe mobility options for our riders that enhances the quality of life and stimulates economic development. Accordingly, safety is a primary concern that affects all levels of DART activities including operations, maintenance, and administrative functions of the organization. All employees and contractors of DART are expected to conduct their duties safely, aimed at preventing, controlling and minimizing undesired events, such as customer or employee injury, equipment or property damage, or degradation to system safety in any DART function. Employees and customers are DART's most important assets, and their safety is DART's greatest responsibility.

This full policy statement has been reviewed and signed by the DART President & Chief Executive Officer and is included in **Appendix I**.

1.2 DART's Safety Principles

In line with DART's Safety Management Policy, DART has established the following Safety principles as a basis for implementing its Safety Management System (SMS):

- Injuries and occupational illness can be prevented.
- Preventing injuries and incidents is good business.
- Operating exposures can be safeguarded.
- Management will train all employees to work safely.
- Appropriate safety equipment will be available to all employees.
- Safety is the responsibility of every employee.

While it is in the best interest of the public for the City to delegate the responsibility for safety and operation to DART, accountability for system safety cannot be delegated and must remain with the City of Dallas.

City of Dallas, Streetcar Representative

The ILA between the City and DART establishes the role of Streetcar Representative in the following provision:

> *The City shall, by written notification to DART, designate an individual to act as its "City Streetcar Project Representative". The City Streetcar Project Representative shall be available to represent and act on behalf of the City within the limits describe in the written notification, and shall, to the limits agreed to by the Parties, be involved in the Project on a day-to-day basis. The City Streetcar Project Representative shall be kept informed by DART of major developments or issues associated with the Project that arise from time-to- time as the Project progresses.*

The Streetcar representative performs the following routine tasks:

- Participates in the monthly Rail Safety Committee meetings on issues that may affect the Streetcar.
- Participates in the DART Executive Roundtable Review Team Committee meetings on issues that may affect the streetcar.
- Coordinates with DART's AVP Streetcar/Systems on the overall performance of the Streetcar and on issues affecting the Streetcar budget and contracts.
- Coordinates with DART's Agency Safety & Compliance on the preparation of the PTASP, the Safety Audit, and annual system certifications.
- Makes recommendations to the City Manager regarding the approval of the PTASP, the Safety Audit, and annual system certifications.
- Reviews alerts and notices from DART on the operation of the Streetcar.
- Reports on serious or unusual incidents to the City's Director of Transportation as they occur.
- Provides ad hoc communication to the Director of Transportation or the Assistant City Manager on Streetcar issues as appropriate.

DART Management

As the operator of the Dallas Streetcar, DART performs and manages the routine functions to operate and maintain the Streetcar system. The Organizational Structure is designed to meet DART's current needs including the commitment to provide reliable and efficient service to the public and meet the Streetcar PTASP Goals and Objectives.

See DART Management Organization Chart in **Appendix II.**

DART, Board of Directors

DART is governed by a 15-member board appointed by service area city councils based on population. Eight members are appointed by the City of Dallas and seven are appointed by the remaining cities. Board members serve two-year terms with no limits. Board officers are elected from the board membership and serve one-year terms.

DART, President & Chief Executive Officer

The President & Chief Executive Officer administers the goals and policies of the DART Board of Directors and directs the daily operating and business affairs of DART.

DART, Vice President, Chief Safety Officer

The Vice President, Chief Safety Officer reports directly to the President & Chief Executive Officer and manages the operational safety program.

Assistant Vice President – Streetcar-Systems Engineering

The Assistant Vice President for Streetcar System Engineering reports directly to the VP Engineering & Technical Services.

1.3 Employee Safety Reporting Program

DART utilizes a reporting program for employees via email, phone contact or direct contact for issues that may affect their safety. Employees can direct their safety concerns to their supervisor or safety staff. Employees may remain anonymous by reporting safety concerns via the Anonymous reporting program. This system wide approach to hazard awareness can be utilized at DART facilities and is managed by the Safety Program Managers.

DART also utilizes the Hazard ID Workflow system to allow employees to submit a safety concern. When a hazard has been submitted for review and resolution, the following procedure is used to reduce or eliminate it. The employee inputs the Hazard into the *Hazard ID Workflow System*, which forwards it to the employee's manager. If the manager is unable to resolve the issue within 30 days, the Hazard ID is forwarded to Safety or to the appropriate safety committee. The safety committee responds to the Hazard ID and, if required, recommends a course of action.

If the Hazard is not resolved within 90 days, the Hazard ID will be forwarded to ERRTC for consideration and review. The ERRTC may review the hazard and initiate its own resolution. The ERRTC's decision is final.

1.3.1 Protections for Employees Who Report Safety Conditions

DART explicitly forbids any action(s) to be taken against any employee or contractor who discloses a safety concern through the safety reporting program, unless such disclosure indicates beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures. This policy can be found in the Administrative Employment Manual. Section 3.2.A and in the Hourly Employment Manual, Section 2.3.f.

It is the responsibility of each employee to report unsafe work conditions. Employees, who are uncomfortable reporting to their immediate supervisor/manager, may contact any member of DART's Executive Roundtable Review Team Committee or speak directly to the staff within the office of the Vice President, CSO who will contact Human Resources to open an Employee Labor Relations Inquiry. DART maintains a zero tolerance for retaliatory behavior towards any employee and for any reason; especially reporting safety concerns. The Vice President, CSO or his/her staff members will enter the safety concern into the Hazard ID Workflow system, interview the reporting employee and determine the best course of action to address the employee's concerns/reason(s) for electing to bypass his/her immediate supervisor; to include referring the employee to the Human Resources Department for follow-up.

1.3.2 Employee Behaviors Subject to Disciplinary Action(s)

Employees are subject to the provisions of DART Hourly Employment Manual, Administrative Employment Manual, Substance Abuse Policy and all DART regulations. Additional employee expectations are further detailed in the DART Light Rail Book of Operating Rules included in **Appendix V.** Some of the descriptions of employee behaviors that may result in disciplinary action are listed under Hourly Employment Manual Chapter 8, Administrative Employment Manual Chapter 9 and Administration of Corrective and Disciplinary Action (TOG-1002).

1.4 Safety Management Policy Communication

DART's Executive Leadership Team (ELT) are responsible for communicating to their subordinate staff the agency culture that fosters safe operational policies and practices. To effectively promote a positive safety culture, DART's safety management policy is regularly communicated by several methods. The communication of the Safety Management Policy will be conveyed with a top-down strategy beginning with DART's Executive Leadership Team and Agency Safety & Compliance.

The Safety policy is delivered to employees during the new hire orientation process, through agency wide safety campaigns as well as utilizing DART's intranet platform (InfoStation). to continually promote our safety policies and ensure that any modifications to safety policies are immediately available for all employees to review.

Additionally, our safety management policy is promoted through quarterly safety meetings, informal minute clinics that are held with our front-line employees, electronic bulletin boards, and Agency wide e-mail with the ability to target a specific employee group.

1.5 Authorities, Accountabilities, and Responsibilities for Safety Management and SMS Implementation

The City of Dallas Organizational Chart is included in **Appendix III**.

1.5.1 Accountable Executive

The City Manager is the Accountable Executive and relies upon the DART's President & Chief Executive Officer to administer the goals and policies approved by the DART Board of Directors and provide leadership for the management of safety performance targets within the organization. As such, the President & Chief Executive Officer is ultimately accountable for DART's SMS. This includes the effective use of resources for the mitigation of safety risk through collaboration with stakeholders and making safety influenced decisions.

1.5.2 Chief Safety Officer (CSO)

The Vice President of Agency Safety & Compliance serves as DART's CSO and reports to DART's President & Chief Executive Officer. The location of this position within the Agency's reporting structure emphasizes the critical importance of Safety to the organization. The CSO is authorized by the Accountable Executive to create, implement and administer an integrated and coordinated PTASP, to include the establishment of SMS for the purposes of identifying, preventing controlling and resolving unsafe conditions.

1.5.3 City of Dallas, City Manager

The City Manager is the Accountable Executive and is appointed by the elected City Council. The City Manager is also responsible for the daily operations of the municipal organization and manages a staff of approximately 14,000 employees with a budget of nearly 4.75 billion.

1.5.4 Agency Leadership and Executive Management (Key Staff)

Responsibilities of Agency Leadership and Executive Management are summarized in **Table 3** below.

Table 3: General Safety Responsibilities

DEPARTMENT	DESCRIPTION
Agency Safety & Compliance	▪ Develops and administers programs for safety audits and compliance; accident prevention; industrial safety, investigation, and documentation; operations monitoring; and coordination of state safety oversight activities for light rail applicable operations. ▪ Day to day implementation of DART's SMS ▪ Is empowered to: – Enter DART property on own authority at any time while performing duties. – Perform audits, field exercises, and inspections, both announced and unannounced. – Obtain data and evidential material upon request in the course of an investigation or other safety activity. – Stop work where continuation would endanger life, health or cause significant damage to property.
Senior Management Team	▪ Approves organizational safety policies. ▪ Establishes safety goals and objectives. ▪ Assigns safety responsibility and authority. ▪ Designs systems to measure safety performance. ▪ Participates on the DART Executive Roundtable Review Team Committee. ERRTC ▪ Day to day implementation of DART's SMS ▪ Holds managers accountable for achieving safety goals and objectives. ▪ Approves budgets and ensures adequate resources are available
Managers & Supervisors	▪ Establish appropriate budgets and allocate resources necessary to implement safety policies; monitor and enforce section compliance with safety standards and procedures. ▪ Conduct accident investigations. ▪ Participate in the hazard identification and resolution process. ▪ Participate in bus and rail safety committees. ▪ Day to day implementation of DART's SMS
DART Employees	▪ Follow established safety rules, procedures, policies, and work practices. ▪ Report unsafe conditions and behavior to immediate supervisor, Senior Management, or Safety Management. ▪ Contribute to the background information for the DART Hazard ID and to the workflow reporting system.

Table 4: Responsibilities of Operations Personnel

DEPARTMENT	SERVICE	DESCRIPTION
Transportation	Streetcar Services	▪ Training for Streetcar operators and supervisory employees ▪ Evaluation of routes, schedules, bus stops, shelters and facilities to determine the effectiveness and condition of service and amenities ▪ Assistance to customers at each transit center or transfer station and monitoring of the centers' maintenance and security
	System Monitoring	▪ Operators' service and performance • Two-way radio communication
Maintenance	System Support	▪ Technical training for maintenance employees ▪ Technical information related to vehicles, equipment and facilities ▪ Preventive maintenance inspections (PMI) and repairs ▪ Specifications, procedures and requirements for the purchase, maintenance and improvement of vehicles, equipment and facilities ▪ Management of contracts for grounds keeping and janitorial services
	System Maintenance	▪ Repair and maintenance of operating facilities and equipment, Streetcar track, right-of-way and bridges ▪ DART electronics, radio and communications equipment for rail operations, and DART police (non-revenue vehicles, electronic equipment, and facility) ▪ Tests, inspections and maintenance of Streetcar system and equipment ▪ Maintenance of system-wide passenger amenities, including Streetcar stations, shelters and benches.
	System Monitoring	▪ Analysis of wear, metal and fluid contamination ▪ Corrosion-control test stations and emergency repairs ▪ Consumable goods and services for contractual compliance to technical specifications and quality

1.5.5 DART Executive Roundtable Review Team Committee

The PTASP implementation and operation, including support of SMS functions, is carried out through the DART Rail Safety Committee – Joint Labor Management (RSC-JLM) and DART Executive Roundtable Review Team Committee (ERRTC). The RSC-JLM is composed primarily of DART Vice President level personnel that have direct responsibilities for the daily operations of the light rail system. These leaders possess a high level of rail knowledge and expertise which strengthens their abilities to effectively mitigate hazards. The Director of Agency Safety & Compliance monitors the internal hazard database and assigns directly conveyed hazards to Agency Safety & Compliance staff. The Director additionally tracks the remaining hazards to determine if resolution can be achieved on the departmental level or if the RSC-JLM involvement is warranted.

