# State Safety Oversight Program Standard

August 2024 Public Transportation Division



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# **Program Standard Approval**

Docusigned by: Enc Glason	8/29/2024	
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Eric L. Gleason	Date	

**Director, Public Transportation Division** 

# **Document Revision Record**

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# **Section 1: Program Management**

#### 1.1 **Purpose and Organization of State Safety Oversight Program**

The Texas Department of Transportation (TxDOT) is designated as the State Safety Oversight Agency (SSOA) in Texas responsible for carrying out the functions of the federal State Safety Oversight (SSO) Program to oversee and enforce the safety of the rail transit agencies (RTAs) within the state. This Program Standard describes those responsibilities and functions, as well as each RTA's responsibilities for implementing program requirements. The Program Standard also contains additional supplemental information including guidance, forms, and checklists as appendices and references them throughout the document as appropriate.

#### 1.2 **SSOA Authority**

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

During the 85<sup>th</sup> Regular Legislative Session, The Texas Legislature enacted S.B. 1523 on June 1, 2017, which provides TxDOT the authority to establish and enforce minimum standards for the safety of all RTAs within its oversight. These standards are consistent with the National Public Transportation Safety Plan (NPTSP), Public Transportation Safety Certification Training Program (PTSCTP), rules for Public Transportation Agency Safety Plans (PTASPs), 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. It provides a legal framework, consistent with the Program Standard, for each RTA in Texas to follow to create, implement, and administer program requirements for their respective agencies, including, provisions for requiring immediate and milestonebased corrective action plans (CAPs) to resolve identified deficiencies in the agency's implementation of its PTASP and to address identified hazards and safety concerns requiring mitigation.

TxDOT's SSO Program authority applies to each RTA located within the state of Texas that is operated for public transportation and not subject to the jurisdiction of the Federal Railroad Administration (FRA), or any such system in the engineering or construction phase. Such agencies shall include rapid rail, heavy rail, light rail, monorails, trolleys, inclined planes, funiculars, and automated guideways.

The RTAs in Texas qualifying for SSO oversight include:

- 1. Dallas Area Rapid Transit DART
- 2. City of Dallas Dallas Streetcar DSC

- 3. McKinney Avenue Transit Authority MATA
- 4. Houston METRO
- 5. City of Galveston Galveston Island Trolley GIT
- 6. City of El Paso El Paso Streetcar EPSC
- 7. Capital Metropolitan Transportation Authority (Austin area) CapMetro

### The TxDOT SSO Program:

- Is financially and legally independent from any RTA it oversees;
- Does not directly provide public transportation services in an area with an RTA;
- Does not employ any individual who is also responsible for administering an RTA;
- Has authority to audit, review, approve, oversee, and enforce an RTA's PTASP;
- Has investigative and enforcement authority with respect to the safety of all RTAs within the State of Texas.

More specifically, TxDOT has the enforcement and investigative authority to:

- Enforce federal and state laws on all RTAs in the state of Texas;
- Review, approve, oversee, and enforce the required PTASP;
- Oversee the implementation of an RTA's PTASP;
- Investigate and enforce the safety programs of the RTA during announced and unannounced site visits or inspections by TxDOT employees and its contractors;
- Coordinate all enforcement responsibilities with other governmental entities as needed;
- Issue an emergency order to temporarily shut-down RTA operations in response to an imminent threat to the safety of the general public;
- Issue an emergency order to an RTA to remove persons, equipment, or facilities from service;
- Seek a temporary injunction to enforce an emergency order.

The mitigation of identified RTA deficiencies will rely on the agencies' timely implementation of comprehensive CAPs to which both the SSO and RTA must agree. In the event of an RTA's nonresponsiveness, TxDOT will follow the escalation procedure described in Section 10 in this manual.

# **Allegations of Noncompliance**

TxDOT has primary responsibility for the investigation of any allegations of noncompliance with an RTA's PTASP. TxDOT will use the following criteria to evaluate allegations to determine whether they constitute noncompliance:

- The RTA takes action that directly violates published content within its PTASP.
- An RTA transit worker takes action that directly violates published content within its PTASP.

Any person may submit an allegation electronically via TxDOT's TRACKS complaint system at https://www.txdot.gov/about/contact-us/complaints.html or by email at sso\_reporting@txdot.gov or by telephone at (512) 486-5977. Allegations reported via electronically and telephone must adhere to the following guidelines:

- 1. Provide your information to the responding SSO Program Manager
- 2. Persons notifying TxDOT of allegations of non-compliance may do so anonymously but are encouraged to provide contact information in case TxDOT needs additional information to investigate the allegation.
- 3. Provide sufficient detail for TxDOT staff to determine whether TxDOT SSO has jurisdiction over the allegation, as well as, to determine the pertinent facts of the allegation.

The TxDOT SSO Program Manager will acknowledge receiving the allegation, manage the investigation of the allegation, and submit a report and findings of the investigation to the TxDOT Public Transportation Division leadership within 30 calendar days. Extensions may be granted for valid investigation purposes by the division leadership.

TxDOT may investigate allegations or refer them to the affected agency's Chief Safety Officer (CSO) for investigation. In either case, TxDOT will ensure the completion of a thorough, impartial investigation and investigation report within 30 calendar days.

If TxDOT determines the allegation does not constitute noncompliance with the RTA's PTASP. but rather an issue the RTA can address through its safety risk management process, TxDOT will notify the complainant accordingly.

# SSOA Organization

The SSO Program is managed by SSO Program Management staff who work in the Administration and Program Support Section of the TxDOT Public Transportation Division (PTN). The SSO Program Managers report to the Administration and Program Support Section Director, who in turn reports to the PTN Division Director. The PTN Division Director reports to the Director of Planning and Modal Programs in the Texas Department of Transportation.

Appendix C includes an organizational chart showing the various reporting relationships under the TxDOT Executive Director, who serves as the highest-ranking state transportation agency official in Texas.

#### **Internal Agency Policies** 1.5

### **Conflict of Interest**

No individual or entity may provide services to both the SSOA and the RTA when there is a conflict of interest or an appearance of a conflict. A conflict of interest occurs when an individual or entity performing work for an SSOA or the RTA is unable, or potentially unable, to render impartial assistance or advice on the development or implementation of the standards and provisions or to perform such work without bias. A third-party contractor to the FTA, the SSOA or an RTA may not have an unfair

competitive advantage over other contractors. Each contractor is subject to full disclosure of all present and potential conflicts of interest in its activities or relationships prior to the award of a contract with the FTA, TxDOT or an RTA.

# On-Site Visit Provisions and RTA Roadway Worker Protection (RWP)

An RTA transit worker will accompany TxDOT employees and contractors during any on-site inspection in non-publicly accessible areas. If the RTA requires roadway worker protection (RWP) training, then the RTA shall provide such training and issue an agency identification badge or card to TxDOT employees and contractors upon successful completion of such training. TxDOT employees and contractors will be required to display their identification badges or cards while on RTA controlled property.

### **SSOA Confidentiality**

The following documents an RTA submits to TxDOT are confidential and not subject to disclosure, inspection, or copying under Chapter 552, Texas Government Code: investigation reports, security documents and reports, audit reports, operational reports, and security plans and reports These documents may not be admitted in evidence or used for any purpose in any action or proceeding arising out of any matter referred to in an investigation except in an action or a proceeding the State of Texas institutes.

# SSOA Annual Report to the FTA

By March 15<sup>th</sup> of each year TxDOT shall submit an annual report to the FTA in compliance with 49 CFR Part 674.39, SSOA Annual Reporting to FTA. TxDOT will submit the annual report data and documentation to the FTA using the FTA's State Safety Oversight Reporting System (SSOR System). In the event of an SSOR System outage, TxDOT will coordinate with its FTA Program Manager to ensure timely submission of the annual report.

TxDOT shall submit the following items as part of its Annual Report to the FTA:

- The SSO Program Standard adopted in accordance with 49 CFR Part 674.27, with an indication of any changes to it during the previous calendar year;
- Evidence TxDOT employees and contractors have completed the requirements of the PTSCTP or, if in progress, the anticipated completion date of the training;
- A report summarizing its oversight activities for the preceding 12 months; describing the causal factors of accidents identified through investigation; and identifying the status of CAPs, changes to PTASPs, and the level of TxDOT's effort to carry out its oversight activities;
- A summary of the Triennial Audits completed during the preceding 12 months, and the RTA's progress in carrying out CAPs arising from those audits;
- Evidence TxDOT has reviewed and approved any changes to the RTA's PTASPs during the preceding 12 months;
- Certification that TxDOT is compliant with the requirements 49 CFR 674;

 Any additional data, information, or documentation the FTA request; which may include the PTASP, Internal Safety Review Report (ISR), Accident Investigation Procedures, and a certification the RTA is compliant with its PTASP.

By January 15th, TxDOT will review the required items and notify the RTA Safety Staff of any missing or outdated documents or data the RTA must be corrected prior to TxDOT submitting the annual report to the FTA.

No later than February 1st, the RTA must make all requested data corrections and submit any requested documentation to TxDOT. TxDOT SSO Program Managers will coordinate with RTA staff until all document and data requests are completed so TxDOT may submit the annual report by FTA's March 15<sup>th</sup> deadline.

# **TxDOT SSO Program Annual Status Report**

By May 31st of each calendar year, TxDOT shall report each RTA's safety status to the Governor, the Lieutenant Governor, the Speaker of the Texas House of Representatives, the FTA, and the governing body of each RTA system under the Department's oversight. The report will summarize the activities of TxDOT's SSO Program to address state and federal safety regulations during the previous calendar year. TxDOT shall submit the report to FTA; email it to each RTA's Accountable Executive (AE), CSO, and Board; and post it online at www.txdot.gov/inside- txdot/division/public-transportation/statesafety-oversight.html.

#### **TxDOT Monitoring of RTAs** 1.8

TxDOT will monitor each RTA's execution of its PTASP using methods such as desk reviews, data analyses, inspections, onsite reviews, observations, triennial audits, and risk-based inspections (RBIs).

Within 30 calendar days of any monitoring activity, TxDOT will provide a report to the RTA's CSO including a summary of completed monitoring activities and any findings of non-compliance. TxDOT may also include best practice recommendations within the monitoring report.

#### 1.9 **TxDOT and RTA Communications**

TxDOT will continue to engage in and encourage proactive two-way communication among current and future RTAs, and federal and state elected officials. The Public Transportation Division (PTN) -TxDOT SSO Program staff and contractors will serve as the coordinators of those communications. Communication methods include, but are not limited to, United States Postal Service (USPS) mail, electronic mail (e-mail), telephone calls, Virtual/online meetings, and conference calls. TxDOT will host annual or semi-annual meetings with all covered RTAs to review program requirements and, updates, and provide all involved parties an opportunity to exchange information.

# 1.10 Public Transportation Safety Certification Training Program

The FTA's requirements for the certification and training of federal, state, and other designated personnel who conduct rail safety audits and examinations, as well as rail transit system personnel with direct safety oversight responsibility, are located within 49 CFR Part 672. In addition to PTSCTP training, SSO personnel also complete training requirements stated within TxDOT's Technical Training Plan (TTP).

# **Designation of RTA Staff Directly Responsible for Safety**

In accordance with 49 CFR 672.13, RTAs within the SSO Program's oversight must designate personnel subject to the PTSCTP training requirements, including staff who are directly responsible for safety oversight and contractors assigned to specific safety responsibilities, such as conducting the annual ISR. Each RTA must list designated personnel or positions within their PTASP.

Directly responsible for safety oversight means personnel whose primary job function includes the development, implementation, and review of the RTA's PTASP and/or the SSOA requirements.

# Training Requirements for Designated RTA Staff

As specified in 49 CFR 672, the FTA requires designated RTA staff to complete the following training requirements within three (3) years of their initial designation.

Course Name	Course Length
SMS Awareness	1 hr.
Safety Assurance	2 hrs.
SMS Principles for Transit	20 hrs.
TSSP Curriculum:  - Rail System Safety - Effectively Managing Transit Emergencies - Rail Incident Investigation	36 hrs. 32 hrs. 36 hrs.

# **Evaluation of Prior Certification and Training**

Designated personnel may request the FTA evaluate previous safety training or certifications from other entities to determine whether said training or certifications satisfy the 49 CFR 672 training requirements. Designated staff must coordinate an evaluation of prior training and certifications with the FTA by emailing: <a href="mailto:FTASafetyPromotion@dot.gov">FTASafetyPromotion@dot.gov</a>

# Refresher Training Requirements

Designated RTA staff must complete refresher training every two (2) years, which, must include a minimum of one, (1) hour of safety oversight training. It is the RTA's responsibility to determine

appropriate refresher training requirements, document those requirements within the PTASP, and ensure refresher training is completed.

# Record Keeping

In accordance with 49 CFR 672.21, each RTA must ensure designated personnel enroll in the PTSCTP, create an Individual Training Plan (ITP), and maintain/update the ITP as personnel complete training. Information on PTSCTP requirements and instructions on how to enroll in the PTSCTP and create an ITP are located on the FTA's Transit Safety Training webpage at: https://www.transit.dot.gov/regulationsand-guidance/safety/safety-training

### **SSO Training Requirements**

TxDOT SSO Program Managers and all support contractors are designated staff and therefore must complete the following PTSCTP training requirements within three (3) years of their initial designation:

# Required Curriculum for SSO Designated Staff

Course Name	Course Length
SMS Awareness	1 hr.
SMS-Safety Assurance (VLT)	2 hrs.
SMS Principals for Transit	20 hrs.
SMS Principals for SSO Programs	16 hrs.
Transit Rail System Safety	36 hrs.
Effectively Managing Transit Emergencies	32 hrs.
Transit Rail Incident Investigation	36 hrs.

# Required Curriculum for SSO Designated Staff

Designated TxDOT staff and support contractors may satisfy the refresher training requirement located in 49 CFR 672 Subpart B by attending the FTA's Annual Joint SSO-RTA Workshop or completion of TxDOT's PTSCTP SSO refresher training. TxDOT will document refresher training through a completion certificate or other similar documentation.

# SSO Record Keeping

TxDOT will retain a record of the technical training TxDOT designated personnel complete and retain said record for at least five (5) years from the date the record was created.

# 1.11 Infrastructure Investment and Jobs Act Required Training

In the case of an RTA receiving assistance under section 5307 that serves an urbanized area with a

population of 200,000 or more, the RTA must document within its PTASP and implement a comprehensive staff training program for operations and maintenance personnel, as well as personnel directly responsible for safety of the recipient, including the following elements:

- The completion of a safety training program;
- (II) Continuing safety education and training; and
- (III) De-escalation training; and
- (IV) In the case of a recipient receiving assistance under section 5307 that serves an urbanized area with a population of 200,000 or more, a risk reduction program for transit operations to improve safety by reducing the number and rates of accidents, injuries, and assaults on transit workers based on data submitted to the National Transit Database (NTD) under 49 United States Code (U.S.C) Section 5335.

# 1.12 Risk-Based Inspections

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act (IIJA), which continues the public transportation safety program. The BIL amended 49 U.S.C Section 5329 to require SSOAs to conduct risk-based inspections (RBIs) of the RTAs they oversee. The BIL also added a provision directing the FTA to issue a Special Directive to each SSOA on the development and implementation of RBI programs.

On October 21, 2022, under the authority of 49 U.S.C. Section 5329 (k) and 49 CFR Part 670, the FTA issued Special Directive 22-47 to TxDOT requiring the Department, as the SSOA, to develop and implement an RBI program using qualitative and quantitative data analysis to prioritize inspections to address safety concerns and hazards associated with RTA safety risk.

Special Directive 22-47 requires TxDOT to have an FTA approved RBI program by October 2024. The FTA, through the RBI Toolkit, requires SSOAs to submit their RBI programs for FTA review and approval by May 2024. TxDOT successfully submitted its RBI Program to the FTA in May 2024. FTA approved TxDOT's RBI Program (see Appendix G) on August 7, 2024, and TxDOT has one year to demonstrate at least six months of implementation. TxDOT developed its RBI Program to address the Department's authority and capability to enter and conduct inspections of each RTA, including those that occur with and without advance notice. Additionally, TxDOT's program includes information regarding inspection access to and data collection from each RTA to support its risk- based inspection monitoring and prioritization activities, including data the RTA collects when identifying and evaluating safety risk.

# **Section 2: Program Standard Development**

The TxDOT SSO Program Standard is consistent with the NPTSP and 49 CFR Part 674. The standard includes an explanation of TxDOT's processes for developing, reviewing, adopting, and revising minimum standards for safety, and distributing those standards to the RTAs in Texas. These

processes will provide reasonable opportunities for open and transparent communication, with the expectation that each RTA shall fully implement the TxDOT Program Standard in compliance with both federal and state law.

#### 2.1 **Program Standard Development**

The focus of the Program Standard is to establish and clearly communicate the minimum safety standards established by 49 CFR Parts 672, 673, and 674, the Texas Administrative Code, and FTA SSO program guidance.

This Program Standard was reviewed and discussed with RTAs under TxDOT oversight; with opportunities provided for comment throughout development, including the RTA AE, CSO, and Rail Safety Transit Workers.

# **Program Standard Review and Revision**

Annually, by August 31<sup>St</sup>, the SSO Program Standard will be reviewed and updated, including changes to minimum safety standards. All RTAs will have an opportunity to review and comment on those proposed changes as appropriate and necessary. The PTN Division Director will approve all updates to the SSO Program Standard, on recommendation by the PTN Section Director. By March 15<sup>th</sup> each year TxDOT will report to FTA, in accordance with § 674.27, of changes made to the Program Standard during the preceding twelve months.

#### 2.3 **Program Standard Distribution**

The SSO Program Standard is available electronically for download from the TxDOT website (https://www.txdot.gov/business/resources/rail-safety/state-safety-oversight-program.html). The current version of the Standard will be available for downloading, except when necessary to upload updated versions, or during routine website maintenance activities. Revisions to the TxDOT SSO Program Standard are communicated via email to the RTA AE, CSO, and designated safety transit workers. RTA AE and CSO will receive an electronic version of the Program Standard following each annual update.

# **Section 3: Program Policy and Objectives**

#### 3.1 SSO Agency Policy for RTA Safety

The Mission of the Texas Department of Transportation is Connecting You with Texas. Two overarching goals of the Department related to the SSO responsibility are to *Promote Safety* and to Foster Stewardship.

The Public Transportation Division's focus is to Work with others to provide a safe, reliable network of transportation options for people who use alternatives to driving alone. Additionally, the Division has the responsibility to Perform the FTA State Safety Program Functions.

The Program Standard provides the commitment to actions that TxDOT is authorized and prepared to take to oversee and enforce RTA implementation of the Agency Safety Plans. It was created to establish minimum standards, procedures, and technical assistance for the current RTAs operating within Texas, and those in engineering and construction. As such, the Program Standard communicates expectations, roles and responsibilities of the Department and RTA in carrying out safety requirements of 49 CFR 674.

# SSO Agency Objective for RTA Safety

Each RTA shall comply with all requirements of the Program Standard. At a minimum, each RTA shall:

- Notify appropriate parties of safety events that meet designated thresholds;
- Conduct accident investigations;
- Prepare accident investigation reports;
- Investigate unacceptable hazardous conditions;
- Prepare unacceptable hazardous condition reports;
- Implement a hazard management process;
- Prepare and submit corrective action plans;
- Coordinate hazard management program activities with state oversight;
- Maintain and submit to TxDOT SSO required safety data, including RBI Data.
- Develop annual safety performance targets based on the safety performance measures established under the NPTSP.
- Make submissions to TxDOT and FTA on an annual and as needed basis.

# **Section 4: RTA Minimum Safety Standards**

# **Public Transportation Agency Safety Plans (PTASP)**

Each RTA must have a TxDOT-approved PTASP. Any RTA under construction must have a compliant PTASP 180 days prior to revenue service operations. TxDOT will review each PTASP as described in section 4.4 using the PTASP review checklist provided in Appendix D.

#### **PTASP General Requirements** 4.2

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

(1) The PTASP, and subsequent updates, must be signed by the Accountable Executive and

- approved by the agency's Board of Directors, or an Equivalent Authority.
- (a) For a large urbanized area provider, the Safety Committee established pursuant to § 673.19, followed by the transit agency's Board of Directors or an equivalent entity; or
- (b) For all other transit agencies, the transit agency's Board of Directors or an equivalent entity.
- (2) The PTASP must document the processes and activities related to Safety Management System (SMS) implementation, as required under Subpart C of 49 CFR 673.
- (3) The PTASP must include annual safety performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. Safety performance targets for the safety risk reduction program are only required for large urbanized area providers. NOTE: the RTA must coordinate with their MPO and State to communicate their safety performance measures.
- (4) The PTASP must address all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the NPTSP. 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 PTASP.
- (6) A rail transit agency must include or incorporate by reference in its PTASP Plan:
  - a) 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.
  - b) Any polices and procedures regarding rail transit workers on the roadway the rail transit agency has issued; and
  - c) The transit agency's policies and procedures developed in consultation with the SSOA to provide access and required data for the SSOA's RBI program.
- (7) The PTASP of each large urbanized area provider must include a safety risk reduction program for transit operations to improve safety performance by reducing the number and rates of safety events, injuries, and assaults on transit workers. The safety risk reduction program must, at a minimum:
  - a) Address the reduction and mitigation of vehicular and pedestrian safety events involving transit vehicles that includes safety risk mitigations consistent with § 673.25(d)(3);
  - b) Address the reduction and mitigation of assaults on transit workers that includes safety risk mitigations consistent with § 673.25(d)(4);
  - c) Include the safety performance targets set by the Safety Committee pursuant to §

673.19(d)(2) for the safety risk reduction program performance measures established in the NPTSP. These targets must be set—

- Based on a three-year rolling average of the data submitted by the large urbanized area provider to the National Transit Database (NTD);
- ii. For all modes of public transportation; and
- iii. Based on the level of detail the large urbanized area provider is required to report to the NTD. The Safety Committee is not required to set a target for a performance measure until the large urbanized area provider has been required to report three years of data to the NTD corresponding to such performance measure.
- d) Include or incorporate by reference the safety risk mitigations identified and recommended by the Safety Committee as described in  $\S$  673.25(d)(5).
- e) A transit agency may develop one PTASP for all modes of service or may develop a PTASP for each mode of service not subject to safety regulation by another Federal entity.
- f) A transit agency must maintain its PTASP in accordance with the recordkeeping requirements in subpart E of this part.

# Safety Plan and SMS Documentation Requirements

In accordance with 673.31 Safety Plan Documentation, a rail transit agency, must at all times, maintain documents that set forth its PTASP, including those related to the implementation of its SMS, and results from SMS processes and activities. A transit agency must maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that the transit agency uses to carry out its PTASP. These documents must be made available upon request by FTA or other Federal entity, or a State or State Safety Oversight Agency having jurisdiction. A transit agency must maintain these documents for a minimum of three years after they are created.

# Coordination with metropolitan, Statewide, and non-metropolitan planning processes:

Rail transit agency must make its safety performance targets available to States and Metropolitan Planning Organizations (MPO) to aid in the planning process. To the maximum extent practicable, a rail transit agency must coordinate with States and MPOs in the selection of State and MPO safety performance targets.

Rail transit agencies must state, within their PTASP, their process for State and MPO coordination. Coordination must include the name State and MPO, department or section that the rail transit agency coordinates with, how coordination occurs, timeframes associated with coordination, and how coordination in documented.

# Safety Committees and Cooperation with Frontline Transit Worker Representatives

In accordance with the requirements of 49 CFR Part 673, rail transit agencies must meet requirements based on their designation as a large urbanized area provider. Large urbanized area providers have more requirements than rail transit agencies that are not large urbanized providers.

### **Cooperation with Frontline Transit Worker Representatives:**

Each large urbanized area provider must establish a Safety Committee that meets the requirements of § 673.19.

- (1) Each transit agency that is not a large urbanized area provider must:
  - a) Develop its PTASP, and subsequent updates, in cooperation with frontline transit worker representatives; and
  - b) Include or incorporate by reference in its PTASP a description of how frontline transit worker representatives cooperate in the development and update of the PTASP.

# **Safety Committees:**

Rail transit agencies that are large urbanized area providers must meet all safety committee requirements established by 49 CFR Part 673.19 Safety Committees.