The DART RSC-JLM meets monthly to review newly identified hazards, analyze safety-related reports, recommend mitigations to previously identified hazards and to make safety-related decisions in accordance with their authority. The Director of Agency Safety & Compliance chairs the Committee. The charter of the RSC-JLM identifies the following representatives by function:

Director of Agency Safety & Compliance, Chair	Division Safety Rep (3)
Safety Program Managers (3)	Frontline Rail Union Representative
VP Rail Operations	Frontline TES, Track, Signal, Comms Union Representative (4)
AVP Rail Operations	Frontline Fleet Services Union Representative
AVP Ways Structures and Amenities	Frontline Engineering Specialist Union Representative
AVP Fleet Services	Frontline Police Union Representative (UTP of Dallas Lodge80)
VP Engineering	Frontline Capital Union Representative
Police Major	Frontline Materials Management Technician Union Representative
AVP, Program Support	AVP Streetcar-Systems Engineering
Sr. AVP Materials Management	AVP Rail Operations
City of Dallas Streetcar Representative	

The role of the Director of Agency Safety & Compliance includes:

- Chair the RSC-JLM meetings.
- Initiate the review and update process.
- Review the findings and responses from internal and external audits and forwards to ERRTC;
- Ensure that revisions to the PTASP are completed and retains copy of revised document.
- Ensure most recent version of PTASP is present on DART Intranet.
- Ensure that RSC-JLM meeting minutes are developed for each meeting.

If the Director of Agency Safety & Compliance deems a hazard to have immediate and detrimental negative consequences via the assessment performed in conjunction with the MIL-STD-882E matrix, an emergency session of the RSC-JLM will be instituted. All hazards that have emerged to the level of Acceptable with ERRTC review trigger immediate committee level attention. Once an RSC-JLM session convenes the members are briefed on the hazard and the hazard is re-assessed for validity. RSC-JLM general agreements involve actions to mitigate hazards and are documented in the workflow system. Hazards that require policy modifications or expenditures that rise to capital expenditure level are forwarded to the DART Executive Roundtable Review Team Committee level for mitigation.

The DART Executive Roundtable Review Team Committee is briefed by the Director of Agency Safety & Compliance providing insight on all hazards aged beyond ninety days or that may require executive level mitigation efforts.

If hazard resolution requires an immediate mitigation due to an undesirable risk assessment, then an emergency session of the ERRTC is also convened. The purpose of this elevation is to allow for succinct, informed decisions at the agency's senior executive level where immediate decisions of policy and resource allocations are ratified.

The ERRTC meets monthly or more frequently if deemed necessary by the DART Vice President, CSO. The ERRTC holds the final decision-making approval within the Hazard Management process. Hazards presented at this level potentially could lead to system modifications, large expenditures or operating rules changes. In some instances, the ERRTC could decide the likeliness of occurrence is minimal or given the circumstance the risk is acceptable to the agency. The ERRTC encompasses the following Executive Personnel:

- VP Chief Safety Officer, Chair
- AVP Agency Safety & Compliance
- Director Agency Safety & Compliance
- EVP Chief Operations Officer (COO)
- EVP Chief Administrative Officer (COA)
- EVP Chief Financial Officer (CFO)
- EVP Chief Development Officer
- Ad-hoc Member: City of Dallas Representative (as needed)

The role of the Vice President, CSO includes:

- Chairs the ERRTC meetings.
- Schedules committee meetings, prepares agendas, requests assistance from non- members, and distributes ERRTC reports.
- Maintains documentation of ERRTC proceedings, including system modifications reviewed by the ERRTC.
- Provides administrative, coordination, and analysis support for ERRTC activities.
- Reviews monthly reports from ERRTC members to ensure required system safety activities are carried out, and issues reports.
- Sends the proceedings of the ERRTC, which include the minutes from the RSC-JLM and BSC meetings, to TxDOT officials.
- Documents system changes and required actions when ERRTC reaches consensus.
- Tracks changes needing unbudgeted funding and ensures funding is obtained.
- Requests referral to the ELT for changes that cannot be resolved by consensus of the ERRTC.

2.0 SAFETY RISK MANAGEMENT (SRM)

DART's Hazard Management Program is currently overseen by two (2) distinct divisions within the organization. All safety aspects related to revenue service operations, maintenance, and public safety are managed by DART Agency Safety & Compliance. All safety aspects related to capital projects, new starts, and service expansions are managed by the Development Program Support Division of the Development Department (until the infrastructure is turned over to operations).

The Safety & Security Certification Plan (SSCP) includes a Hazard and Vulnerability Management Program that details the steps to mitigation of hazards identified via individuals or systems. The program categories, assesses, ranks, administers, resolves, closes and tracks identified hazards generally discovered during the design process, however this procedure remains valid throughout construction. The Typical Hazard Analysis Worksheet and Typical Hazard Tracking Matrix are tools that document these identified hazards.

The Systems Safety and Security Program (SSSP) addresses Hazard Identification in design review and establishes the team that tracks and maintains via the Hazard Resolution Matrix flowchart. This flowchart was developed from the examples in the FTA Guidelines for Hazard Management and highlights the flow and control of information.

Following annual review and approval of the City of Dallas Streetcar PTASP by the DART President & Chief Executive Officer, Vice President-Chief Safety Officer, City Council, DART Rail Safety Committee- Joint Labor Management and TxDOT SSOA, DART senior leadership will continue PTASP implementation.

The City of Dallas Streetcar PTASP is intended to support the Hazard Management Process (HMP) by outlining the process for hazard identification, review and mitigation. The HMP is structured to adhere to the requirements of the TxDOT SSO Program Standard. In addition, the appropriate safety committee will investigate, led by Agency Safety & Compliance. At conclusion, the final investigation report will be provided to TxDOT SSO for review and comment. Any corrective action plans developed because of the investigation will be reviewed by TxDOT SSO, which retains the authority to request a status briefing on any unacceptable hazardous condition investigation. TxDOT, at its discretion, may choose to conduct an independent investigation of any event meeting the thresholds specified in Program Standard. TxDOT will notify DART as to the personnel who will be conducting the independent investigation and provide a preliminary schedule as to the investigation process. The TxDOT investigation report will be submitted to DART within 45 days of the completion of the investigation. If the DART disagrees with TxDOT's investigation, then the DART may submit a written dissent from the report, which TxDOT will

include in the final investigation report, The DART must submit their dissent via email to their SSO Program Manager within 15 days of TxDOT's completion of the investigation report.

Hazard management is a process to discover, mitigate, and control conditions that, if not altered, have the potential to cause accidents, injuries or other losses. Sources for identifying hazards include:

- ***FTA***
- ***TxDOT***
- ***Reports from passengers*** – DART Customer Service receives reports from passengers and documents their concerns.
- ***Reports from operators and other field personnel*** – Operator reports are submitted through the accident reporting portal on DART InfoStation. These reports can be tracked via the workflow process, OCC Log, related supervisor report and the Risk Management Information System (RMIS) system
- ***Reports from maintenance personnel*** - Maintenance reports are submitted through the accident reporting portal on DART InfoStation. These reports can be tracked via the workflow process, OCC Log, related supervisor report and the RMIS system. In addition, maintenance also uses MAXIMO/SPEARS database to report damage, labor and to track any form of repair costs
- ***Investigations and review of accidents/incidents*** – Reports from accidents and incidents are tracked through the OCC Log, SSO Tracker and RMIS
- ***Accident statistics and risk-management information*** – Accident information is captured in the RMIS database, downloaded by DART IT and provided for review. This data is then reviewed by operating division, type and preventability. Reports are developed and used to compare to previous months and years.
- ***Hazard Identification System data regarding safety-related items*** – The DART hazard ID process allows employees to submit any potential safety issues or hazards into the workflow. In addition to beginning the workflow for hazard analysis, the system also maintains a history of employee reports and details of those reports.
- ***Internal Audits*** – Results of Internal Audits are submitted by Agency Safety & Compliance
- ***Safety data obtained from external sources*** – When DART receives a communication from an external source, the format is retrieved via email in pdf or word document format and is stored in the Agency Safety & Compliance Department. Items submitted are managed and stored via the DART organization Record Management filing system.

Hazards identified by internal sources will be input by the reporting employee or their direct Supervisor/Manager. Hazards identified by external sources or employees that wish to remain anonymous will be input by Chief Safety Officer or Safety Program Manager.

2.1. SRM Activities:

The process of identifying and resolving hazards in the system is based on the U.S. Military Standard MIL-STD-882E and involves:

1. Hazard Identification
2. Hazard Risk Assessment
3. Hazard Risk Mitigation
4. Follow-up on Risk Mitigation effectiveness to include necessary Corrective Action Plans (CAPs) (see **Appendix IX**)

2.1.1. Hazard Identification

DART uses a hazard identification workflow system that reflects the consolidation of information in the Hazard Management Process (HMP). This workflow system, which also serves as a hazard tracking system, is maintained by the Director of Agency Safety & Compliance. The hazard identification workflow system contains all hazards identified through the various methods applied and is available for all employees review through DART's intranet (InfoStation). Monthly Safety Committee minutes are submitted to TxDOT SSO upon request. The City will provide oversight of Hazard Management Review by participating in the RSC-JLM and ERRTC and by routinely reviewing the Hazard ID Workflow close out data.

In addition, DART conducts meetings with TxDOT SSO upon request and maintains electronic contact on a regular basis. During application of the HMP, for any hazard identified as an "unacceptable hazardous condition", the safety section notifies the TxDOT SSO designated point-of-contact within 24 hours using the SSO Tracker System. The appropriate safety committee, led by the Agency Safety & Compliance, investigates each hazard and forwards each finding to TxDOT SSO for review and comment at the end of the investigation via the SSO Tracker System. Any CAPs developed because of the investigation are forwarded for SSO approval via the SSO Tracker System. Once TxDOT SSO approves the RTA's CAP request, mitigation begins. TxDOT SSO retains the authority to request a status briefing on any unacceptable hazardous condition investigation.

The following procedure is used to reduce or eliminate a hazard when has been submitted for review and resolution. All employees have the ability to input a hazard ID into the Hazard Workflow system, which forwards it to the employee's manager. If the manager is unable to resolve the issue, he can request mitigation discussion of the hazard at the next scheduled Safety Committee meeting which is held monthly. The RSC-JLM responds to the Hazard ID and, if required, recommends a course of action. The RSC-JLM must address each open Hazard ID every month until a resolution is reached.

If the Hazard is not resolved within 90 days, the Hazard ID will be escalated to ERRTC for consideration. The ERRTC may review the hazard and initiate its own resolution. The ERRTC's decision is final.

The SRM process requires understanding the differences between hazards, events and potential consequences. The SRM definitions checklist presented in **Figure 1** helps support the DART Executive Roundtable Review Team committee's understanding of these terms when considering safety concerns.