- a. Establishing the Safety Committee.
  - (1) Each large urbanized area provider must establish and operate a Safety Committee that is:
    - (i) Appropriately scaled to the size, scope, and complexity of the transit agency; and
    - (ii) Convened by a joint labor-management process.
  - (2) Each transit agency that is not a large urbanized area provider must:
    - Develop its Public Transportation Agency Safety Plan, and subsequent (i) updates, in cooperation with frontline transit worker representatives; and
    - (ii) Include or incorporate by reference in its Public Transportation Agency Safety Plan a description of how frontline transit worker representatives cooperate in the development and update of the Public Transportation Agency Safety Plan.
- b. Safety Committee membership. The Safety Committee must consist of an equal number of frontline transit worker representatives and management representatives. To the extent practicable, the Safety Committee must include frontline transit worker representatives from major transit service functions, such as operations and maintenance, across the transit system.
  - (1) The labor organization that represents the plurality of the transit agency's frontline transit workers must select frontline transit worker representatives for the Safety Committee.
  - (2) If the transit agency's frontline transit workers are not represented by a labor organization, the transit agency must adopt a mechanism for frontline transit workers to select frontline transit worker representatives for the Safety Committee.
- c. Safety Committee procedures. Each large urbanized area provider must include or incorporate by reference in its PTASP procedures regarding the composition, responsibilities, and operations of the Safety Committee which, at a minimum, must address:

- (1) The organizational structure, size, and composition of the Safety Committee and how it will be chaired:
- (2) How meeting agendas and notices will be developed and shared, and how meeting minutes will be recorded and maintained;
- (3) Any required training for Safety Committee members related to the transit agency's PTASP and the processes, activities, and tools used to support the transit agency's SMS;
- (4) The compensation policy established by the agency for participation in Safety Committee meetings;
- (5) How the Safety Committee will access technical experts, including other transit workers, to serve in an advisory capacity as needed; transit agency information, resources, and tools; and submissions to the transit worker safety reporting program to support its deliberations;
- (6) How the Safety Committee will reach and record decisions;
- (7) How the Safety Committee will coordinate and communicate with the transit agency's Board of Directors, or equivalent entity, and the AE;
- (8) How the Safety Committee will manage disputes to ensure it carries out its operations. The Safety Committee may use the dispute resolution or arbitration process from the transit agency's Collective Bargaining Agreement, or a different process that the Safety Committee develops and agrees upon, but the AE may not be designated to resolve any disputes within the Safety Committee; and
- (9) How the Safety Committee will carry out its responsibilities identified in paragraph (d) of this section.
- d. Safety Committee responsibilities. The Safety Committee must conduct the following activities to oversee the transit agency's safety performance:
  - (1) Review and approve the transit agency's PTASP and any updates as required at § 673.11(a)(1)(i);
  - (2) Set annual safety performance targets for the safety risk reduction program as required at § 673.11(a)(7)(iii); and
  - (3) Support operation of the transit agency's SMS by:
    - (i) Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through the transit agency's safety risk assessment, including safety risk mitigations associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program;
    - (ii) Identifying safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program; and

(iii) Identifying safety deficiencies for purposes of continuous improvement as required at § 673.27(d), including any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

#### 4.3 **Safety Management Systems**

Each transit agency must establish and implement a SMS as required by 49 CFR 673. A transit agency SMS must be appropriately scaled to the size, scope and complexity of the transit agency and include the following elements:

- (a) Safety Management Policy as described in §673.23;
- (b) Safety Risk Management as described in §673.25;
- (c) Safety Assurance as described in §673.27; and
- (d) Safety Promotion as described in §673.29.

# 4.4 PTASP Review by TxDOT

TxDOT will review and evaluate each PTASP for compliance with 49 CFR Part 673, the TxDOT Program Standard, and the NPTSP. At the time the PTASP is submitted for initial approval and for subsequent updates, the RTA will submit referenced materials and supporting procedures to document that 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, inspections, 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.

### **Annual PTASP Review**

No later than October 1<sup>st</sup> each year, each RTA shall conduct a review of its PTASP and notify TxDOT via email if the PTASP is current or requires an update. If the RTA determines the 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.

TxDOT requires each RTA to submit the revised draft PTASP for TxDOT review before seeking approval from the AE and Board. Draft revised PTASPs must be submitted to TxDOT by November 15th. The revised PTASP must be approved by each RTA and submitted to TxDOT no later than January 31st.

# **PTASP Review Sequence and Approval**

 TxDOT will complete the draft PTASP review and provide review comments, including areas requiring revisions, to the RTA within 21 calendar days of PTASP receipt.

- TxDOT and the RTA 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.

### **Modifications to PTASP**

With prior email approval by TxDOT, an RTA can modify and implement processes described within the PTASP prior to the annual PTASP update. An RTA must email their SSO Program Manager with the current section of the PTASP and the proposed changes. TxDOT will review the proposed changes within 10 days and respond with approval or request additional information needed for approval. Upon approval, the RTA may implement the change. The RTA must include the modification within the PTASP at the next update.

#### 4.5 **PTASP Initial Submittals for New Rail Systems**

Each new RTA entering the SSO program shall make submit their initial PTASP and all referenced materials and supporting procedures a minimum of 180 days prior to the target date of pre-revenue operations.

TxDOT will review the initial PTASP submission according to process outlined in Section 4.4. While conducting its initial PTASP review, TxDOT may request additional information, clarifications, or revisions to the PTASP and referenced materials and supporting procedures. Upon approval of the initial PTASP submission TxDOT will issue a formal letter of approval to the AE and CSO.

#### 4.6 **Ensuring Safety in New or Modified Rail Systems**

Each RTA shall ensure safety concerns and impacts are documented, analyzed, and addressed in accordance with TxDOT and RTA policies and procedures for new or modified systems, which may include vehicles, equipment, system extensions, or other areas of change.

# Notification of New Rail System or Modified Rail System

TxDOT requires the RTA CSO or delegate to email their respective SSO Program Manager notification of the RTA's intent to begin a new rail system or modification to an existing rail system. This notification must occur prior to entry into the preliminary engineering phase of a new or modified system project. Upon receipt of notification, the SSO Program Manager will coordinate with the CSO or delegate to ensure TxDOT requirements, including those below, are satisfied.

Projects that require notification to TxDOT include:

- Any area of change that significantly alters a part, component, or subcomponent of the system.
- Any project, including projects implemented by other entities, that may have significant impact of RTA operations and safety.

- New starts or system extensions, expansions, new stations, or rail yards
- Reconstruction of existing lines
- Major redesign and installation of system components
- New or significantly reconstructed maintenance and operating facilities
- New vehicle procurements or major overhauls (e.g., mid-life overhaul)
- Any new or rehabilitative work associated with signals, power, control center, or other safety critical system components
- Major capital project, defined by FTA in 49 CFR Part 633, involving the construction, expansion, rehabilitation, or modernization of a fixed guideway having a total project cost of \$300 million or more and receives \$100 million of federal funds, and is not exclusively for the acquisition, maintenance, or rehabilitation of vehicles or other rolling stock.

# **New or Modified Rail System Requirements**

TxDOT requires RTAs to develop and submit a safety and security certification plan (SSCP) for TxDOT approval for new or modified rail systems. For smaller projects that do not involve preliminary engineering or engineering, RTAs must submit the SSCP prior to commencing the project. For larger projects that follow a traditional project develop phases, TxDOT requires the SSCP to be submitted not later than the end of the preliminary engineering phase. In either case, TxDOT will coordinate with the RTA to reach a mutually agreeable date for the submission of the SSCP.

The SSCP is a scalable, project specific plan which describes the activities the RTA will complete to ensure safety concerns and hazards are adequately addressed prior to the initiation of revenue operations. TxDOT will review the SSCP within 30 days of submission. Common elements found within an SSCP are:

- Project description.
- Certifiable elements list.
- Design criteria are developed to identify specifications that must be met.
- Design Conformance Checklists are completed to verify compliance of the design criteria.
- Integrated tests are completed to verify all systems and components function as intended.
- Operations and maintenance manuals are developed.
- Training is developed and provided to transit operations and maintenance staff.
- Agency staff are trained on rules, procedures, safety, and emergency operations.
- Public safety personnel are familiarized and trained to manage their activities safely.
- Emergency preparedness drills and exercises are conducted.
- Hazard and vulnerability assessments are performed to track and resolve safety concerns.
- PTASP development and approval by TxDOT.
- Safety and Security Certification Verification Report is prepared to document the transit project successfully complies with identified safety and security requirements.

- RTA issued "Certificate of Safety" is completed to verify the project is safe for revenue service.
- Completion of a TxDOT led on-site pre-revenue review.

TxDOT will coordinate with the RTA and provide technical assistance, as needed, during the development of the SSCP. FTA has developed resources such as the Handbook for Transit Safety and Security Certification (November 2002), to provide guidelines and recommendations for the development of safety and security certification plan. The FTA Handbook for Transit Safety and Security Certification is located at: <a href="https://www.transit.dot.gov/regulations-and-quidance/safety/publications">https://www.transit.dot.gov/regulations-and-quidance/safety/publications</a>

# **Coordination During Pre-Revenue Project Implementation**

TxDOT will monitor the RTA's project implementation and compliance with the SSCP by attending project meetings and by conducting on-site review activities and observations. TxDOT's monitoring during this pre-revenue period will evaluate the RTA's readiness for passenger operations and assess the RTA's implementation of its PTASP, SSCP, internal procedures and standards, and TxDOT's Program Standard. On-site meetings and teleconferences may be conducted to address any issues identified during the pre-revenue review period.

# Safety and Security Certification Verification Report (SSCVR)

At least 60 calendar days prior to revenue service or non-revenue/operational use, an RTA must submit a SSCVR to TxDOT for review.

The SSCVR is the final report verifying that the project complies with all safety requirements identified by the agency's SSCP. The SSCVR shall contain:

- Executive summary of the project status
- Summary of Activities Performed:
  - Certifiable items list
  - o Completed conformance checklists and certificates
  - o Integrated testing results
  - o Updated manuals, SOPs, and procedures
  - o Operations and maintenance training
  - o Hazard Assessments, including associated hazard logs
- List of open items or logs, restrictions, and hazards, and the plan, including actions required,
   responsibility, and schedule for resolving open items, restrictions, and hazards
- Certificate of Safety verifying project is safe for revenue service.

### **TxDOT Concurrence**

TxDOT will review the SSCVR within 30 days to determine project conformance with the SSCP and PTASP, and to assess if the RTA is compliance with TxDOT requirements. During the review period, TxDOT may conduct readiness review activities including on-site reviews, observations, meetings, and teleconferences. Additional information, documentation, or clarification may be requested by TxDOT

before concurrence is provided. At the conclusion of the review period, TxDOT will provide a letter of concurrence to the CSO stating the project has satisfied TxDOT SSO requirements.

# 4.7 RTA Internal Safety Reviews

Each RTA shall develop and implement a process for the performance of on-going internal safety reviews (ISRs) in compliance with 49 CFR 673.27(d). The internal safety review evaluates the following:

- Effectiveness of RTA PTASP implementation
- Identification of deficiencies in the RTA's SMS
- Identification of deficiencies in the transit agency's performance against safety performance
- For large urbanized area providers, the ISR must also address the role of the RTA's Safety Committee, and include the identification of deficiencies in the transit agency's performance against annual safety targets.

At the discretion of TxDOT, TxDOT employees, or contractors may observe the review onsite.

Each RTA shall develop and annually submit to TxDOT, for approval, a review package which addresses the areas of the PTASP over a three-year cycle. This review package shall be submitted in time to receive TxDOT approval not less than 60 days prior to conducting the ISR. The review package shall include the following information:

- Identify the departments, employees, and contractors responsible for scheduling, managing, and conducting the annual review;
- PTSCTP Certification for personnel conducting the internal safety review;
- Identify the departments and functions subject to review;
- At a minimum, the annual approval package shall identify the RTA personnel participating in the review, contact information, interview schedules, and a listing of the on-site audit locations;
- Develop templates, checklists, and procedures for conducting the ISR. These materials shall include sufficient criteria to determine if all audited elements are implemented as intended.

# **RTA Internal Safety Review Package Approval Sequence**

- RTA submits ISR packet at least 60 days before the planned ISR date.
- TxDOT will review and provide comments to the RTA within 10 business days.
- In the event revisions are needed, TxDOT and the RTA will reach a mutually agreeable date for the resubmission of revised items. Upon receipt of the requested revision the review process will continue.
- TxDOT approval of the ISR packet will be made via a formal letter to the CSO.