Figure 1: SRM Definitions Checklist

What is it? If you can select all 3 in one box, it's ……	**A Potential Consequence** ☐ Not a real or potential condition ☐ Can be caused by a hazard ☐ Hasn't happened yet but could be similar to a past event
A Hazard ☐ Real or potential condition ☐ Can cause a consequence ☐ Not an event	**An Event** ☐ Accident, incident or occurrence ☐ Not a real or potential condition ☐ Has already occurred

2.1.2. Hazard Risk Assessment

Hazard risk assessment determines if the risk of a hazard is acceptable and whether corrective action is warranted.

If the Director of Agency Safety & Compliance deems a hazard to have immediate and detrimental negative consequences, via the assessment performed in conjunction the MIL-STD-882E matrix, an emergency session of the RSC-JLM will be instituted. All hazards that have risen to the level of undesirable trigger immediate committee level attention. Once an RSC-JLM session convenes the members are briefed on the hazard and the hazard is re-assessed for validity. RSC-JLM general agreements precure actions to mitigate hazards and are documented in the workflow system. Hazards that require policy modifications or expenditures that rise to capital expenditure level are forwarded to the DART Executive Roundtable Review Team Committee level for mitigation.

The DART Executive Roundtable Review Team Committee is briefed by the Director of Agency Safety & Compliance providing insight on all hazards aged beyond ninety days or that may require-executive level mitigation efforts.

If hazard resolution requires an immediate mitigation due to an undesirable risk assessment, then an emergency session of the ERRTC is also convened. The purpose of this elevation is to allow for succinct, informed decisions at the agency's senior executive level where immediate decisions of policy and resource allocations are ratified.

Hazard Severity is a measurement of the worst credible outcome that can result from human error, environmental conditions, design inadequacies, subsystem or component failure, or malfunction and procedural deficiencies. Within 24 hours of Hazard submittal, the Safety Program Manager completes an initial Hazard Analysis. For hazards that are identified during non- business days, an initial hazard rating will be done within 24 hours beginning the next business day. The Safety Program Manager will assign one of four severity categories The severity categories are included in **Table 5** below.

Table 5: Hazard Severity Table

Category	Description	Description
1	Catastrophic	Death, system loss, or severe environmental damage.
2	Critical	Severe injury, severe occupational illness, major system or environmental damage.
3	Marginal	Minor injury, minor occupational illness, or minor system or environmental damage.
4	Negligible	Less than minor injury, occupational illness, or less than minor system or environmental damage.

Hazard Probability is derived from research, analysis, and evaluation of safety data. The probability categories are included in **Table 6** below:

Table 6: Hazard Probability Table

Level	Description	Specific Individual Item	Fleet or Inventory
A	Frequent	Likely to occur frequently.	Continuously experienced
B	Probable	Likely to occur several times in the life of an item.	Will occur frequently
C	Occasional	Likely to occur sometime in the life of an item.	Will occur several times
D	Remote	Unlikely but possible to occur in the life of an item.	Unlikely but can reasonably be expected to occur
E	Improbable	So unlikely, it can be assumed occurrence may not be experienced	Unlikely to occur, but possible

After assessing the severity and probability of a hazard and the corresponding potential consequences, the Safety Program Manager assigns a **Hazard Risk Index** (HRI) rating, included in **Table 7** below, and prioritizes hazards based on safety risk:

Table 7: Hazard Risk Index Matrix

Frequency		Severity			
		1 Catastrophic	2 Critical	3 Marginal	4 Negligible
A	Frequent	1/A	2/A	3/A	4/A
B	Probable	1/B	2/B	3/B	4/B
C	Occasional	1/C	2/C	3/C	4/C
D	Remote	1/D	2/D	3/D	4/D
E	Improbable	1/E	2/E	3/E	4/E

Based on the completion of the analysis and classification of the Hazard Risk Index, DART utilizes the **Hazard Resolution**, in **Table 8** to assist with identification of acceptance criteria:

Table 8: Hazard Resolution Table

Severity/Frequency	Resolution
1/A, 1/B, 1/C, 2/A, 2/B, 3/A	Unacceptable
1/D, 2/C, 2/D, 3/B, 3/C	Acceptable with ERRTC review
1/E, 2/E, 3/D, 3/E, 4/A, 4/B	Acceptable with RSC-JLM review.
4/C, 4/D, 4/E	Acceptable without review.

Safety critical hazards that have been identified must be controlled or eliminated so that the hazard does not continue to pose a danger. The controls may be done in a temporary manner until a long-term mitigation has been implemented. Dependent on the risk ranking of the hazards' likelihood and severity, a multi-departmental team may be established to analyze and control these risks/hazards. The teams will be comprised of the following personnel:

- Subject matter experts (SMEs) for the system
- Front-line personnel and supervisors
- All levels of labor
- SSO Agency participation is encouraged
- Safety staff, as support.

2.1.3. Hazard Risk Mitigation

Hazard Risk Mitigation starts with the employee's immediate Supervisor/Manager who then collaborates with the appropriate department(s) to determine what steps are needed to eliminate or mitigate the hazard to an acceptable level. Once the hazard is resolved, Agency Safety & Compliance reevaluate the risk utilizing MILSTD 882E to determine if the level of the risk has been reduced to an acceptable level. Prior to closure of the Hazard ID, a summary documenting and tracking the steps that led to the risk reduction is added to the workflow.

If the elimination/mitigation cannot be handled by the employee's immediate supervisor/Manager, the supervisor/Manager will collaborate with the appropriate personnel required to mitigate the hazard *i.e., Agency Safety & Compliance, Subject Matter Experts (SME), Departmental Leaders etc.* to determine a required course of action. In the event the elimination/mitigation of the hazard cannot be resolved, Agency Safety & Compliance (Safety Program Manager) will escalate the Hazard to RSC-JLM who then assesses the hazard and determines the appropriate course of action.

It is important to note, however, that a combination of several or all of the following may be used, depending on the nature and extent of the hazard:

- Design for minimum risk
- Incorporate the use of safety devices
- Provide warning devices
- Implement special safety procedures and conduct training

Designing for Minimum Risk attempts to eliminate hazards during the design process. If an identified hazard cannot be eliminated, its associated risk will be reduced to an acceptable level through design selection. This may be constrained by time, money, manpower, or other limitations. If the hazard cannot be eliminated or its risk controlled to an acceptable level through design, Safety Devices will be used to reduce risk to an acceptable level.

If neither design nor safety features or devices can reduce the risk to an acceptable level, Warning Devices are used to detect the condition and to produce a warning signal to alert individuals to the hazard. Warning signals and their operation shall be designed to minimize the probability of individuals reacting incorrectly to the signals and shall be standardized and familiar.

Lastly, if the hazard cannot be eliminated or its associated risk adequately controlled through design, safety features/devices such as personal protective equipment (PPE) or warning devices, approved procedures and training must be implemented and used to reduce the risk.

2.2. TxDOT SSO Reporting Requirements

TxDOT will review and evaluate each PTASP for compliance with 49 CFR Part 673, the TxDOT Program Standard, and the National Public Transportation Safety Plan. At the time the PTASP is submitted for initial approval and for subsequent updates, DART may be required to submit referenced materials and supporting procedures to document each required element is addressed. Examples of referenced materials and supporting procedures include but are not limited to: standard operating procedures; training plans; rule books and bulletins; hazard management plans; maintenance rules and procedures; emergency response plans and agreements; and compliance programs. On-site meetings and teleconferences may be conducted to address issues identified during the review of the PTASP. The PTASP and supporting procedures shall be submitted by email or via a method specified by TxDOT.

PTASP Review Sequence and Approval

- TxDOT will acknowledge receipt of a PTASP submission within 10 days.
- TxDOT will complete the PTASP review and provide review comments, including areas requiring revisions, to DART within 30 days of PTASP receipt.
- TxDOT and DART will reach a mutually agreeable date for the resubmission of PTASPs that require revisions. Upon receipt of requested revisions, the process will continue.
- Upon approval, TxDOT will send an approval letter via email to the Accountable Executive and the Chief Safety Officer.

Annual PTASP Review

No later than September 1st each year, DART shall conduct a review of its PTASP and notify TxDOT via email if the PTASP is current or requires an update. If DART determines that PTASP must be updated, the notification shall summarize the areas requiring an update and the anticipated date the revised PTASP will be submitted to TxDOT. The revised PTASP must be approved by DART no later than December 31st and submitted to TxDOT no later than January 31st.

3.0. SAFETY ASSURANCE

Safety Component 3 of the PTASP outlines the Safety Assurance (SA) processes used by DART to implement, review and quantify the organization's adherence to applicable rules, regulations and standards. These SA processes provide DART and its executive leadership with a means of assessing if DART is meeting its safety objectives and performance goals. As part of the annual review of the PTASP, DART assesses the effectiveness of its safety risk controls, Management of Change, and the continual improvement of DART's SMS. Results of this annual review are used to update the DART PTASP Section *V. Safety Goals and Objectives;* as needed.

3.1. Safety Performance Monitoring / Safety Data Acquisition and Analysis

DART's Agency Safety & Compliance staff is responsible for obtaining the data required to identify, assess, mitigate and follow-up on safety related issues from the following sources:

- Hazard Identification System – All Employees
- Daily Operation Logs – Rail Transportation
- Maintenance Department Documentation – Maintenance
- Field Supervisor Reports – Transportation and Maintenance
- Safety KPI Reports – Agency Safety & Compliance
- Workers Compensation Data – Risk Management Division
- Police Reports – Transit Police
- Customer Service complaints and safety-related suggestions – Customer Service
- Internal Audits – Audit Department/ Annual Internal Safety Review
- Information and data received from FTA, TxDOT SSOA, and other oversight authorities
- DART Board of Directors – President & Chief Executive Officer, Deputy Director, Office of Board Support
- Dallas Streetcar Representative – (May also receive suggestions or complaints from citizens, City management, or City Council members)

Safety accepts data in multiple formats comprising information from audits, word of mouth, email, Hazard IDs, accident and incident reports, letters and customer concerns.

For every accident and incident, DART collects data and enters it into the (RMIS) database managed by the Risk Management Department. DART's IT Department has full access to the server. The DART IT Department downloads the data in a spreadsheet format and sends it to the Safety & Data Compliance Section for further Analysis. Depending on the output requested, this section analyzes data daily, weekly or monthly highlighting trends and extracting meaningful data for internal and external clients.

The Sr. Business Analyst assigned to Safety & Data Compliance section validates data for relevance and check each record if it has been classified for preventability and severity. If the record is not complete, the Business Analyst communicates with appropriate personnel and makes sure the data is complete. Once the data is complete and accurate, the Sr. Business Analyst prepares multiple reports for internal and external agency use. The summary of reports are as follows:

- Detail of Accidents and Incidents are compiled monthly by accident type and tabulated and categorized on the preventability of an event. Each report is distributed for the monthly DART Executive Roundtable Review Team Committee Meeting and quarterly for Division Level Measurement reports. The reports include information on accidents per 10,000 miles in comparison to the previous year's data and with the not-to-exceed goal.
- Summary of Accidents and Incidents by Type and, Preventability for Key Performance Indicators (KPI). This report is prepared weekly, monthly or/and upon request.
- Reporting of relevant data to the National Transit Database (NTD) based on the requirements outlined by the NTD Safety and Security Reporting Guide. This report is generated by the Safety & Data Compliance Section monthly for NTD reporting and one annual report is created each January and that must be certified by the CEO
- Monthly reporting of shared corridor Accident and Incident data to the Federal Railroad Administration (FRA) based on FRA reporting guidelines.
- Monthly Executive Summary Report of Accidents and Incidents for Senior Management Review.
- Reports are forwarded to each Safety Program Manager who will coordinate with Division level personnel to develop strategies to address unfavorable trends or deficiencies. If the trend or deficiency, cannot be addressed at the site level a hazard ID could be initiated for further tracking and trending purposes.

Internal Reports are distributed both electronically and as hard copies to the Leadership Roundtable, ERRTC and the Finance Department. External Reports, such as those made to the NTD website, are submitted through the website or electronically based on the external organizations' reporting guidelines.

3.1.1. Corrective Action Plans (CAP)

DART Agency Safety & Compliance is responsible for maintaining and tracking the corrective actions and subsequent statuses that are identified from hazard identification, accidents, incidents or internal and external review findings. A Corrective Action Plan (CAP) Log is used by DART to compile and track this information. DART is currently utilizing a commercial database software package as the means for documentation of the CAP log. Details regarding DART's CAP program can be found in **Appendix IX.**

3.1.2. Facilities and Equipment Inspection

MOW Director or their designee assign inspections to personnel based on the Facilities Preventive Maintenance Manual. The Rail Maintenance Director or their designee assigns inspections to personnel based on Streetcar Preventative Maintenance Manual. Facilities, systems, rolling stock and equipment all have different intervals to which inspections and preventive procedures must occur. The purpose of the PMI Manual is to provide personnel with information necessary to perform each PMI.

While performing the PMI inspection, personnel document deficiencies that require repair, adjustment, or that warrant replacement. Work orders that are contained in the MAXIMO/ SPEAR asset management program capture each assignment resulting from an inspection. It is the responsibility of the shop manager and or shift supervisor to schedule repairs of the defects found during the PMI as well as log any safety concerns/hazards identified in the course of the PMI inspection process within the MAXIMO/SPEAR asset management program. The MOW Director or their designee are to document compliance with local, state and federal regulations.

3.1.2.1. Regular Inspection and Testing

Various Inspections are conducted according to pre-determined schedules as shown in **Appendix X**, and repairs are completed as conditions require. Procedures to be used are outlined in the PMI Manuals and within published Work Instructions, Standard Campaign Bulletins, Standard Practice Bulletins and Standard Operating Procedures. Inspection results are documented and entered into a work order in the Maintenance Management System (MAXIMO/SPEAR).

For Hazards detected during regular inspection and testing a workflow will be initiated via the internal hazard reporting system. The hazard will be reviewed and tracked by Agency Safety & Compliance and assigned to the appropriate committee for identification, analysis, and mitigation solutions. Applying these procedures increases the probability of eliminating or reducing hazards while documenting their existence for tracking purposes. The inspection guides indicate the steps to be performed to complete proper preventive maintenance inspections of DART-owned facilities or assets.

Example Inspection Information

Inspection Intervals	*Standard Practice Bulletins / Work Instructions*
Monthly; Quarterly, and Annually	Work instructions and or Standard Practice Bulletins (SPB) shall be used to supplement or supersede information in this manual on an interim basis. As this manual is revised, information affecting preventive maintenance inspections will be incorporated and the SPB will become obsolete

3.1.2.2. Checklists

Checklists for specific inspection reports reside in the Maintenance Department and can be accessed electronically. The MAXIMO/SPEAR Computer Program tracks and manages inventory, training records, preventive maintenance, running repair, and other activities pertinent to Maintenance.

3.1.2.3. Coordination with Hazard Management

If replacement or repair of a facility or equipment does not mitigate the hazard, the Hazard Management process, as prescribed by DART's SRM requirements must be implemented (See *SMS Component 2*).

3.1.3. Maintenance Audits and Inspection

An effective and efficient maintenance program helps to reduce risk to the overall DART system, including employees, passengers, emergency responders, and the general public. The DART maintenance program also helps to ensure that safe and reliable public transportation is provided while reducing the need for updates or equipment replacement, which may require additional funding.

Vehicle Maintenance and Inspection Program

All DART Streetcar Operators have a responsibility to perform a ***Pre-Trip Inspection*** of their vehicle prior to entering service. Any issues that are noted by the Streetcar Operator are required to be communicated to the Yard Control Supervisor and reported to maintenance. If a condition is noted that the Operator feels would make the Streetcar unsafe for service, the condition must be reported to the control center. This frequency of inspections allows for abnormal conditions to be identified early on before they become catastrophic.

The DART Streetcar Maintenance Program for ***Regular Inspection and Testing*** is based on inspections that conform to the manufacturers' guidelines. DART Streetcar are inspected based on time intervals. Monthly, 3 Months, 6 Months, and 1 year. Additional inspections and change out of components are scheduled on a multiyear basis.

The items scheduled for change-out at that time will be done on a work order basis. Each inspection cycle has a separate inspection manual defining the mileage points at which inspections are to be completed. In addition to regular maintenance and repair, some components are programmed for change-out on a multi-year schedule.

Inspection results are documented and entered into a work order in the Maintenance Management System (MAXIMO/SPEAR) where the required repairs, including materials and labor, are captured. Noted defects are resolved at the time of discovery or upon completion of the inspection. If a safety defect is noted, the system will be locked out/tagged out as needed until the repairs are complete. Hazards detected without immediate resolution create a workflow through the internal hazard reporting system which is sent to Agency Safety & Compliance and to appropriate committees for identification, analysis, and mitigation. These procedures increase the probability of eliminating hazards while documenting their existence for tracking purposes. Section 2 of this PTASP details DART's SRM requirements. The Dallas Streetcar Vehicle and Maintenance Matrix is found in **Appendix XI.**

3.1.4. Procurement

DART's Procurement Department is responsible for obtaining the goods and services required to build and operate a safe and effective transit system. Procurement is guided by policies and procedures created to ensure uniformity in the procurement process. In many cases, accidents and hazardous conditions may be avoided during the procurement process. Selection of qualified contractors and suppliers, and careful inspection of delivered equipment and materials leads to early discovery of defective conditions, safety concerns and the elimination of resulting hazards. The procurement process is therefore administered to enhance system safety and to minimize Agency risk. The duties of the Procurement Department include:

- Enforcing DART's Acquisition Regulations, which specify the steps required to obtain goods and services in a safe and responsible manner.
- Adhering to environmental compliance requirements relating to hazardous substance acquisition, handling, labeling, storage, disposal and record keeping. All chemicals and hazardous materials on DART property should have a current Safety Data Sheet (SDS) and be approved by Safety.
- Collaborating with applicable officials to ensure contractors meet contractual obligations and follow established procedures related to the safety of DART employees, property and the public.
- Ensuring that any procurement requests for equipment or materials for use on DART property are reviewed and approved by DART's Agency Safety & Compliance prior to purchase. If Agency Safety & Compliance doesn't approve the request, for safety reasons, then it will require the Procurement Team to re-evaluate and look for other product/service that meet or exceed DART's requirement and minimize the potential hazards.

DART Procurement works to ensure that equipment and materials are safe for use by employees and patrons. Prior to purchase, DART must have assurance that the equipment or materials is compliant with applicable codes and standards and do not create catastrophic or critical hazards that could be detrimental to DART operations.

As part of the Implementation Phase for SMS, DART Agency Safety & Compliance will work with Procurement to develop detailed processes and procedures for review of any equipment or material.

3.2. Accident / Incident Notification, Investigation and Reporting

DART Streetcar collisions are reported through DART's internal agency website using the "Safety Tab and Accident Reporting Process" menu option. Accident file numbers are assigned by Risk Management and data is entered into the RMIS database. Reports, videos, photos and downloads specific to each collision will be uploaded and preserved via this database.

Collisions involving DART's Streetcar operations initiate the Train Control Center (TCC) to contact a pre-determined set of internal agency groups that will respond to the event. These groups include Fleet Services, Signals, Track Electrification Services (TES), Tracks, Media services, Transit Police who contact EMS, Agency Safety & Compliance, and Transportation Field Services.

3.2.1. Accident / Incident Procedures

DART utilizes a multi-departmental / discipline approach to accident investigations with the Transit Police serving in the lead investigative role with assistance from Transportation Field Operations and Agency Safety & Compliance. Transit Police investigation procedures can be found in DART's General Order Number 7.61, provided in **Appendix XII**. The DART Transit Police report summarizes the investigation, presenting facts related to the accident, and opinions and observations of the investigating officer. Departmental investigation procedures are included in **Table 9** below:

Table 9: Department Investigation Procedures

	Procedure Number	Procedure Title
Maintenance	NPA-0016	Post-Accident Vehicle/System Impound/Quarantine Investigation Procedure
	NPA-0029	Accident/Incident Investigation and Reporting
Transportation	104.02	Accident/Incident Investigation
	104.05	On-Scene Coordinator
	101.09	Common Corridor
		Emergencies
Agency Safety & Compliance	NPS-3329	Rail Accident Investigation
Copies of the above referenced procedures are located in **Appendix XII.**		

If necessary, Agency Safety & Compliance may conduct an additional investigation to ascertain the circumstances surrounding an accident. The primary focus of Agency Safety & Compliance investigation is to determine the cause in order to prevent reoccurrence. This additional investigation combines data from several sources including Police reports, Operator and Field Supervisor statements, and Streetcar downloads and video footage, and assembles the accident file into one centralized location. Information from all sources allows Agency Safety & Compliance to determine and validate their own conclusions as to the preventability or non-preventable nature of the event based on the entire composition of the file. The Agency Safety & Compliance investigation identifies cause(s) and recommended corrective actions to eliminate identified hazards and deficiencies. These events are entered into the SSO Tracker to record events that could potentially reoccur and cause unintended consequences.

Based on the complexity of the accident or incident, an extended final report may be written and submitted to the appropriate safety committee and department head for review and concurrence. The results of investigations, coupled with the supporting documentation, are also used by DART to fulfill the Safety Data and Acquisition element of SMS (see PTASP section 3.1.1).

DART's ***Internal Notification Procedure*** for accidents and incidents is carried out through the ReadyOps text message system. Text message notification levels increase with the severity of the event. If a critical responder does not acknowledge notification, supplemental notifications by phone are initiated at the discretion of Dispatch or Train Control.

The COD Streetcar Representative is included in the internal notification and may notify the Director of Transportation and City Management on serious incidents.

Table 10: Readyops® Notification Groups

	Groupings	*Type of Notifications*
Readyops Groupings	Red Signal	Red signal violations
	Senior Management	To be sent out if any Operators or Supervisors are transported to a medical facility.
	Train 1	Service interruptions of 10 minutes or greater or any delay exceeding 3 minutes in the tunnel.
	Train 2	Any incident resulting in passenger delays of 10 minutes or more and requires a response from "System Personnel" (TES, Track, Signals).
	Train 3	Any and all accidents and incidents resulting in passenger delays in excess of 30 minutes, or which result in damage, personal injury, or could attract media attention. Any code yellow regardless of severity unless serious injuries occur. Passenger(s) stuck in elevator/inclinator.
	Train 4	Any incident/accident causing major property damage, severe personal injury, results in the shutdown of rail services, or at the discretion of the Vice President of Transportation.

The Train Control Center (TCC) shall notify government entities of Streetcar accidents and incidents meeting reporting thresholds mandated by the TxDOT Program Standard. TCC will notify Agency Safety & Compliance, SSOA and FTA via the State mandated reporting platform. SSOA reporting tool. TCC notifies Agency Safety & Compliance via landline to verify if each event is FTA reportable. In the event that the accident meets the FTA accident reporting threshold, the Director of Agency Safety & Compliance will forward the report to the FTA within 2 hours. The National Transportation Safety Board (NTSB) is notified within two (2) hours of:

- A passenger or employee fatality
- Two or more injuries to employees or passengers requiring admission to a hospital
- Evacuation on the mainline.
- Fatality at a rail crossing
- Substantial Damage meeting the FTA/SSO reporting threshold, as defined by the National Transit Database (NTD) criteria.