# **RTA Internal Safety Review Report**

Each RTA shall submit the ISR final report to TxDOT within 60 days of the closeout meeting. In no case

shall the RTA submit the ISR final report later than February 1<sup>St</sup>.

TxDOT requires the following two items to be submitted by the above referenced deadlines:

- 1. A formal letter signed by the RTA's AE, that:
  - certifies the RTA is in compliance with its agency safety plan, or
  - states the RTA, as indicated through the ISR final report, is not in compliance with its agency safety plan. If the RTA cannot certify compliance, then this letter must specify each noncompliance issue, the activities that the RTA will take to achieve compliance, the date that those activities will be completed, and the projected date that compliance will be achieved.
- 2. The ISR final report, must contain the following content:
  - A listing of the safety elements conducted during the calendar year;
  - Identification of the departments and functions reviewed;
  - An update of the RTA' three-year schedule ISR schedule;
  - Findings of noncompliance and recommendations as applicable

All findings shall be tracked by the RTA until closure.

# **Section 5: Triennial SSO Agency Audits**

#### 5.1 **SSOA Triennial Audit Schedule**

At least once every three years, TxDOT shall conduct a Triennial Audit of the RTA's implementation of its PTASP. The triennial is considered conducted as of the date TxDOT holds an audit exit debrief with the RTA. It will be at TxDOT's discretion whether the Triennial Audit will be conducted as a single onsite assessment or in an on-going manner over the three-year cycle.

#### **SSOA Triennial Audit Activities** 5.2

TxDOT, or its designated contractor, will prepare the audit checklists based on the RTA's PTASP and supporting procedures, records, and plans. Verification of checklist items will occur, but not limited to, through interviews, document reviews, data analysis, field observations, testing, measurements, spot checks, and demonstrations provided by the RTA transit workers and contractors. To assess compliance with the agency's safety program the audit team will sample accident reports, internal review reports, documentation from the RTAs safety risk management Program, SMS Implementation, and corrective action plans in relation to 49 CFR Part 674 and the TxDOT SSO Program Standard. The audit team may also use Drug and Alcohol Audits, Triennial Reviews, and Safety and Security Readiness Reviews to support its assessment of compliance in areas previously investigated and audited by FTA.

Whether TxDOT conducts the Triennial Audit as a single on-site assessment or in an on-going manner over the three-year cycle, the following steps will be employed by TxDOT and its contractors before, during, and after the audit.

# **Triennial Audit Planning and Coordination**

- Notify RTA AE and CSO of intent to conduct Triennial Audit.
- Coordinate with the RTA safety points of contact to develop the audit schedule no less than 60 calendar days before the audit is scheduled;
- Finalize the interview schedule in coordination with the RTA points-of-contact, no less than 30 calendar days prior to the audit;
- Designate a TxDOT audit team leader and team members;
- Prepare an audit plan that includes all elements identified in the RTA's PTASP and supporting documents and procedures;
- Request and review RTA safety documents;
- Prepare audit checklists and templates based on the RTA's PTASP and supporting documents prior to the on-site audit;
- Identify methods of verification appropriate to each checklist item.

# **Conducting the Triennial Audit**

- Conduct an entrance meeting with the RTA AE, Operations management, Maintenance management CSO, and Rail Safety Transit Workers;
- Conduct interviews with appropriate RTA transit workers and contractors;
- Evaluate documents and data maintained on-site;
- Observe on-site operations and maintenance activities of the RTA;
- Take measurements and conduct spot checks as appropriate;
- Rate checklist items for compliance;
- Conduct an exit debriefing with RTA management at the conclusion of the audit to provide an overview of initial findings and observations.

# **Triennial Audit Report Shall**

- Cite authority and purpose of the audit;
- Evaluate the implementation of the PTASP and supporting procedures;
- Identify findings which shall be addressed by the RTA;
- Make recommendations to the RTA to update its PTASP and supporting procedures.

# **Final Report Submission and Audit Closeout**

- TxDOT will issue a draft audit report within 60 calendar days of the completion of the on-site audit and submit to the RTA for review and comment;
- RTA shall submit comments within 30 calendar days of receipt of draft triennial audit report.
- TxDOT will issue triennial audit report within 15 calendar days of receipt of RTA draft report comments.

- RTA must develop CAPs to address findings within 30 calendar days of report issuance;
- TxDOT will review RTA proposed corrective action plans within 30 calendar days of receipt;
- TxDOT will monitor RTA's progress on implementing CAPs and closing the audit findings;
- TxDOT will notify the RTA when all findings have been addressed and the audit is closed.

#### **SSO Agency Triennial Audit Report** 5.3

TxDOT shall issue a Triennial Audit which shall include, at minimum, findings of noncompliance, recommendations, and analysis of the effectiveness of the PTASP and supporting documentation and procedures.

Findings will be issued for areas in which the RTA is not in compliance with federal and state requirements or the PTASP policies or procedures.

Recommendations can include areas that, while in compliance with applicable requirements and standards, may be improved based upon the review team's professional judgment and knowledge of best practices. Recommendations do not require a corrective action plan.

# **Section 6: Safety Event Definitions and Notification** Requirements

#### 6.1 FTA and SSO Accident Notification Requirements and Method

The RTA is required to notify the FTA and TxDOT within two (2) hours of any accident occurring on a public transportation system that meets one or more of the following criteria (§ 674.39(b)):

- A loss of life;
- A report of a serious injury to a person;
- A collision involving at least one rail transit vehicle at grade crossing, with a person, or with an object that results in substantial property damage, serious injury or fatality. (See below for substantial damage and serious injury criteria)
- A runaway train;
- An evacuation due to life safety reasons. (See below for evacuation criteria)
- Any derailment of a rail transit vehicle, at any location, at any time, whatever the cause.

NOTE: The two-hour window starts at the time the accident occurred.

FTA, in its Two-Hour Accident Notification Guide (Appendix F), issued September 2021, further clarified that RTAs are required to provide two-hour notification of all collisions involving two or more rail transit vehicles, and all collisions involving at least one rail transit vehicle at grade crossing, with a person, or with an object that results in substantial property damage, serious injury or fatality.

**Substantial damage** is defined as 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, on-site maintenance, or immediate removal prior to safe operation.

Note: Towing of a personally operated vehicle does not automatically mean an event is reportable to the SSO as an accident. For example, a vehicle may be towed at the driver's request or because the driver is arrested by police. In both examples, the car was towed but not because of substantial damage.

### **Serious injury** means any injury which:

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

An evacuation for a life safety reason occurs when a person departs from a transit vehicle or facility due to a threat to their life or limb. A life safety reason may include, but is not limited to, a fire, the presence of smoke or noxious fumes, a fuel leak, a vehicle fuel leak, an electrical hazard, a bomb threat, discharge of a weapon, a suspicious item, or other situation that constitutes a potential danger. An evacuation for a life safety reason may be transit-directed or passenger self-evacuations.

Evacuations of vehicles or facilities are reportable even if the event is off property. For example, a security event such as a shooting on adjacent property can trigger an evacuation for a life safety reason. Similarly, a bomb threat, gas leak, or fire on adjacent property may also cause an evacuation for a life safety reason.

As clarified by FTA in their September 2021 Two-Hour Accident Notification Guide, RTAs are not to provide two-hour notifications due to mechanical breakdown, loss of power, track obstructions, or any other situation that does not involve a potential danger to life safety.

RTA staff must use their best judgment in determining if an evacuation for a life safety reason occurred. If unsure, RTAs are advised to provide an initial two-hour notification to TxDOT and FTA.

# 6.2 Accident Notification Procedure

The RTA must provide the two-hour initial accident notification to FTA by contacting the U.S. DOT Transportation Operations Center (TOC) by email or phone:

EMAIL:	TOC-01@DOT.GOV	TxDOT SSO Program Manager MUST be copied on all FTA
(preferred)		notifications sent via email.
PHONE:	(202) 366-1863	The date and time of the phone call must be documented

# FTA notifications must include:

- Summary of the event
- Location
- Number of fatalities
- Number of serious injuries (include type of injury if known)
- Primary and secondary event types (e.g., collision, derailment, fire, etc.)
- Point of contact for follow-up inquiries

The RTA must also report the accident to TxDOT using the SSO Tracker reporting system within the two (2) hour reporting requirement. The SSO Tracker reporting system allows RTAs to complete the accident notification three different ways, which include the SSO Tracker App, SSO Tracker Website, and the SSO Tracker Public Webform.

In effort to monitor compliance with the 2-hour notification requirement, TxDOT SSO will closely monitor and track safety event notifications. In an instance in which a RTA misses the notification timeframe, TxDOT will require the RTA to develop a CAP to address the cause of the late report. In addition to the required CAP when a 2-hr notification is late, TxDOT will send a letter to the CSO for first late notice, then from the Division Director to the AE for second late notice in a calendar year. Subsequent late notices will result in meetings between Division and RTA leadership and may include escalated enforcement actions in accordance with the Program Standard and the TAC.

In the event of reporting difficulties entirely out of the control of the RTA, agencies may notify TxDOT through a telephone phone or email notification to the SSO Program Managers and the corresponding SSO support services contractor.

### The SSO Program Manager are listed below:

- Carter Sieber: <u>carter.sieber@txdot.gov</u> or (512) 486-5961
- Eric Rangel: <u>Eric.Rangel@txdot.qov</u> or (512) 416-3217

Phone or email notifications must meet the two-hour notification requirement, and must include a summary of the event, location, injuries or fatalities, and a point of contact. In addition, an RTA must complete an SSO Tracker notification with 24 hours of issue resolution for any notifications made through phone or email.

Please refer to the SSO Tracker User Manual for detailed instructions on using the SSO Tracker system: www.txdot.gov/inside-txdot/division/public-transportation/state-safety-oversight.html

# 6.3 Non-Reportable Safety Events

TxDOT recognizes events that an RTA initially thought to be SSO reportable may turn out to not be SSO reportable. An RTA must update both FTA and TxDOT when the RTA discovers an event no longer meets the definition of an accident.

# 6.4 Incident and Occurrence Tracking and Reporting

Rail agencies shall report incidents to FTA via the National Transit Database (NTD) within 30 days. Please refer to the Title 49 U.S.C. 5335(a) for additional NTD regulatory requirements. Incidents are defined as:

- A personal injury that is not a serious injury;
- One or more injuries requiring medical transport, damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a rail transit agency.

Occurrences shall be tracked by the RTA and made available to TxDOT and to FTA for review, as requested. Occurrences are defined as:

- an event without any personal injury
- damage to facilities, equipment, rolling stock, or infrastructure that does not disrupt the operations of an RTA.

# 6.5 FRA Notifications

In accordance with 49 C.F.R. § 674.33(b), in any instance in which an RTA must notify the FRA of an accident as defined by 49 CFR Part 225.5 (i.e., shared use of the general railroad system track or corridors), the RTA must also notify TxDOT and FTA of the accident within the same time frame as required by the FRA.

# 6.6 Other Federal Agency Notifications

Additional notifications to federal agencies may also be required. The RTAs may be required to notify National Transportation Safety Board (NTSB) or TSA for events listed in 49 CFR Part 840 (see below) and 49 CFR Part 1580. For all notifications to other federal agencies (FRA, NTSB, and TSA), the TxDOT SSO Program requires that the RTA share those notifications and any additional information requested by those other federal agencies.

49 CFR Part 840.3 requires the operator of a railroad shall notify the Board by telephoning the National Response Center at telephone 800-424-0201, at the earliest practicable time after the occurrence of any one of the following railroad accidents:

- a. No later than 2 hours after an accident which results in:
  - A passenger or employee fatality or serious injury to two or more crewmembers or

passengers requiring admission to a hospital.

- The evacuation of a passenger train; or
- A fatality at a grade crossing.
- b. No later than 4 hours after an accident which does not involve any of the circumstances listed above, but which results in:
  - Damage (based on a preliminary gross estimate) of \$150,000 or more for repairs, or the current replacement cost, to the railroad and nonrailroad property.
  - Damage of \$25,000 or more to a passenger train and railroad and nonrailroad property.

# **Section 7: Accident Investigations**

# 7.1 Accident Investigation Process

TxDOT must investigate, or cause to be investigated, at a minimum, any accident meeting the notification thresholds identified in the Program Standard Section 6, Safety Event Definitions and Notification Requirements. The FTA Administrator may conduct an independent investigation of any accident or a review of an SSOA's or an RTA' findings of causation of an accident. TxDOT will support the Administrator's independent accident investigation or findings and recommendations resulting from an independent investigation. TxDOT will evaluate whether the findings or recommendations by the FTA require a corrective action plan by the RTA. If so, TxDOT will require the RTA to develop and carry out a corrective action plan. TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT will support external investigations conducted by the NTSB or the FTA.

# **Independent TxDOT Investigations**

TxDOT, at its discretion, may choose to conduct an independent investigation of any event meeting the thresholds specified in Program Standard Section 6.1, FTA and SSOA Accident Notification Requirements and Method.

TxDOT will notify the RTA as to the personnel who will be conducting the independent investigation and provide a preliminary schedule as to the investigation process. TxDOT personnel and contractors, certified in the Public Transportation Safety Certification Program, are granted authority under the SSO program to conduct an investigation and evaluate records, materials, data, analysis, and other information that is pertinent to the investigation. The TxDOT investigation team will incorporate the American Public Transportation Association (APTA) Standard for Rail Transit Accident/Incident Investigation (APTA RT-OP-S-002-02 Rev 3) operating practice as applicable. The RTA will provide to the TxDOT investigation team the resources and information necessary to conduct the investigation in an effective and efficient fashion. The TxDOT investigation report will be submitted to the RTA within

45 days of the completion of the investigation. If the RTA disagrees with TxDOT's investigation, then the RTA may submit a written dissent from the report, which TxDOT will include in the final investigation report, The RTA must submit their dissent via email to their SSO Program Manager within 15 days of TxDOT's completion of the investigation report.

### **National Transportation Safety Board Investigations**

The NTSB is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in the other modes of transportation including railroad, highway, marine, and pipeline and issuing safety recommendations aimed at preventing future accidents.

The NTSB is responsible for the investigation; the determination of facts; the cause or probable cause; and recommendations to reduce the likelihood of recurrence. TxDOT will support the NTSB as a member of its Party System. The RTA shall be responsible for timely briefing of TxDOT on all activities including meetings, interviews, requests for data, functional testing, examination of equipment, and the results of drug and alcohol tests. The RTA shall provide TxDOT with a copy of all written correspondence to the NTSB and shall provide a copy of all NTSB reports and any recommendations concerning the event or its investigation, upon receipt by the RTA. TxDOT will assist the NTSB by providing information requested about the RTA practices and other matters as appropriate. TxDOT is authorized to participate in any discussions and reviews with the RTA and NTSB. TxDOT will evaluate whether the findings or recommendations by the NTSB require a corrective action plan by the RTA. If so, TxDOT will require the RTA to develop and carry out a corrective action plan.

# 7.2 Accident Investigation Procedures

TxDOT has authorized each RTA to conduct the on-site investigation on its behalf and reserves the option to participate in the investigation process. All personnel and contractors that conduct investigations on behalf of TxDOT shall be trained to perform their functions in accordance with the PTSCTP. The RTA shall use accident investigation procedures approved by TxDOT. The accident investigation procedures shall adequately address the necessary activities to discern root cause and contributing factors and be procedurally oriented so as to not allow supposition or conjecture during the investigation. The procedures shall succinctly describe the roles and responsibilities of each RTA department, such as safety, operations, and transportation, during the on-scene investigation as well as define the process for completing and issuing the final report to TxDOT for review and adoption. Subsequent updates and revisions to the accident investigation procedures shall be submitted to TxDOT for approval.

TxDOT's Review Process for RTA's Accident Investigation Procedures:

- TxDOT will complete a review within 30 calendar days
- After the review period, TxDOT will provide review comments to the RTA; including areas that require revisions to achieve compliance. TxDOT may also include best practice

recommendations with review results.

- TxDOT will work with the RTA to establish a mutually agreeable timeline to receive procedures which have incorporated TxDOT's requested revisions.
- Upon approval, TxDOT will send an approval letter via email to the CSO.

#### 7.3 **Accident Investigation Report**

Each RTA accident investigation conducted by the RTA on behalf of TxDOT must be documented in a final investigation report that includes a description of investigation activities, findings, identified causal and contributing factors, and a corrective action plan if necessary. The final investigation report shall be submitted to TxDOT, through SSO Tracker system, within 30 days of the occurrence of the accident. On a case-by-case basis, SSO Program Managers may grant extensions to the accident investigation due dates. Such extensions are coordinated between TxDOT and RTA through email or phone, and formally documented within the SSO Tracker system as part of the accident investigation report. Please refer to the: SSO Tracker User Manual for detailed instructions on using the SSO Tracker to submit an accident investigation report. The SSO Tracker User Manual is located on the TxDOT SSO Program webpage at: www.txdot.gov/inside-txdot/division/public-transportation/state-safetyoversight.html

At any time during an investigation, the RTA shall be prepared to provide a written briefing on the known circumstances of the event and status of their investigation activities. The final investigative report must include supporting investigation documentation. This may include, but is not limited to, video, digital pictures, police reports, supervisor reports, accident scene diagrams, maintenance and inspection records, drug and alcohol decision forms, fitness for duty information, operator hours of service and internal testing reports including assessments and analyses. At TxDOT's discretion, accident documentation, data, or video may be required for submission as part of the accident investigation report.

No later than 30 calendar days after the RTA's submission of the final accident investigation report, TxDOT will review the report using the TxDOT Accident Investigation Review Checklist (Appendix E). The review will ensure the submitted investigation report is complete, accurate, reasonable given the accident circumstances, is compliant with the RTA accident investigation procedures, includes a description of investigation activities, findings, identified causal factors, and, if necessary, provides a CAP.

If questions arise during the investigation review, TxDOT will seek clarification from RTA staff responsible for the investigation. Upon receipt of clarification or correction TxDOT will complete the accident investigation review. After the conclusion of the review, and resolution of questions or concerns, TxDOT shall adopt the RTA's accident investigation and close the investigation in the TxDOT SSO Tracker System.

In the event TxDOT and the RTA cannot reach agreement on the investigation report content or conclusions, TxDOT may issue its own accident investigation report consistent with the process described in the Independent TxDOT Investigations section of this chapter.

# 7.4 SSO and NTD Safety Event Reconciliation

No less than quarterly, TxDOT will compare and reconcile past accident data reported within the SSO Tracker System to RTA accident data reported to the National Transit Database (NTD). TxDOT completes the reconciliation using FTA's State Safety Oversight Reporting System (SSOR System). The SSOR System is a web-based data reporting system that is linked to the NTD. Any rail-related accidents, as defined by 49 CFR 674, reported by the RTA to the NTD are displayed in the SSOR system.

The data reconciliation review will ensure the RTA's accident investigation data submitted to both TxDOT, through the SSO Tracker system, and FTA, through the NTD, match. Examples of common issues discovered by a reconciliation review include errors in the number or type of injuries reported, the event time or location, and late notifications.

No later than 15 days after the end of quarter, TxDOT will complete the reconciliation review and inform each RTA of the results. If data revisions are required, the SSO Program Manager and/or the SSO support contractors will state which safety event requires revision and why a revision is warranted. TxDOT may require a corrective action plan if the safety event reconciliation indicates non-compliance with accident reporting requirements.

# **Section 8: Hazard Management**

# 8.1 RTA Safety Risk Management

Each RTA shall document in the PTASP a safety risk management process to identify and resolve hazards including, but not limited to, those reported, discovered, or observed during engineering, construction, operations, maintenance, and modification of the rail system. An RTA's hazard management process must encompass all hazardous conditions encountered by any department of the agency, and any process that could result in the detection of hazardous conditions.

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

Each RTA's hazard management process must document in the PTASP the following requirements:

- Define the RTA's approach to system-wide hazard management
- Identify all committees, working groups, and task forces involved in hazard management.

- Describe hazard identification methods and processes, which must address change management processes to identify and assess changes that may introduce new hazards.
- Explain how hazards are assessed and prioritized for control or elimination.
- Describe how hazards are documented and tracked.
- Define minimum thresholds requiring notification to TxDOT.
- Explain how the RTA and TxDOT coordinate on hazardous conditions.

#### **RTA Hazard Identification and Risk Assessment** 8.2

RTAs may use a variety of methods to identify hazards encountered anywhere on the system, from any source, and through any process or activity.

Activities and processes that identify hazards include, but are not limited to, RBI, transit worker reporting programs, safety violation allegations, safety officer observations, internal safety reviews, contractor reviews, engineering assessments, data analyses, event investigations, after action reviews, inspections, and passenger reports or complaints. Hazard reporting may also be received from external sources including TxDOT, FTA, FRA, and the NTSB. Hazards received from external entities will be documented and managed in compliance with the safety risk management processes documented within the PTASP.

Each RTA must define their methodology to investigate and assess hazards to understand pertinent details, determine probability and severity, and prioritize for control or elimination. Assessment methods such as the Military Standard 882 is commonly used in the transit industry. Whichever approach is selected, the RTA shall document, within the PTASP, the method and processes for hazard identification, safety risk assessment and safety risk mitigation. TxDOT encourages each RTA to reflect its genuine practices rather than idealized techniques.

#### 8.3 **RTA Management of Hazards**

# **Notifying TxDOT of Unacceptable Hazards**

TxDOT requires hazardous conditions assessed as "unacceptable" by the RTA to be reported to TxDOT within 24 hours using the SSO Tracker system and managed in coordination with TxDOT.

An unacceptable hazard is a hazard assessed by the rail transit agency as the most serious or highest rating when using the RTAs assessment methodology. Within the PTASP, RTAs must state what constitutes an unacceptable assessment rating that requires notification to TxDOT.

TxDOT will review hazard notification reports and follow-up with the RTA with any questions or concerns related to the reported hazard.

Please refer to the SSO Tracker User Manual for detailed instructions on using the SSO Tracker system to submit an initial hazard notification and final hazard report. The SSO Tracker User Manual is located on the TxDOT SSO Program webpage at:

www.txdot.gov/inside-txdot/division/public-transportation/state-safety-oversight.html]

# RTA Management of Hazards Not Requiring Reporting to TxDOT

Hazards that do not meet the RTA's threshold for reporting to TxDOT as an unacceptable hazard must be documented, tracked, managed, and if necessary, mitigated in compliance with each RTA's safety risk management processes described within the PTASP.

TxDOT will coordinate with each RTA on hazards not requiring reporting to TxDOT through periodic hazard log reviews and hazard data reviews as described with section 8.6 of this chapter.

#### **Hazard Corrective Action Plan** 8.4

All "unacceptable" hazards reported to TxDOT must be addressed by the RTA with a CAP managed in coordination with TxDOT.

The CAP must describe the actions the RTA will take to control or eliminate the hazard identified, the schedule for taking action, and the individuals or department responsible for taking those actions.

TxDOT may choose to participate in the RTA's process to assess and resolve hazardous conditions identified by the RTA. If warranted, TxDOT shall order the RTA to develop and carry out a CAP or modify a proposed corrective action plan. If the RTA disputes TxDOT's decision related to a corrective action plan, the RTA may appeal TxDOT's decision as outlined with Section 9: Corrective Action Plans. For information on the CAP process, including preparation, submission, TxDOT approval, and the appeal requirements, please refer to Section 9: Corrective Action Plans.

#### 8.5 **Final Hazard Report**

Following the implementation of a corrective action plan, the RTA must provide a final hazard report within the SSO Tracker system. The final report shall include a re-assessment of the hazard after implementation of a CAP according to the RTA's Hazard Assessment methodology, and a summary of the hazard investigation. RTAs are encouraged to include attachments such as analyses, assessment reports, committee minutes, or photographs as part of the final hazard report.

TxDOT will review final hazard reports, including the re-assessment and report attachments, and inquire with the RTA if questions arise. TxDOT will also review the corrective action plan within the SSO Tracker system to ensure the corrective action plan has been managed according to RTA and TxDOT requirements.

### Monitoring of RTA Hazards and Safety Risk Mitigations 8.6

On a monthly basis, TxDOT will require each RTA to submit a consolidated hazard log or equivalent documentation for hazards discovered during the previous month and hazards that remain open. Equivalent documentation may include any format that communicates the TxDOT required hazard information as described within this section.