NTSB is also notified within four (4) hours when damage to a passenger train or railroad or non-railroad property is $25,000 or more.

Federal Railroad Administration (FRA) notification is required via the Train Control Center (TCC) when a shared corridor emergency event highlighted in SOP publication *101.09 Common Corridor Emergencies* occurs. All LRT collisions with pedestrians in a shared corridor are reportable to the FRA within 30 days of occurrence. This notification is provided by Agency Safety & Compliance.

Table 11: Notification and Reporting of Accidents, Incidents, and Occurrences

Accidents	
DART notifies the TxDOT SSOA Program Manager and FTA within two hours if:	
Human Factors: a. Fatality (occurring at the scene or within 30 days following the accident) b. One or more persons suffering serious injury (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 burns, or any burns affecting more than 5 percent of the body surface.) c. A personal injury that is not a serious injury d. One of more injuries requiring medical transportation away from the event.	**Property Damage:** Property damage resulting from a collision involving a rail transit vehicle; or any derailment of a rail transit vehicle

Types of events (examples):

- A collision between a rail transit vehicle and another rail transit vehicle
- A collision at a grade crossing resulting in serious injury or fatality
- A collision with a person resulting in serious injury or fatality
- A collision with an object resulting in serious injury or fatality
- A runaway train.
- Evacuation due to life safety reasons.
- A derailment (mainline or yard).
- Fires resulting in a serious injury or fatality.

DART Actions include:

- DART to notify SSOA and FTA within 2 hours; Investigation required. Notification to FTA will be submitted to: TOC-01@dot.gov / 202-366-1863 (email preferred)
- DART to report to FTA within 30 days via the National Transit Database (NTD).
- DART to record for SMS Analysis.

Incidents

DART will Report to FTA (NTD) within 30 days:

Human Factors:	**Property Damage:**
a. A personal injury that is not a serious injury b. One or more injuries requiring medical transportation away from the event	Non-collision-related damage to equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency

Types of events (examples):

- Evacuation of a train into the right-of-way or onto adjacent track; or customer self- evacuation
- Certain low-speed collisions involving a rail transit vehicle that result in a non-serious injury or property damage
- Damage to catenary or third-rail equipment that disrupts transit operations
- Fires that result in a non-serious injury or property damage
- A train stopping due to an obstruction in the tracks/ "hard stops"
- Most hazardous material spills**.**

DART Actions include:

- DART to report to FTA within 30 days via the National Transit Database (NTD).
- DART to record for SMS Analysis.

Occurrences	
DART will record data and make available for SSO and/or FTA review	
Human Factors: ▪ No personal injury	**Property Damage:** Non-collision-related damage to equipment, rolling stock, or infrastructure that does not disrupt the operations of a transit agency
Types of events (examples): ▪ Close Calls/Near Misses ▪ Safety rule violations. ▪ Violations of safety policies. ▪ Damage to catenary or third-rail equipment that do not disrupt operations. ▪ Vandalism or theft.	
DART Actions include: DART will collect, track and analyze data on Occurrences to reduce the likelihood of recurrence and inform the practice of SMS. Based on the complexity of the accident or incident, an extended final report may be written and submitted to the appropriate safety committee and department head for review and concurrence.	

The coordination between DART and TxDOT SSO occurs frequently. TxDOT maintains an oversight role in ensuring that Corrective Action Plans are timely and clarifying concerns that may arise from accident investigations. Agency Safety & Compliance maintains a monthly conference call with TxDOT ensuring that oversight information is transparent. When results of an investigation indicates a hazard that affects property or individuals, DART develops a CAP and submit to TxDOT SSO for approval via SSO Tracker System. TxDOT must review and approve all proposed corrective actions before DART implements the CAP. An exception is made for immediate or emergency corrective actions that must be taken to ensure immediate safety, provided that TxDOT is notified within 48 hours of implementation. The CAP identifies:

- The hazard or deficiency
- Required actions
- DART department(s) responsible for implementing corrective actions
- Scheduled completion dates for implementation

TxDOT SSO notifies DART of its approval or rejection of the CAP within 30 days of receipt. In the event of a rejection, DART submits a revised CAP within 10 days following notification of the rejection. In the event of a dispute concerning TxDOT's decision, DART may submit an application for administrative review within 30 days after receipt of TxDOT's decision.

Applications for administrative review are submitted to:

Texas Department of Transportation Director, Public Transportation Division 125 E 11th Street
Austin, Texas 78701-2483

If DART does not provide sufficient information to evaluate the application, the application will be denied. TxDOT's decision to grant or deny the application is final.

In instances where coordination with the NTSB is needed for investigation, DART and TxDOT shall review the NTSB findings and recommendations to determine if a CAP should be developed by DART. If a CAP is required by either the NTSB or TxDOT, DART shall develop the CAP following the process detailed herein.

3.2.2. Accident / Incident Investigation

It is the responsibility of DART Agency Safety & Compliance to ensure that all accidents and near misses are thoroughly investigated. Depending on the nature and severity of the accident, a multi-disciplinary team may be needed to conduct a thorough investigation. This team may include representatives from various departments including Transit Police, Traction Power, Train Control/Signaling, Dallas Streetcar Maintenance, Track, Operations, etc. Upon completion of any investigation, DART Agency Safety & Compliance is required to notify TxDOT SSO of any CAP identified as a result of the investigation.

The primary purpose of accident / incident investigations is to determine the cause and contributing factors to the accident / incident so that necessary action(s) can be taken to prevent reoccurrence of a similar events. Accident causation is assessed using DART's SRM process as described in *SMS Component 2* of the PTASP to help qualify possible hazards.

If TxDOT SSO elects to conduct its own investigation of an accident or incident, DART will assist by providing necessary documentation, including access to records or reports, access to staff and personnel involved in the accident / incident, available radio transcripts and video footage, test results, and by coordinating schedules to allow TxDOT SSO to complete interviews and on-site investigation activities. In instances where TxDOT SSO elects to conduct its own investigation, DART may also elect to conduct its own internal investigation.

DART conducts investigations using the accident / incident investigation procedures included in **Appendix XII**. At the conclusion of the investigation, DART submits a final report for TxDOT's formal review and acceptance. If TxDOT SSO identifies a discrepancy with the report, to include findings, TxDOT SSO will reject the report and formally notify DART of the report deficiencies and request that DART review, revise and resubmit the final report. Throughout the entire process, DART provides TxDOT with status reports regarding the investigation and subsequent report.

3.3. Management of Change

Proper configuration management helps to assure that changes and modifications made to any systems, facilities, equipment, operations, and rules and procedures are thoroughly assessed, planned and evaluated to determine their probable impacts on the system and to assure new hazards will not be introduced. This process is managed through a multi-disciplinary approach of DART departments.

3.3.1. Configuration Management

Configuration changes that may have an impact to the safe operation of the system will be thoroughly evaluated by Agency Safety & Compliance staff utilizing DART's safety risk management process to include the use of MIL-STD- 882E in the change management process.

The process of identifying and resolving hazards in the system is based on the U.S. Military Standard MIL-STD-882E and involves:

1. Hazard Identification
2. Hazard Risk Assessment
3. Hazard Risk Mitigation
4. Follow-up on Risk Mitigation effectiveness to include necessary Corrective Action Plans (CAPs) (see **Appendix IX)**

Safety critical hazards that have been identified must be controlled or eliminated so that the hazard does not continue to pose a danger. The controls may be done in a temporary manner until a long-term mitigation has been implemented. Dependent on the risk ranking of the hazards' likelihood and severity, a multi-departmental team may be established to analyze and control these risks/hazards that the configuration change may have created. The teams will be comprised of the following personnel:

- Subject matter experts (SMEs) for the system
- Front-line personnel and supervisors
- All levels of labor
- SSO Agency participation is encouraged
- Safety staff, as support.

DART has consolidated its engineering departments into 1 Engineering section under the Development Department. This Engineering section is comprised of Systems Engineering, Civil Engineering, Fleet Engineering, and Operations Engineering. System safety changes are submitted to the appropriate Engineering group for evaluation. Evaluation incorporates change-management processes that include evaluation, testing, recommendations, and document control of the proposed system safety change. Engineering section resources handle configuration management for DART projects. There are different approaches to configuration management based on operational or other DART project need. The Engineering section handles Operational and Capital project needs through the processes summarized in the following section.

DART Operations Engineering Configuration Management Process(s)

Once a proposed changed is received, DART OE staff:

- Evaluate the proposed change(s) for safety improvement using the Failure Modes, Effects and Criticality Analysis process model (or another similar hazard analysis).
- Test new or modified equipment in the field.
- Prepare a post-testing report outlining findings and opinions on the effectiveness of the proposed change. This report is provided to the appropriate safety committee or department management.
- DART OE performs post-accident equipment assessments to identify the cause of the accident and to document whether changes are needed to maintain compliance with equipment and facility safety requirements.

Upon completion of evaluation, testing and recommendation development, Operations Engineering Staff submits the report to others within the DART organization for review and comment. The following occurs prior to a change being implemented:

- The relevant safety committee or department management reviews the report and decides whether to proceed with the change.
- Upon approval to proceed, a Standard Campaign Bulletin is produced specifying the change and how it is to be implemented, and this information is communicated to all departments impacted by the change.

The City of Dallas Streetcar Representative(s) attends DART Executive Roundtable Review Committee (ERRTC) and Rail Safety Committee (RSC) meetings to stay apprised of Streetcar Safety issues and potential configuration management issues.

DART will ensure that all configuration changes be properly documented including the signatures of DART senior level management and City of Dallas Streetcar Representative.

Capital Project Configuration Management Process(s)

Development has established Change Control Procedures (CCP) to manage contract and design changes on capital projects managed by Development. These processes are document in the current Change Control Procedures manual. To manage configuration on these projects, Development has established a Design Change Board (DCB) to review and approve project design changes during the project life cycles. After a design is baselined all design changes are processed through the Design Review Board for approval. Operations Engineering sometimes utilizes the DCB forum to help with configuration management when scope and complexity of a change requires it.

Documentation

Development utilizes established Document Control Procedures (DCP) to manage records for the operational and capital programs. Records and document control is in the process of being consolidated under the Development department managed by Development Program Support section staff. This consolidated Documents and Records control group is comprised of Operations Document Control (ODC) and Engineering Document Control (EDC).

Operations Document Control (ODC) maintains documentation on the configuration of DART-controlled assets. ODC maintains the configuration management procedures, drawings, and specifications.

Engineering Document Control (EDC) maintains the project information for the Capital program(s) and other DART projects. At the closeout of a project, EDC ensures all project documentation to captured for ODC use for continued maintenance of drawings and other asset changes after turnover to operations.

3.3.2. System Modification Overview

DART uses a standard process for ensuring safety concerns are addressed when modifications must be made to existing systems, facilities, or equipment. No safety-related system modifications may be initiated without use of this process. System safety modifications may be proposed as the result of:

- A response to an identified hazard for mitigation.
- The desire or need to update technology.
- Discontinued manufacture of presently used equipment.
- Remodeling of facilities.
- Equipment design or materials improvement.
- Aesthetic modifications intended to make equipment or locations more attractive.
- Changes in the operating environment.