The log must contain hazards encountered by all departments of the agency, and any source including but not limited to, transit worker reporting program, safety officer observations, internal reviews, contractor reviews, analyses, and investigations, hazards identified from SSO personnel, passenger complaints, after action reviews of safety events, and safety concerns identified through safety data reviews.

In addition to RTA discovered hazards, TxDOT places an emphasis on RTAs detecting, documenting, analyzing, and mitigating risk that may be experienced at a regular frequency. To ensure that each RTA notifies TxDOT of all hazards affecting rail safety, each RTA shall, on monthly hazard log submissions, include a summary of the preceding months hazardous conditions that meet the criteria listed below:

- 1. Unexpected service shutdown for all or a portion of the rail system due to a safety-related reason or hazard including:
  - a. infrastructure damage,
  - b. cyber-security or ransomware attack,
  - c. severe weather, or local, state, or federally declared disasters.
  - d. infectious disease or public health reasons,
- 2. Near-misses or close-calls
  - a. Any situation with no property damaged and no injuries, but where, given a slight shift in time or position, damage or injury could have occurred.
- 3. Transit Worker or Contractor non-compliance with rules and procedures including:
  - a. Signal violation or overruns
  - b. Wrong/unintended route selection
  - c. Improper rail vehicle door opening (e.g., wrong side, while moving, etc)

The hazard log, including hazardous condition data, must contain, at a minimum, the following information:

- Date hazard discovered or occurred
- Summary or description of hazard, including location.
- Hazard assessment including probability and severity
- Responsible RTA department or transit worker tasked with resolving the hazard
- Safety risk Mitigations (actions to improve safety by lessening risk)
- Status of hazard resolution (open or closed)

TxDOT will complete a review of the hazard log within 15 calendar days of each hazard log submission and will follow-up with the RTA's CSO if questions arise. TxDOT's hazard log review will focus on communication on RTA's internal hazards, and coordination as each RTA implements their safety risk management processes. TxDOT may require a corrective action plan if the hazard log review indicates non-compliance with hazard management requirements.

### **Section 9: Corrective Actions**

RTA's will coordinate with TxDOT on the management of the RTA's CAPs. The SSO Tracker system is the required method for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs.

Please refer to the SSO Tracker User Manual for detailed instructions on using the SSO Tracker system to submit corrective action plans. The SSO Tracker User Manual is found on the TxDOT SSO webpage at: https://www.txdot.gov/inside-txdot/division/public-transportation/state-safety-oversight.html

### 9.1 **CAP Development**

RTAs shall develop and implement CAPs to address risks, hazards, and findings identified through investigations, the hazard management process, audit findings, internal safety review findings, and instances of non-compliance with federal and state requirements or the PTASP policies or procedures.

A CAP shall describe the actions the RTA will take to minimize, control, correct, or eliminate identified risks and hazards, the schedule for taking those actions, and the individual(s) and or department(s) responsible for taking those actions.

In any instance in which a safety event on the rail system is the subject of an investigation by the NTSB or FTA, TxDOT will evaluate whether the findings or recommendations require a CAP. If warranted, TxDOT shall order the RTA to develop and carry out a CAP.

Each RTA shall develop CAPs for the following:

- Results from safety event investigation in which identified causal and contributing factors are determined by the RTA or TxDOT as requiring corrective actions. Examples may include, but are not limited to, operator retraining in the event of human error, developing, or revising a policy or procedure, or repair or corrective maintenance in the event equipment failure, damage, or poor maintenance;
- Findings of non-compliance identified through RTA safety reviews or audits;
- SSO reportable hazards identified through the RTA hazard management process;
- Findings from the Triennial Audits and targeted safety audits performed by TxDOT;
- RTA risk assessments.

### 9.2 **CAP Submission**

RTA's will submit CAPs through the SSO Tracker system within 30 calendar days of discovering an issue requiring corrective action or TxDOT's notification to the RTA that a CAP is required. Depending on the complexity of the issue, and at TxDOT's discretion, additional time may be granted to prepare the CAP. TxDOT must review and approve all proposed corrective actions before the RTA 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 RTA CAP notification shall contain the following:

- Source of the CAP,
- Location, if applicable,
- Summary of issue requiring corrective action,
- Proposed corrective actions,
- If the CAP is an immediate or emergency corrective action,
- Date the issue requiring corrective action was discovered,
- Estimated start date,
- Estimated completion date, and
- Responsible Party and department(s) responsible.

TxDOT will review and approve both regular and emergency/immediate CAPs in accordance with the following section.

### 9.3 TxDOT Review and Approval of Proposed Corrective Action **Plans**

TxDOT will notify the RTA of its approval or rejection of a CAP within 30 calendar days of receipt. In the event TxDOT rejects a CAP, TxDOT will state its reasons in writing and recommend revisions. The RTA shall submit a revised CAP to TxDOT no later than 14 calendar business days following the rejection. TxDOT will work with the RTA to resolve any disputes relating either to the development or execution of the CAP or the findings of an investigation. In the event of a dispute concerning TxDOT's decision related to a CAP, no later than 30 calendar days after receipt of the written decision, the RTA may request an on-site meeting or conference call with the TxDOT SSO Program Manager and PTN leadership to discuss the proposed CAP. The goal of these discussions is to reach agreement on the CAP in dispute. The RTA may request an Administrative Review as specified in 43 TAC 7.93 to appeal the rejection or approval of a CAP. The Administrative Review will be decided by the TxDOT Executive Director or Deputy Executive Director and will be the final decision regarding the CAP.

### 9.4 Verification of CAP Implementation and Closure

RTAs may implement the corrective action plan once TxDOT approval is received. During CAP implementation, any significant changes to the approved CAP must be discussed with the SSO Program Manager or support contractor by telephone or email for approval. Upon SSO approval of proposed changes, the RTA must update the CAP within the SSO Tracker system. Significant changes may include changes to the identified actions, person, or departments responsible for implementation or completion date.

The RTA must request TxDOT to close the CAP once identified actions have been fully implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan, all required fields within the SSO Tracker are completed, and that evidence of CAP implementation is uploaded within the system. TxDOT will close the CAP upon verifying its implementation. TxDOT may also use site visits, RTA interviews, and documentation review to verify CAP implementation. Documentation may include, but not limited to: construction records, safety committee reports, standard operating procedures; training plans; training records, rule books, and bulletins; hazard management plan; maintenance procedures; emergency response plans and agreements; rules compliance programs; or independent assessment.

Upon verification and acceptance by TxDOT, the SSO Program Manager will close the CAP.

### 9.5 Monitoring of Open Corrective Action Plans

The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time. RTAs must ensure all CAP information within the system is kept up to date. Should TxDOT develop concerns regarding the RTA's management of open CAPs then these concerns will be addressed through communication with the RTA's staff responsible for CAP management.

### **Section 10: Escalation of Enforcement Action**

The escalation of enforcement action may be used if a RTA fails to comply with a corrective action plan, administrative action notification, or an emergency order.

### 10.1 Escalation of Enforcement Action

In instances of violation of federal or state regulation, TXDOT may initiate an administrative action; beginning with a written notification of violation provided to the RTA. The notification will specify violations, administrative actions to be taken by TXDOT, compliance action needed to address the violation, and information concerning administrative review of TXDOT's determination should the RTA disagree with the notification.

The RTA shall submit documentation to TXDOT to demonstrate compliance with the requested actions needed to address the violation or request administrative review to appeal TXDOT's determination. TXDOT will make a final determination of the appeal within 60 calendar days of receipt of the appeal.

Failure to act as required will lead to escalation of enforcement action, which may include TXDOT rescinding approval of the RTA's agency safety plan, issuance of an emergency order to address imminent public safety and seeking a temporary injunction to enforce emergency orders.

Complete information on the Administrative Actions, Administrative Review, and Escalation of Enforcement Action may be found in the Texas Administrative Code, Chapter 7, Subchapter E. - Rail Fixed Guideway System State Safety Oversight Program.

# **Appendix A**

Definitions



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

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

Assault on a transit worker means, as defined under 49 U.S.C. 5302, 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.

Audit means a review or analysis of records and related materials, including, but not limited to, those related to financial accounts.

Commission means the Texas Transportation Commission.

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

Consultation means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters.

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

Department means the Texas Department of Transportation.

Derailment means an event where one or more wheels of a rail transit vehicle unintentionally leaves the rails.

Directly responsible for safety oversight means personnel whose primary job function includes the development, implementation, and review of the agency's safety plan, and/or the SSOA requirements for the rail fixed guideway public transportation system.

Fatality means a death occurring at the scene or within 30 days of the accident.

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

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

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

*Inspection* means a physical observation of equipment, facilities, rolling stock, operations, or records for the purpose of gathering or analyzing facts or information.

Inspection data means data that includes, but is not limited to, inspection records and report forms, records of failures and defects with severity, records of speed restrictions, including the reason for applying, incident and safety risk mitigation verification, adherence to inspection schedules, including reports/documentation of inspections not performed, and capital project schedules and progress.

*Investigation* means 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.

Large urbanized area provider means a recipient or subrecipient of financial assistance under 49 U.S.C. 5307 that serves an urban area with a population of 200,000 or more as determined by the most recent decennial Census.

Maintenance data means data that includes, but is not limited to, major maintenance activity schedule and progress, adherence to maintenance schedules, including reports/documentation of deferred maintenance, records of failures and defects with severity if applicable, and records of revenue vehicles out of service, including causal information.

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

*Near-miss* means a narrowly avoided safety event.

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

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

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

*Pre-revenue Operations* means 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.

Public transportation means, as defined under 49 U.S.C. 5302, 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:

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

Publicly accessible areas means stations, platforms, vehicles in revenue service, roadways, sidewalk, park, walkway, or other areas open to the general public.

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

Revenue Service means the 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.

Risk-based Inspection means an inspection conducted as part of a risk-based inspection program.

Risk-based Inspection Data Management System means a physical or digital system that follows administrative policies and procedures that identify data storage, organizational, and management processes for risk-based inspections.

*Risk-based Inspection Program:* A risk-based inspection program uses qualitative and quantitative data analysis to inform ongoing inspection activities. Risk-based inspection programs are designed to prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk.

Roadway means land on which rail transit tracks and support infrastructure have been constructed to support the movement of rail transit vehicles, excluding station platforms.

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

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

Safety event means 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 performance target means a quantifiable level of performance or condition, expressed as a value for the measure, related to safety management activities, to be achieved within a specified time period.

Safety Program Data means data that includes, but is not limited to, event data, hazard data, safety risk ratings, mitigation data, CAP data, near miss data, and ongoing monitoring data.

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

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

Safety risk management means 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 set-aside* means the allocation of not less than 0.75 percent of assistance received by a large urbanized area provider under 49 U.S.C. 5307 to safety-related projects eligible under 49 U.S.C. 5307.

Security means freedom from harm resulting from intentional acts or circumstances.

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.

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

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

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

SSOR system is a web-based system created by FTA for SSO Agencies to submit their annual report requirements to FTA.

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

Vehicle means any rolling stock used on a rail fixed guideway public transportation system, including but not limited to passenger and maintenance vehicles.

# **Appendix B**

**Abbreviations** 



AE Account Executive

APTA American Public Transportation Association

BIL Bipartisan Infrastructure Law

CAP Corrective Action Plan

CFR Code of Federal Regulations

CSO Chief Safety Officer

FRA Federal Railroad Administration
FTA Federal Transit Administration

IIJA Infrastructure Investment and Jobs Act

ISR Internal Safety Review ITP Individual Training Plan

MPO Metropolitan Planning Organizations

NTD National Transit Database

NTSB National Transportation Safety Board
NPTSP National Public Transportation Safety Plan

PTN Public Transportation Division

PTASP Public Transportation Agency Safety Plan

PTSCTP Public Transportation Safety Certification Training Program

RBI Risk-based Inspection
RTA Rail Transit Agency

RWP Right-of-way Worker Protection SMS Safety Management System

SSCP Safety and Security Certification Plan

SSCVR Safety and Security Certification Verification Report

SSO State Safety Oversight

SSOA State Safety Oversight Agency
SSOR State Safety Oversight Reporting system

TAC Texas Administrative Code

TOC Transportation Operations Center

TTP Technical Training Plan

TxDOT Texas Department of Transportation

U.S.C. United States Code

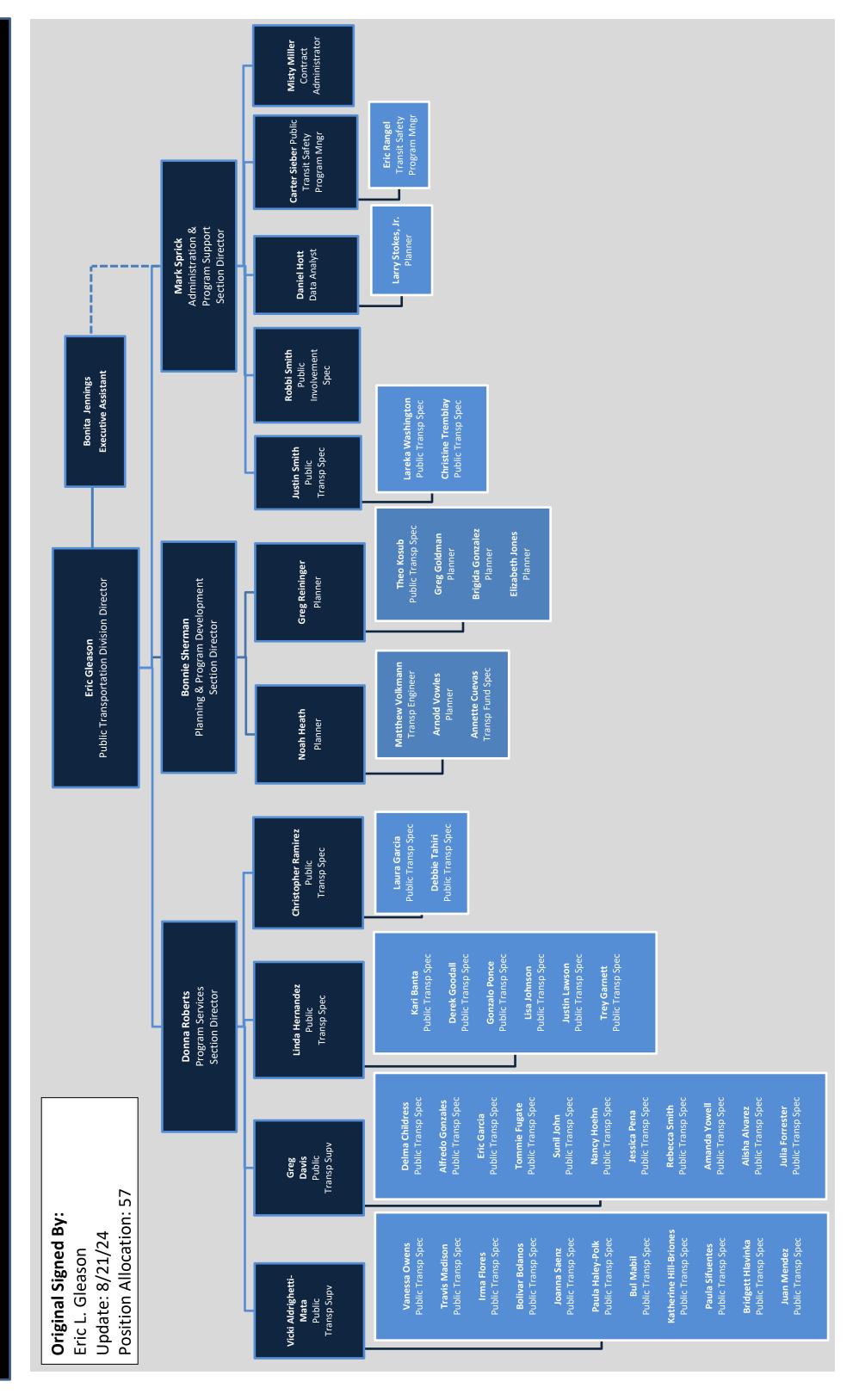
USPS United States Postal Service

# **Appendix C**

TxDOT Organizational Charts



# TxDOT-PTN - 51 Division



# **Appendix D**

PTASP Review Checklist



# Public Transportation Agency Safety Plan Review Checklist

(Effective 8/31/2024)

RTA:	Safety Plan Version:	Reviewer:	Review Date:

Each RTA must establish a Public Transportation Agency Safety Plan (PTASP) that is in compliance with 49 CFR 673 and TxDOT's Program Standard.

וופווו בפת/ אומופ שבת		Requirements	Review Questions	Pages	Compliant: Y/N	Comments/Notes:
RTA Information						
FTA PTASP Review Checklist A.1 TxDOT SSO Authority: Program Standard Section 1.2	v Checklist ity: Program ion 1.2	Rail Transit Agency Information	Does the PTASP contain:  - Agency name - Address - PTASP version information and date Statement regarding agency service area: large urbanized area or small urbanized area? - Modes of Service (directly operated or contracted service) - FTA Funding Types and Amounts Received - Transit service provided by the transit agency on behalf of another transit agency or entity, including a description of the arrangement(s) SSOA details and SSO program authority - An Accountable Executive who meets requirements of 49 CFR 673 A Chief Safety Officer or Safety Management System (SMS) Executive who meets			

673.	673.11 General Requirements (Safety Plan	fety Plan Development, Approval, and Updates)	(s	
B.1	673.11(a)	A transit agency must establish a PTASP that meets the requirements of this part and, at a minimum, consists of the following elements:	Has the RTA established a PTASP?	
B.2	673.11(a)(1)	(1) The PTASP, and subsequent updates, must be signed by Does the PTASP contain the Accountable Executive the Accountable Executive and approved by—  signature and date of signature?	Does the PTASP contain the Accountable Executive signature?	
B.3	673.11(a)(1)(i)	(i) For a large urbanized area provider, the Safety Committee established pursuant to § 673.19, followed by the transit agency's Board of Directors or an equivalent entity; or	Does the PTASP demonstrate Safety Committee approval of the ASP and date of approval?	
B.4	673.11(a)(1)(ii)	(ii) For all other transit agencies, the transit agency's Board Does the PTASP demonstrate Board of Directors or of Directors or an equivalent entity.	Does the PTASP demonstrate Board of Directors or equivalent entity approval and date of approval?	

B.5	673.11(a)(2)	(2) The PTASP must document the processes and activities Does the PTASP document the processes and activities related to SMS implementation, as required by 673	Does the PTASP document the processes and activities related to SMS implementation as required by 673	
			subpart D?	
	673.11(a)(3)	(3) The PTASP must include annual safety performance targets based on the safety performance measures	For large urbanized area providers:	
	National Public Transportation Safety Plan	established under the National Public Transportation Safety Plan.	Does the PTASP include safety performance measures required by the National Public Transportation Safety	
		ction	Plan?	
		program are omy required for farge drughlized area providers.	Does the PTASP document safety performance targets for the safety risk reduction program?	
			Are the total vehicle revenue miles used to determine performance measure rates clearly stated?	
			Safety Performance Measures	
			<ul> <li>Major Events Rate</li> </ul>	
			- Collision Rate*	
6.0 0.0			<ul><li>Pedestrian Collision Rate*</li></ul>	
			Vehicular Collision Rate*	
			- Fatalities	
			— ratality hate — Transit Worker Fatality Rate*	
			Injuries	
			- Injury Rate	
			- Transit Worker Injury Rate*	
			<ul> <li>Assaults on Transit Workers*</li> </ul>	
			<ul> <li>Assaults on Transit Workers Rate*</li> </ul>	
			<ul> <li>System Reliability</li> </ul>	
			*denotes new performance measures added with the	
			April 2024 National Public Transportation Safety Plan update.	
	673.11(a)(4)	(4) The PTASP must address all applicable requirements and standards as set forth in ETA's Public Transportation	Does the PTASP address all applicable requirements	
			and standards as section in First Strubild. Transportation Safety Program and the National Public	
B.7		Safety Plan.	Transportation Safety Plan?	
		required until standards have been established through the public notice and comment process.		
	673.11(a)(5)	(5) Each transit agency must establish a process and timeline for conducting an annual review and update of	The process and timeline for conducting an annual review and undate of the ASP including coordination	
B.8	PS Section 4.4		with the SSOA, the ASP version number, and other	
		Annual PTASP Update Requirements:  By Oct 1st pach RTA shall conduct a review of its PTASP	relevant information.	
			Does the PLASP update process document the RLA's	

				-
		and notify TxDOT via email if PTASP needs updating. If the RTA determines the PTASP must be updated. the	internal process for updating the PTASP?	
		notification shall summarize the areas requiring an	Does the PTASP update process state that all safety	
		update and the anticipated date the revised PTASP will	related items, including items within the PTASP and	
		be submitted to TxDOT. The revised PTASP must be	items associated by reference, have also been review	
		approved by each RTA no later than December 31st and	and updated?	
		submitted to TxDOT no later than January 31st.	Does the DTASP undate process include a provision	
			allowing for modification of the PTASP prior to the	
		PTASP Review Sequence and Approval	annual PTASP review and update process?	
		TXDOT will acknowledge receipt of a PTASP submission boos +bo ptasp madata moons document bt a madata	DOCC THE DIACE STOCKED	
		within 10 days.	Does the PiASF update process document ATA and SSO coordination during PTASP update?	
		TxDOT will complete the PTASP review and provide		
		review comments, including areas requiring revisions,	Does the PTASP update coordination include SSO's	
		to the RTA within 30 days of PTASP receipt.	review of the final draft before safety committee,	
		<ul> <li>TxDOT and the RTA will reach a mutually agreeable</li> </ul>	Board, and AE approvals are sought?	
		date for the resubmission of PTASPs that require	Does the PTASP update coordination include the	
		revisions. Upon receipt of requested revisions, the	following actions and deadline requirements?	
		process will continue.	a. By Oct 1st notify TxDOT of PTASP review, if	
		<ul> <li>Upon approval, TxDOT will send an approval letter via</li> </ul>	update is needed, and areas requiring	
		email to the Accountable Executive and the Chief		
		Safety Officer.		
			c. Dec 31st, updated PTASP approved by RTA.	
		Modifications to PTASP	d. Jan 31%, PTASP submitted to TxDOT.	
		With prior email approval by TxDOT, an RTA can modify		
		and implement processes described within the PTASP		
		prior to the annual PTASP update. An RTA must email		
		their SSO Program Manager with the current section of		
		the PTASP and the proposed changes. TxDOT will review		
		the proposed changes within 10 days and respond with		
		approval or request additional information needed for		
		approval. Upon approval, the RTA may implement the		
		the PTASP at the next update.		
	673.11(a)(6)(i)	The PTASP must include or incorporate by reference:	Does the ASP include or incorporate by reference:	
		An emergency preparedness and response plan or	<ul> <li>Assignment of worker responsibilities during</li> </ul>	
		procedure that addresses, at a minimum:	an emergency?	
		The assignment of transit worker responsibilities	<ul> <li>Coordination with Federal, State, regional, and</li> </ul>	
B.9		during an emergency; and	local officials with roles and responsibilities for	
		<ul> <li>Coordination with Federal, State, regional, and</li> </ul>	emergency preparedness and response in the	
		local officials with roles and responsibilities for	RTA's service area?	
		emergency preparedness and response in the		
		RTA's service area.		
	673.11(a)(6)(ii)	The PTASP must include or incorporate by reference:	Does the ASP include or incorporate by reference:	
B. 10		<ul> <li>Any policies and procedures regarding rail transit</li> </ul>	•	
		workers on the roadway the rail transit agency has	issued?	
		nancei		