Proposed modifications to the operating system must be submitted to the Maintenance Technical Services Division for evaluation, testing, recommendations and document control. Once the proposed modification is received, the Maintenance Technical Services Division:

- Evaluates the proposed modification using the Failure, Modes, Effects, and Criticality Assessment model (or another similar hazard analysis model). The modified or new equipment is tested, and findings reported to management.
- Develops a report of findings from analysis and testing.
- Submits test report to appropriate Safety Committee and Senior Management for review.

Prior to a modification being implemented, the following occurs:

- Safety Committee and Senior Management, including the Dallas Streetcar Representative, reviews the report and determines whether to proceed with the modification.
- If the decision to proceed is made, the proposal and the Maintenance Technical Services' assessment is forwarded to the affected department head(s) for approval.
- Upon approval by the department, a Standard Campaign Bulletin is issued, describing the change and how it should be implemented.

3.3.3 Capital Program System Modification

DARTs Capital programs utilize approved System Safety procedures to manage system modifications. More detail on these programs can be found in the current approved system safety procedures and manuals.

3.4. Safety and Security Certification Process

Safety and Security Certification for DART projects is conducted where safety and security certification is required. Development has established approved safety certification processes and procedures to meet this need. Development safety certification processes and procedures are scalable and flexible to meet the needs of any DART project requiring certification. These activities support compliance with this Public Transportation Agency Safety Plan (PTASP).

Development safety certification processes and procedures can apply to all DART projects that require certification. They can be applied to all modes of transportation including Light Rail, Streetcar, Commuter Rail, and Bus as needed. These safety certification processes and procedures are critical in the design, re-design and configuration management of DARTs transit systems.

Development safety certification processes and procedures utilize concepts and methodologies for safety and security certification as prescribed in the Federal Transit Administration (FTA) *Handbook for Transit Safety and Security Certification.* Development safety certification activities are formatted and structured in a manner specifically appropriate (scalable and flexible) for DART's projects.

Safety and Security Certification provides proactive tools and analyses which identify potential safety issues and ensures hazards are mitigated. Safety and Security Certification also supports improved integration of operational considerations into project designs, which can offer the following benefits:

- Improved functionality of system design
- Promotion of effective and efficient use of resources
- Reduction in work arounds and change orders during construction
- Reduction in hazards in operations and maintenance services
- In certain instances, this activity can reduce the need for retrofitting to correct hazards after the system is operational.

The benefits of this process are significant, enhancing not only operational safety and security, but also the functionality of the design and the efficiency of any project turnover to operations and maintenance personnel.

For DART projects outside of DARTs Capital Program, the level of certification is determined based on the nature and complexity of the project. Development safety certification processes and procedures provide a structured process that is scalable and flexible to meet the need for any project that is modifying the operational environment. The DART Director of Systems Safety (DSS), in Development Program Support, assists DART Agency Safety & Compliance and other DART project owners with safety and Security certification activities as needed.

DART Capital Program Safety and Security Certification Process

The DART Director of Systems Safety is responsible for the safety and security certification activities for capital projects under the Development. DART's Capital projects follow the safety and security process ten (10) step process as identified in FTA's "Handbook for Transit Safety and Security Certification". The ten (10) step process is as follows:

Step 1: Identify Certifiable Elements
Step 2: Develop Safety and Security Design Criteria
Step 3: Develop and Complete Design Criteria Performance Checklist
Step 4: Perform Construction Specification Conformance
Step 5: Identify Additional Safety and Security Test Requirements
Step 6: Perform Testing and Validation in Support of the SSC Program
Step 7: Manage Integrated Tests for the SSC Program
Step 8: Manage "Open Items" in the SSC Program
Step 9: Verify Operational Readiness
Step 10: Conduct Final Determination of Project Readiness and Issue Safety and Security Certification

Completing these ten (10) steps ensure that established safety and security requirements are achieved, and the capital project is safe for revenue service to begin. This is accomplished through the use of a structured process that establishes safety and security design requirements based on hazard and vulnerability analysis, applicable codes, standards, and criteria.

The Certification Review Committee (CRC) is responsible for overseeing the identification, evaluation, and resolution of safety hazards and security threats and vulnerabilities for the Capital Program. The CRC is made up of representatives from, Development, Engineering, Design and Construction, Agency Safety & Compliance, Commuter Rail, Emergency Management, DART Police as well as supported by other subject matter experts as required. The CRC reviews hazard analyses and reports. The CRC also serves as a subcommittee to DART Executive Roundtable Review Team Committee (ERRTC) for other DART Projects that need safety and security certification input. More detail about the CRC responsibilities can be found in the current approved SSCP document. Dallas Streetcar Representative is involved in CRC activities which affect the Dallas Streetcar

A Fire Life Safety Committee (FLSC) is also established as required for Capital projects. The FLSC is made up of the local Authorities Having Jurisdiction (AHJ) as well as other authorizes as required by the capital projects. The purpose of the FLSC is to review requirements that are critical to fire and life safety and security and obtain concurrence from local Authorities Having Jurisdiction (AHJ). This ensures proposed designs to meet code requirements and comply with the National Fire Protection Association (NFPA) as well as local fire code standards or fire life and safety and security vulnerability mitigation measures. The FLSC is also utilized for other DART projects where coordination is required. More detail about the FLSC responsibilities can be found in Development Department Systems Safety Manuals and Procedures.

3.5. Safety Compliance Assessment and Inspection

DART has implemented various processes to monitor compliance with its safety rules and requirements.

3.5.1. Drug and Alcohol Compliance

The Agency Safety & Compliance Department administers the DOT Substance Abuse program, which complies with 49 CFR Parts 40 and 655, the Drug Free Workplace Act, and DART's Substance Abuse Policy. DART employees are required to submit to drug and alcohol tests as a condition of employment under DART's policy.

All DART employees receive at least 60 minutes of training on the effects and consequences of prohibited drug use on personal health, safety, and the work environment, and on the signs and symptoms that may indicate prohibited drug use.

Supervisors and/or other DART officials authorized to make reasonable suspicion determinations receive at least 60 minutes of training on the physical, behavioral, and performance indicators of probable drug use and at least 60 minutes of training on the physical, behavioral, speech and performance indicators of probable alcohol abuse. Mandatory personnel re-training in substance abuse is not required, however DART personnel periodically update the prohibited substances literature which is posted in common areas throughout DART facilities.

Contractors are made aware of the DART Drug and Alcohol program requirements in the language set forth in Contractor's Right of Entry Agreements, and License Agreement documents. Paragraph ten of both documents advises all Contractor employees that they are strictly prohibited from engaging in the non-prescriptive use, sale, distribution, dispensation, manufacture or transfer of controlled substances. Contractors or their employees must not possess alcohol or non-prescription drugs on DART property or other worksites, on or off duty. Employees of contractors must not report to duty or remain on duty if impaired by alcohol or drugs.

Safety Sensitive Employees, as defined by DART, include those who:

- Operate revenue vehicles.
- Maintain revenue vehicles.
- Control the movement of revenue vehicles.
- Must have a CDL to operate non-revenue vehicles.
- Carry firearms for security purposes.

Through the ***Employee Assistance Program*** (EAP), DART employees can seek assistance for drug and alcohol-related problems. Immediate discontinuation of any involvement with alcohol or drugs is an essential requisite for participation in any treatment program. Although employees are encouraged to receive help for drug and alcohol problems through participation in the EAP, they must comply with the requirements of DART's Drug and Alcohol prevention programs.

3.5.2. Internal Safety Audits and Annual Review

An internal safety audit program, overseen by Agency Safety & Compliance, measures the effectiveness of the PTASP in achieving the overall objectives of the plan and compliance with its requirements. DART's internal safety audit program is designed to:

- Ensure safety observations are conducted by supervisory or safety staff during system maintenance, operations, and modification.
- Verify compliance with management's safety objectives as stated in Section V of the PTASP.
- Ensure compliance with operating rules, regulations, standards, codes and procedures.
- Recommend corrective action plans.

3.5.2.1. Internal Rail Safety Audits

DART shall develop and implement a process for the performance of on-going internal safety reviews (ISRs). This process evaluates the PTASP implementation, effectiveness, and serves as an internal tool to ascertain if the plan or supporting documents or procedures should be updated. DART shall develop and annually submit to TxDOT, for approval, a review package which addresses the areas of the PTASP over a three-year cycle.

DART will develop an annual internal rail safety audit plan and schedule to address the requirements of 49 CFR Parts 672 and 673, and any revisions of the TxDOT SSO Program Standard.

The internal safety audits will be focused on the content of the PTASP to include the four (4) components of DART's SMS. See **Appendix VII** for a listing of DART's safety roles and responsibilities and tasks (by department) noting their primary or secondary participation. Agency Safety & Compliance is responsible of scheduling the internal safety audits on an annual basis.

Additionally, the revised Internal Rail safety Audits will be designed to help DART to monitor operations and to identify any safety risk mitigations that may be ineffective, inappropriate, or that were not implemented as intended.

3.5.2.2. Annual Internal Safety Review

DART Agency Safety & Compliance is responsible to assure that Internal Safety Reviews are conducted. As needed, a consultant with PTSCTP certification may be used to augment DART Agency Safety & Compliance staff with these audits. Each year, a section of the PTASP and SMS will be reviewed and on a three-year rotating basis. This tool is used on an on-going basis to evaluate the effectiveness and determine if updates to the PTASP are required. Sixty (60) days before the audit is scheduled, an audit schedule will be developed and provided to TxDOT to fulfill SSO notification and to gain approval. The Internal Safety Review report will be submitted within 60 days of the closeout meeting to TxDOT SSO for review and acceptance. In no case shall DART submit the ISR final report later than February 1st.

During the audit process, each PTASP section being reviewed is analyzed via on-site interviews, visual observations, records reviews, inspections, measurements, testing, process reviews and documentation supporting compliance. TxDOT SSO requires several action items to be included in the annual review report noting departmental processes via a checklist to determine compliance with procedures and reporting requirements.

Findings and recommendations are summarized and submitted for approval to Agency Safety & Compliance in draft form. The report is reviewed, and modifications can be requested. If no modifications are necessary, the document goes back to the contractor for finalization. Once the Internal Safety Review is complete, a report is generated for DART's President & Chief Executive Officer's signature, which affirms the completion of Internal Audit Review for that calendar year. The report includes the status of current findings, recommendations, and CAPs.

The final report is also issued to Agency Safety & Compliance along with the findings which are disseminated to affected departments and to TxDOT SSO. If findings are a product of the safety review, then a CAPs will be generated to mitigate these findings. Findings and potential mitigations are submitted to TxDOT SSOA Program Manager for mitigation approval. Once approval or modification to CAP occurs, the mitigation starts. Findings are tracked monthly via the CAP log until they can be verified as being fully implemented and effective. Evidence of completion of CAPs being closed is collected as a record and reported to the TxDOT SSO program. Recommendations are listed into the Hazard Identification Log at the discretion of the agency.

DART's Annual Internal Review process is subject to change as a result of changes made to the TxDOT SSO Program Standard.

3.5.3. Rules Compliance and Procedures Review

DART maintains Standard Operating Procedures (SOPs), work instructions, and rulebooks for the operation and maintenance of Streetcars, rights-of-way, and structures. Operating rules and procedures promote safe, efficient and timely transit operations. Rules compliance programs have been developed as structure for these initiatives.

Review of Rules and Procedures

Periodic reviews of established rules and procedures are conducted to evaluate their continued effectiveness. Safety audits the procedural documentation and is an active member on both the Bus and LRT Rules Committees, which review operations rules annually and incorporate related interim bulletins into their respective Rule Books. Operations rules for both rail and bus are subject to change and occur due to new regulations, technology changes, system expansion, new equipment, hazard identification, or other operating considerations. Both Rules Committees are responsible for:

- Reviewing Rules, SOPs and Work Instructions (WI) as needed. Changes are incorporated into rules' revisions and are recorded in Document Control. The new SOPs and WIs are available to all personnel.
- Issuing Notices to document temporary changes that will not become permanent. Bulletins document permanent changes that will be incorporated into the next edition of the Rule Book.

3.5.4. Process for Ensuring Rules Compliance

Transportation ensures rules compliance with operating rules, bulletins, and SOPs through efficiency testing. Efficiency testing is conducted monthly and assigned at the Sr. Manager level or their designees.

Transportation and Maintenance Senior Managers are responsible for assessing the effectiveness of supervision relating to the implementation of operating and maintenance rules. This function is carried out by ensuring checklists, assessments, and efficiency testing is conducted by supervisory staff, and by periodically observing supervisors as they carry these tasks." This assignment is routed to Rail Operations and Maintenance supervisory personnel. Rail Operations testing is administered to rail operators and to TCC personnel.

Efficiency testing of maintenance personnel is also a vital component of rules compliance evaluation. Maintenance testing assigns a workflow number to each individual assessment being administered following Efficiency Testing procedure as included in **Appendix XIII**. Upon completion, the evaluation results are updated in the workflow and reassigned back to the Sr. Manager for conformation of completion and review. The assessment results are documented in the workflow as to specifics of purpose, criteria, results, remarks, and action items, if required. If the evaluation includes deficiencies, action items or elements for hazard mitigation, appropriate measures are initiated. Identified hazards are documented via workflow to Agency Safety & Compliance and the Hazard Identification protocol, if mitigation is unlikely at the Sr. Manager level.

Efficiency Testing results for Field Operations are captured via spreadsheet containing relevant data that can be sorted by occurrence, location, or rule compliance observation. Data from TCC testing are logged via an Efficiency Test Form which highlights the test being performed, personnel information, and rules assessment identification.

3.5.5. Safety Culture Assessment

Safety culture is part of an organization's overall leadership capability and has been defined as "the collection of beliefs, perceptions and values that employees share in relation to risks within an organization, such as a workplace or community.[1]" The overall goal of a Safety Culture Assessment is to provide a mechanism for DART employees to identify their safety concerns, become engaged, and to ultimately provide DART management with assistance and guidance in developing programs to foster desirable safety behaviors and attitudes. Initial and ongoing engagement with employees is the best indicator and will help to determine how they perceive safety within the DART organization.

The Safety Culture assessment can be captured in two (2) distinct ways:

- Annual formal surveys.
- Informal discussions ongoing throughout the year, led by department heads and the Agency Safety & Compliance team members.

[1] Cox, S. & Cox,T. (1991) The structure of employee attitudes to safety - a European example Work and Stress, 5, 93 - 106

As an ***Annual Formal Survey***, DART will utilize an online survey tool to assist in distributing the Safety Culture Assessment to as many employees as possible. In instances where online access may be difficult for employees, DART will provide paper copies of the survey for completion.

Upon completion of the online and paper surveys, the results and any subsequent comments will be compiled into an overall report. The initial survey will help to establish a baseline for the DART organization with subsequent surveys being used to determine the effectiveness of the DART SMS and to identify any new trends or activities.

Informal Discussions will be conducted by DART Management and Safety staff through continuous engagement with employees and will use these encounters to help assess the current safety culture and concerns from the employees. These encounters can be one-on-one or through committees such as the local safety committee or joint labor management committees.

Significant information that is gathered from these informal discussions should be fed back to DART Agency Safety & Compliance for inclusion to the DART safety data in order to assist with identification of trends or a precursor to a more serious incident.

3.6. Safety Performance Assessment

An internal safety performance assessment, overseen by Agency Safety & Compliance, measures the effectiveness of the PTASP in achieving the safety goals and objectives of the agency and compliance with the PTASP and SSO Program Standard requirements. The primary objective of the internal safety performance assessment is to determine if the processes, procedures, and policies that have been developed through the PTASP are being implemented throughout the DART Organization. Further, the assessment seeks to determine the effectiveness of the requirements set forth in the PTASP and identifies whether changes in process, procedures, and/or methods are needed. Annually, the internal safety performance assessment is completed to:

- Ensure safety observations are conducted by supervisory or safety staff during system maintenance, operation, and modification.
- Review and evaluate compliance with the PTASP safety objectives statement.
- Review and evaluate that PTASP goals and objectives are aligned and consistent with the DART management goals and objectives.
- Review the DART management structure to assure that the most current is included in the PTASP.
- Review and evaluate the DART SMS implementation program to assure that all are being completed in an appropriate and timely manner.
- Review and evaluate the SRM program to determine and assure that the processes are being implemented across the DART organization and are effective.
- Review and evaluate Employee safety reporting program to assure the effectiveness of the process by monitoring the Hazard ID Log, anonymous reporting and Safety Managers independent tracking log that addresses face to face reports.
- Review and evaluate the change management and system modification review process to assure that safety concerns and hazards are being identified, reviewed and mitigated (as needed) and that safety is part of all reviews.

- Review and evaluate the DART safety certification program to assure its implementation and use for capital projects.
- Review and evaluate the processes being used to collect and analyze safety data and how those trends are developed and reported throughout the DART organization.
- Review and evaluate the DART accident / incident reporting and investigation process to assure that appropriate notifications are being made, in the prescribed timeframe, as well as any investigation reports or findings are appropriately assessed, mitigated and tracked through to completion.
- Review and evaluate the process to determine that emergency plans and procedures are reviewed and updated, and that coordination is conducted with external agencies.
- Review and evaluate the internal safety review process to assure that all SMS components are reviewed and that findings from these reviews are assessed, mitigated and tracked through to completion.
- Review and evaluate the facility and equipment inspections process to assure that these are being completed at the prescribed times and that any findings or significant non-conformances are assessed, mitigated and tracked through to completion.
- Review and evaluate the maintenance audits and inspections to assure proper completion based on the identified maintenance cycles and that any findings, non-conformances and trends are assessed, mitigated and tracked through to completion.
- Review and evaluate the DART training program to assure that proper training is identified and being completed for all safety sensitive employees.
- Review and evaluate the DART configuration management program to assure its being conducted and to aide in determining its effectiveness.
- Review and evaluate the DART hazardous material program and processes to assure compliance with current codes and to assess the implementation throughout the DART organization.
- Review and evaluate the DART drug and alcohol program to assure that it is implemented and in accordance with current regulations.
- Review and evaluate the DART procurement processes to assure that safety is integrated into the procurement process to review and prevent potential unsafe equipment and materials from being introduced on DART property.
- Ensure compliance with operating rules, regulations, standards, codes and procedures.
- Review and evaluate recommended corrective action plans identify the hazard or deficiency, planned activities/actions to resolve the hazard/deficiency, the division(s) responsible for implementing the corrective actions, and a scheduled completion date for implementation..

4.0. SAFETY PROMOTION

The purpose of DART's comprehensive safety training program is to ensure that employees, contractors, and external stakeholders (i.e. first responders) are properly equipped with the necessary knowledge and skills required to work safely while in DART's operations and facilities, and on DART properties.

DART realizes that there are a multitude of ways to promote safety throughout the organization and more importantly, throughout the community that it serves. Ongoing promotion of safety not only increases awareness but helps to foster a more conducive environment where employees and general public feel more safe and secure.

As part of its Safety Promotion implementation plan, DART will review and consider the following ways of promoting safety:

- Use of social media such as Facebook and Twitter to send out safety alerts and proactive safety tips. Feedback from social media users can also be used to support the safety data and acquisition portion of SMS.
- Use of DART intranet, bulletin boards and work area common spaces to post safety information and alerts.
- Establishing a daily or weekly rule notice for employees as a reminder of how to work and think about safety.
- Conducting toolbox talks with DART maintenance employees regarding occupational safety rules.
- Utilizing Safety Committee members to continuously promote safety throughout their work area and also assist with providing follow up to reporting issues.
- Development of a safety performance and recognition system that will allow DART to demonstrate employee's use of and implementation of safe work practices.

4.1 General Safety Training and Competencies

The DART Operations Training Department provides safety-specific training for DART operations. Safety rules and techniques are integrated into the task-specific training associated with each departmental discipline. Safety personnel or other qualified department instructors conduct task specific training. DART also conducts safety training for external stakeholders and contractors. All DART provided training includes the conveyance of information related to hazards, safety risks, and employee/stakeholder role and responsibilities to work safely and report safety concerns immediately.

The DART Maintenance Employee Training Program includes a comprehensive set of *Scheduled Required Courses* and *Non-Scheduled Required Courses*. These training courses are included in each maintenance employee's "**Career Plan**", inclusive of specific maintenance craft/specialty areas. Career Plans include maintenance employee upgrade requirements which detail the required training courses to permit maintenance employees to progress through the maintenance classifications. The Career Plans for maintenance employee progression is included in **Appendix XIV**.

4.1.1 DART Safety Training

Safety training includes:

- Operators that are assigned to Dallas Streetcar must receive Streetcar specific training prior to operating vehicle.
- **New operator certification and operator re-certification.** This class is designed to provide the initial training to new light rail vehicle operating employees. The re- certification is an annual re-familiarization and testing to ensure personnel remain fluent on operational practices and procedures.
- **High rail certification and re-certification**. This class is designed to provide the initial training for operation of work trains on DART's yard and mainline tracks. The recertification is an annual re-familiarization and testing to ensure personnel remain fluent on operational practices and procedures.
- Post-incident and violation re-training
- **Light Rail Worker Protection Program (LRWPP)** is a training course for DART employees and contractors who work on the light rail right-of-way or yard must complete a mandatory Light Rail Worker Protection Program (LRWPP) training course. A refresher training course is required annually thereafter. DART has identified that LRWPP training course as the Public Transportation Safety Certification Training Program (PTSCTP) refresher training for staff and contractors the agency has designated as PTSCTP participants.
- **Operation Lifesaver** is a course which helps reduce the number of light rail vehicle collisions with rubber-tired vehicles, pedestrians, and trespassers and is taught by DART employees to the public. The goal of this training is to educate the public to the hazards associated with an active rail system which will ultimately reduce deaths and injuries.

- **Quarterly Safety Training** is conducted by DART Agency Safety & Compliance in January, April, July and October of each year and is mandatory for Transportation and Maintenance personnel. Agency Safety & Compliance determines the topics and curriculum based on current events, recurrent training required by law, or training required by changes in safety-related laws, regulations, guidelines, DART policy, SOPs, and work instructions. Training sessions are documented through participant sign in sheets.
- **Collision Avoidance** training is provided to employees involved in preventable accidents or who have been identified as being high-risk operators. Safety notifies the employees operating division and the training section after a collision is classified as preventable. The Transportation Training Section conducts the training and maintains permanent records of the classes.
- **Defensive Driving** training is provided to DART employees. Qualified personnel in Safety and Transportation personnel are qualified to offer the National Safety Council sponsored course. Training records and documentation are maintained in the Transportation Training Section. This training is not required for rail operators.
- **Environmental and Health** training is conducted annually for compliance with Texas Commission on Environmental Quality (TCEQ), Texas Department of State Health Services (TDSHS), Environmental Protection Agency (EPA) regulations and Occupational Safety and Health Administration (OSHA) guidelines. Safety and Environmental staff are qualified to conduct this training.
- **Streetcar Operator training** is provided to DART employees seeking to become certified streetcar operators. Operators that operate the streetcar must first be certified as an LRV operator. Not all LRV operators will hold the designation as a certified streetcar operator. The initial LRV training includes both classroom and practical training experiences. Streetcar Operators must complete 5 days of additional training which consist of two days of classroom and testing, and three days of vehicle operation.
- **Streetcar / LRV Train Controller Training** is provided for all DART Controllers. Prior to this training, the employee must complete the DART LRV operator certification program. After completion of the operator certification, these employees must complete a **17- week** controller training class to become certified as a Rail Operations Controller. Controllers must re-certify as a controller and rail operator on an annual basis.
- **De-escalation Training** is training course is directed under The Bipartisan Infrastructure Law and requires maintenance personnel, operations personnel, and personnel directly responsible for safety to complete de-escalation training. This training course teaches our frontline employees about techniques to defuse stressful passenger situations and raise awareness of operator assaults and to ensure their safety, as well as the safety of others. This training is required bi-annually.
- **Maintenance Safety Training** is provided to maintenance employees by Agency Safety & Compliance to include one-hour quarterly meetings, Light Rail Worker Protection training and review current SOPs and work instructions related to safety. Maintenance employees that are required to operate work trains on DART's track must also receive the high-rail certification class. In addition to the training they receive, each month shop supervisors will review and discuss one of the following topics:
    - Power industrial truck
    - Fall protection procedures

- Blood-borne pathogens and biohazard clean up procedure
- Fire and emergency evacuation safety practices
- Welding cutting and brazing safety procedures
- Hazardous communication (HAZCOM) safety procedures
- Hearing conservation
- Electrical safe work practices
- PPE safety procedures
- Lockout/tagout safety procedures
- Spill response safety procedures
- Confined space safety practices

4.1.2 External Stakeholders / First-Responder Training

As detailed in this PTASP, Section IX and the DART Emergency Operations Plan (EOP), the Emergency Preparedness Manager works with Emergency Management Coordinators in member cities and counties to ensure there is a unified emergency response among DART's member cities. Coordination takes place through meetings, email, phone conferences or other means as determined by the Emergency Management Coordinators.

The DART Emergency Preparedness section maintains a Master Training and Exercise Plan that identifies agency and regional exercises by quarter. This plan is reviewed and updated annually.

System familiarization training is scheduled bi-annually for local fire departments. This training is also available out-of-cycle by request of any response organization. The DART Emergency Preparedness section has recently begun a training program in conjunction with the Dallas Fire Rescue Academy to have ALL trainees receive familiarization training on the Dallas Streetcar vehicles and all agency operated modes including the north central tunnel.

4.1.3 Training Records Review

Training records are requested and reviewed by Safety and auditors, both internal and external, to ensure training is consistent with governmental and DART policies, procedures, regulations, SOPs, and work instructions. Training records are reviewed on an annual basis by the responsible department. Reviews of training records are conducted by external auditors every three years and by DART Agency Safety & Compliance as needed. Safety training records are maintained by the Agency Safety & Compliance and by the affected departments.

4.1.4 Contractor Safety

Detailed requirements for contractors' safety for DART Projects are addressed in DART's formal Construction Safety and Security Program document, included as **Appendix XV.** All personnel and contractors that conduct investigations on behalf of TxDOT shall be, at a minimum, be trained to perform their functions in accordance with the Public Transportation Safety Certification Training Program. (and any DART training too).

4.1.5 Compliance with Local, State and Federal Requirements

The Light Rail Worker Protection Program (LRWPP) establishes DART's safety standards for employees, contractors, and visitors performing duties in or adjacent to the Streetcar right-of-way. DART employees and contractors must comply with the LRWPP and the DART Light Rail System Book of Operating Rules. The requirements of the LRWPP are designed to provide a safe work area free from the dangers of working in Streetcar and light rail system right-of-way or when fouling the track. The rules and procedures in the LRWPP govern Light Rail Workers, train operators, Train Control Center personnel, and any other persons entering DART's right-of-way and is developed to be compatible with 49 CFR 214, subpart C, Roadway Worker Protection.

DART has implemented a 4-hour and 8-hour LRWPP training course that includes initial and annual re-qualification training. Proficiency in LRWPP requires completion of course requirements and passing the exit exam with a score of 80% or better. Employees that fail to meet the proficiency standard are allowed one (1) opportunity to retake the exam. If they do not successfully pass after retaking the exam, the person must retake the class.

LRWPP course content includes the following elements:

- Dangers on the roadway, including moving trains, traction power system, and known hazardous conditions
- Tasks required of Light Rail Workers to perform their duties successfully
- Skills and knowledge necessary to perform each task as assigned
- Standards for successful completion of initial and re-qualification training
- LRWPP rules and procedures
- Lessons learned from other rail transit agencies

DART has adopted a training curriculum to teach the skills and knowledge necessary to implement the awareness/tasks required by the Agency's Light Rail Worker protection policies and procedures. **Table 12** identifies the LRWPP training hours required by job classification. Minimum requirements of the training course include:

- Policies, procedures and rules unique and specific to DART
- Methods used by DART to establish on-track protection
- Responsibilities of Light Rail Worker relative to each method of establishing on- track protection used by DART
- Personal Protective Equipment (PPE)
- Prohibited Acts and Personal Precautions while working on the right of way
- Communications between train operators, other employees on-site, and the TCC
- Characteristics of the right-of-way
- Interfacing with train or other on track equipment movements
- Highway vehicle traffic considerations
- Removal/restoration of traction power
- Responsibilities for flagger/watchmen protections of work crews
- Hand signals for trains
- Hazards
- Audibles

The DART LRWPP program can be found in **Appendix XVI**.

Table 12: Required LRWPP Hours for DART Employees

Job Classification	Required LRWPP Hours
WSA *Signals employees are required to have current FRA certification.*	8 Hours
Train Operators	4 Hours
Rail Supervisors	8 Hours Flagger Certification
Agency Safety & Compliance	8 Hours Flagger Certification
Rail Fleet Services	8 Hours Flagger Certification
Operation Engineering/Facility System Engineering	8 Hours
Development	4 Hours for some, Others, 8 Hours, TBD
Procurement	4 Hours
Real Estate	4 Hours
Environmental	8 Hours
Police	4 Hours
TVM Techs	1 Hour
DART Contractors/Public Utilities Non-DART	4- or 8-Hours Flagger Certification

In the approximately 20% of DART's light rail system where the corridor is shared with an FRA Railroad, FRA rules always supersede DART procedures.

4.1.6 Hazardous and Regulated Materials Management and Training

DART Maintenance, Procurement, Materials Management, Operational Safety and Environmental Compliance departments are responsible for management of hazardous and regulated materials. DART maintains SOPs, work instructions, regulatory permits and plans to manage DART's hazardous and regulated materials.

DART's SOPs provide instruction and guidance in how to handle hazardous and regulated materials. The primary SOP's are located in **Appendix XVII** and include the following:

- NPG-0769 Hazardous Communication (HAZCOM) Safety Procedures
- NPS-0044 Hazardous/Regulated Waste Management
- NPS-0045 Spill Response Safety Procedures
- APG-0862 Underground Storage Tank and Bulk Fluid Management.

Spill Prevention Control and Countermeasure (SPCC) plans have been developed and implemented in accordance with 40 CFR § 112 for DART's maintenance facilities. Storm Water Pollution Prevention Plans (SWP3) have also been developed and implemented in accordance with Texas Pollution Discharge Elimination System Multi-Sector General Permit TXR050000 for DART's maintenance facilities. Both the SPCC and SWP3 provide information on materials management and how to prevent or minimize impacts to the environment. DART Maintenance *SOP NPS-0045, Spill Response Safety Procedures,* instructs personnel responding to these events.

Safety Data Sheets (SDS) provide information on material handling for each individual product used at DART facilities. In compliance with 25 TAC § 295 Subchapter, DART maintains a HAZCOM program and manages SDSs through a database located online at http://dart.online-msds.com/. This website can be accessed from any DART computer or smart device with an internet connection. DART also maintains SDSs at each facility on "flash drives" in the event internet service is down. These flash drives are updated quarterly.

Employee training is conducted to provide instruction regarding hazardous and regulated materials management. The training is conducted either by or with the assistance of DART's Maintenance Section, Agency Safety & Compliance or DART's Environmental Compliance Section. Training includes storm water compliance, spill cleanup training, petroleum management and HAZCOM training.

4.2 Safety Communication

4.2.1 Safety Performance Communication

DART's safety goals and objectives, and its safety performance targets, as detailed in the PTASP, Section X are communicated to all employees through agency wide safety campaigns as well as utilizing DART's intranet platform to continually promote our safety goals, objectives, and safety performance targets and to ensure that any modifications to safety goals, objectives, and safety performance targets are immediately available.

Additionally, our safety goals, objectives, and safety performance targets are promoted through quarterly safety meetings for Operations, Maintenance and Materials Management personnel. This requirement ensures that all participants receive agency information timely. Informal minute clinics are an improv group setting in common work areas that could have predetermined topics but encourage engagement from participants from the same employee base. Depending on group participation, minute clinic topics can change based on current external conditions or employee concerns. Management and front- line employee interaction enhance the success of these informal gatherings. Electronic bulletin boards are located agency wide near common work areas and provide consistent and up-to- date agency information. All DART employees are provided with agency e-mail accounts which grants communication to a specific targeted audience.

4.2.2 Communicating Safety Actions

DART's Hazard ID Workflow System is utilized to track known hazards. As detailed in PTASP, Section 1.3, employees are able to monitor actions taken by DART staff/team members to address reported concerns. Additionally, DART's Department Heads are ultimately responsible for ensuring assigned employees are aware of hazards in their respective work areas; as well updating employees on actions being taken to address subpar safety conditions (in real-time).

Responses and the actions taken are communicated to all employees via the internal organizational workflow system. Concerns once validated are assigned to the hazard identification process. The direct manager of the employee initiating the reported hazard is given the first opportunity to address the hazard and provide the employee with an update. If the concern is validated by the manager but he/she is unable to address or mitigate the item at their departmental level the employee will be notified, and the concern will then be forwarded to Agency Safety & Compliance who assigns the hazard ID to the appropriate Safety Committee for resolution. Updates, decisions, and timelines of the mitigation process are input into the Hazard ID workflow system where the employee may continue to monitor the status of the Hazard ID until a resolution is reached.

5.0 DOCUMENTATION OF PTASP AND SMS IMPLEMENTATION ACTIVITIES

DART's Vice President, CSO is responsible for maintaining the Agency's documents which set forth its PTASP, including those documents related to the implementation of its SMS, and results from SMS processes and activities. The PTASP and SMS documents include in whole, or by reference, the programs, policies, and procedures that DART uses to carry out its PTASP. The Vice President, CSO manages these documents, incorporating the configuration management procedures detailed in DART's Document Control procedures and reviews by the DART Streetcar Rules Committee. All PTASP and SMS documents are maintained for a minimum of three years after they are created.

For the purpose of reviews, investigations, audits, or other purposes, any PTASP or SMS related documents will be made available upon request, by FTA, TxDOT State Safety Oversight Agency, and other Federal and State entities having jurisdiction.

Appendices