RTA's policies or procedures developed in consultation with TxDOT to provide access and required data for TxDOT's RBI Program?  For large urbanized area providers:	program?  Does the safety risk reduction  Does the safety risk reduction program address the reduction of vehicular and pedestrian safety events involving transit vehicles that includes safety risk mitigations consistent with § 673.25(d)(3)?	Does the safety risk reduction program address the reduction and mitigation of assaults on transit workers that includes safety risk mitigations consistent with § 673.25(d)(4);	Does the safety risk reduction program include the safety performance measures and targets set by the safety committee for risk reduction program performance measures established in the National Public Transportation Safety Plan?  Are the total vehicle revenue miles used to determine performance measure rates clearly stated?  Are the total vehicle revenue miles used to determine performance measure rates clearly stated?  Are the total vehicle revenue miles used to determine performance measure rates clearly stated?  Are the total vehicle revenue miles used to determine performance measure rates clearly stated?  Are the total vehicle revenue miles used fined by the NTD.  Major Events: This includes all safety and security major events as defined by the NTD.  Collisions: This includes all collisions reported to the NTD.  Injuries: This includes all injuries as defined by the NTD.  Injuries: This includes all injuries as defined by the NTD.  Assaults on Transit Workers: This includes all assaults on transit workers as defined by the NTD divided by VRM.  Rate of Assaults on Transit workers as defined by the NTD divided by VRM.
	operations to improve safety performance by reducing the number and rates of safety events, injuries, and assaults on transit workers.  Does the safety risk reduction program:  (i) Address the reduction and mitigation of vehicular and spedestrian safety events involving transit vehicles that includes contained in the safety events involving transit whicles that	reduction and mitigation of assaults on that includes safety risk mitigations 8 673.25(d)(4);	(iii) Include the safety performance targets set by the Safety Committee pursuant to § 673.19(d)(2) for the safety risk reduction program performance measures established in the National Public Transportation Safety Plan. These prargets must be set —
673.11(a)(6)(iii) B.11 673.11(a)(7)	B.12 673.11(a)(7)(i) B.13	673.11(a)(7)(ii) B.14	Mational Public Transportation Safety Plan  B.15

			Total number and rate per total vehicle revenue miles, by mode.	
B.16	673.11(a)(7)(iii)(A)	(A) Based on a three-year rolling average of the data submitted by the large urbanized area provider to NTD.	For large urbanized area providers:  Does the safety risk reduction program demonstrate	
			that periormance targets are based on a rolling three- year average of the data submitted to NTD?	
	673.11(a)(7)(iii)(B)	(B) For all modes of public transportation; and	For large urbanized area providers:	
B.17			Does the safety risk reduction program include safety performance targets for all modes of public transportation?	
	673.11(a)(7)(iii)(C)	<ul> <li>Based on the level of detail the large urbanized area provider is required to report to NTD. The Safety</li> </ul>	For large urbanized area providers:	
		Committee is not required to set a target for a performance measure until the large urbanized area	Has the RTA submitted three years of data to NTD in order to set safety targets?	
B.18		provider has been required to report three years of data to the NTD corresponding to such performance measure.		
			target for a performance measure until the large urbanized area provider has been required to report	
			three years of data to the NTD corresponding to such performance measure.	
	673.11(a)(7)(iv)	(iv) Include or incorporate by reference the safety risk	Does the PTASP include or incorporate by reference	
		mitigations identified and recommended by the Safety Committee as described in § 673.25(d)(5).	the safety risk mitigations identified and recommended by the Safety Committee as described	
			in § 673.25(d)(5)?	
			Reference: 673.25(d)(5)- When a large urbanized area	
0			gency's safety risk reduction program, identifies and	
-			recommends under § 673.19©(6) safety risk	
			mittyations, including mittyations relating to verification and pedestrian safety events involving transit vehicles	
			or assaults on transit workers, based on a safety risk	
			dssessment conducted under § 6/3.25©, the transit	
			agenty mast incure or incorporate by reference triese safety risk mitigations in its ASP pursuant to § הרביב בדרומות in its ASP pursuant to §	
	673.11(b)	(b) A transit agency may develop one PTASP for all modes	Did the RTA develop one PTASP for all modes of	
B.20		of service or may develop a PTASP for each mode of	Service or a PTASP for separate modes of service not	
		entity.		
	National Public Transportation	FTA's Public Transportation Safety Program and the	Does the PTASP address all applicable requirements	
B.21	satety Plan	ivational Public Transportation Salety Pian Compilance.	and standards as set forth in FTA's Public Transportation Safety Program and the National Public	
 			Transportation Safety Plan.	
	Program		_	
B.22	673.11(c)	(c) A transit agency must maintain its PTASP in accordance with the recordkeeping requirements in 673 Subpart E.	Does the PTASP state the RTA will maintain its PTASP in accordance with the recordkeeping requirements in 673 Subpart E?	
			Reference: 49 CFR 673.31 (Subpart E)-	

include:	process to make safety performance targets	available to the State and MPO?		This section must include specific information on	the process including who is responsible for making	the targets available, to whom the targets are	provided to, and when the targets are provided.	include:	b. process to coordinate with the State and	MPO in the selection of safety performance	ts?	This section must include specific information on	the coordination process when selecting safety	performance targets. This must include how	coordination occurs, who is responsible for the	coordination, when the coordination occurs, and
make its safety Does the plan include:	ġ.			This section i	the process i	the targets a	provided to,	icable, a State or transit Does the plan include:			ets. targets?	This section I	the coordina	performance	coordination	coordination
A State or transit agency must make its safety	performance targets available to States and	Metropolitan Planning Organizations to aid in the	planning process.					To the maximum extent practicable, a State or transit	agency must coordinate with States and Metropolitan	Planning Organizations in the selection of State and	MPO safety performance targets.					

673.17	673.17 Safety Committees and Cooperatior	ooperation with Frontline Transit Worker Representatives	esentatives	
	673.17(a)	(a) Each large urbanized area provider must establish a Safety Committee that meets the requirements of §	For large urbanized area providers:	
D.1		673.19.	Does the PTASP document the establishment of a safety committee that meets the requirements of	
			673.19?	
	673.17(b)	(b) Each transit agency that is not a large urbanized area	For an agency that is <u>not</u> a large urbanized area	
			provider:	
		(1) Develop its PTASP, and subsequent updates, in		
		cooperation with frontline transit worker representatives;	with frontline transit worker representatives; Does the PTASP state that the RTA will develop its	
D.2		and	PTASP, and subsequent updates, in cooperation with	
		(2) Include or incorporate by reference in its PTASP a	frontline transit worker representatives?	
		description of how frontline transit worker representatives		
		cooperate in the development and update of the PTASP.	Does the PTASP include or incorporate by reference a	
			description of how frontline transit worker	

			representative cooperate in the development and update of the PTASP?	_
673.19	673.19 Safety Committees			
	673.19(a)	(a) Establishing the Safety Committee.	For large urbanized area providers:	
μ		Each large urbanized area provider must establish and operate a Safety Committee that is: (1) Appropriately scaled to the size, scope, and complexity	Does the PTASP document that the RTA has established and operates a safety committee that is appropriately scaled to the size, scope, and complexity	
;		of the transit agency; and (2) Convened by a joint labor-management process.	of the transit agency?	_
			Does the PTASP document that the RTA has established and operates a safety committee that is	
	673 19(h)	(b) Safety Committee membership.	Convened by a joint-labor management process? Does the Safety Committee consist of an equal	
	(2) 2:10 (2)		number of frontline transit worker representatives and	_
		The Safety Committee must consist of an equal number of		_
		frontline transit worker representatives and management representatives. To the extent practicable, the Safety	To the extent practicable does the Safety Committee	_
		Committee must include frontline transit worker	include frontline transit worker representatives from	_
		representatives from major transit service functions, such	major transit service functions, such as operations and	_
		as operations and maintenance, across the transit system.	maintenance, across the transit system?	_
		(+) The rappl of gamzarion that represents the planamy of the transit agency's frontline transit workers must select	Are transit workers represented by a labor	_
E.2		frontline transit worker representatives for the Safety	organization? If yes, does the labor organization that	_
		Committee.	represents the plurality of the transit agency's	_
		(2) If the transit agency's frontline transit workers are not	frontline transit workers select frontline transit worker	_
		represented by a labor organization, the transit agency	representatives for the Safety Committee?	_
		relect frontline transit worker representatives for the	If the transit agency's frontline transit workers are not	_
		Safety Committee.	represented by a labor organization, has the RTA	_
			adopted a mechanism for frontline transit workers to	_
			select frontline transit worker representatives for the	_
			Safety Committee?	
<del></del>	673.19©	(c) Safety Committee procedures.	For large urbanized area providers:	
		Each large urbanized area provider must include or	How does the RTA document procedures regarding	_
E.3		incorporate by reference in its PTASP procedures regardingsafety committees' composition, responsibilities,	ssafety committees' composition, responsibilities,	_
		the composition, responsibilities, and operations of the Safety Committee which, at a minimum, must address:	operations of the safety committee of the safety commi	_
			<ul> <li>Incorporate by reference?</li> </ul>	
	673.19©(1)	(1) The organizational structure, size, and composition of	Do the safety committee procedures include within	
		the salety Committee and now it will be challed,	the PTASP of incorporate by reference the following information:	_
E.4			<ul> <li>organizational structure,</li> </ul>	_
			- size,	_
			-       safety committee composition and         -       how the safety committee will be chaired?	_
3	673 19(c)(2)	(2) How meeting agendas and notices will be developed	Do the safety committee procedures include within	
п		and shared, and how meeting minutes will be recorded	the PTASP or incorporate by reference the following	_
)		and maintained;	information:	_

			developed and shared  How meeting minutes will be recorded and maintained?	
6.	673.19©(3)	(3) Any required training for Safety Committee members related to the transit agency's PTASP and the processes, activities, and tools used to support the transit agency's SMS;	Do the safety committee procedures include within the PTASP or incorporated by reference the following information:  — Any required training for Safety Committee members related to the transit agency's PTASP  — The processes, activities, and tools used to support the transit agency's SMS.	
E.7	673.19(c)(4)	(4) The compensation policy established by the agency for participation in Safety Committee meetings;	Do the safety committee procedures include within the PTASP or incorporated by reference the following information:  — The compensation policy established by the agency for participation in Safety Committee meetings.	
E.8	673.19(c)(5)	(5) How the Safety Committee will access technical experts, including other transit workers, to serve in an advisory capacity as needed; transit agency information, resources, and tools; and submissions to the transit worker safety reporting program to support its deliberations;	Do the s the PTA: Safety C - -	
E.9	673.19(c)(6)	(6) How the Safety Committee will reach and record decisions;	Do the safety committee procedures include within the PTASP or incorporated by reference:  How the Safety Committee will reach and record decisions.	
E.10	673.19(c)(7)	(7) How the Safety Committee will coordinate and communicate with the transit agency's Board of Directors, for equivalent entity, and the Accountable Executive;	Do the safety committee procedures include within the PTASP or incorporated by reference:  - How the Safety Committee will coordinate and communicate with the transit agency's Board of Directors, or equivalent entity, and  - The Accountable Executive.	
E.11	673.19(c)(8)	(8) How the Safety Committee will manage disputes to ensure it carries out its operations.  The Safety Committee may use the dispute resolution or arbitration process from the transit agency's Collective Bargaining Agreement, or a different process that the Safety Committee develops and agrees upon, but the Accountable Executive may not be designated to resolve any disputes within the Safety Committee; and	Do the safety committee procedures include within the PTASP or incorporated by reference:  — How will the Safety Committee manage disputes to ensure it carries out its operations?	
E.12	673.19(c)(9)	is section.	Does the RTA's Safety Committee procedures describe how the RTA will carry out its responsibilities identified in 673.19(d).	
E.13	673.19(d)(1)	(d) Safety Committee responsibilities.  The Safety Committee must conduct the following activities to oversee the transit agency's safety	Does the safety committee responsibilities, included within the PTASP or incorporated by reference, state that the safety committee with do the following:  — Review and approve the agency's PTASP and	

any updates as required at § 673.11(a)(1)(i);	Reference: 673.11(a)(1)(i):  (a) A transit agency or State must establish a Public  Transportation Agency Safety Plan that meets the requirements of this part and, at a minimum, consists of the following elements:	(1) The Public Transportation Agency Safety Plan, and subsequent updates, must be signed by the Accountable Executive and approved by—	(i) For a large urbanized area provider, the Safety Committee established pursuant to § 673.19, followed by the transit agency's Board of Directors or an equivalent entity; or	Does the safety committee responsibilities, included within the PTASP or incorporated by reference, state that the safety committee will set annual safety	performance targets for the safety risk reduction program as required at § 673.11(a)(7)(iii)?	Reference: 673.11(a)(7)(iii): (a) A transit agency or State must establish a PTASP	that meets the requirements of this part and, at a minimum, consists of the following elements:	(7) The PTASP of each large urbanized area provider	must include a safety risk reduction program for transit operations to improve safetv performance	by reducing the number and rates of safety events,	injuries, and assaults on transit workers. The safety risk reduction program must at a minimum:	(iii) Include the safety performance targets set	by the Safety Committee pursuant to § 673-19(4)(7) for the safety risk reduction	program performance measures	established in the National Public	must be set—	(A) Based on a three-year rolling average	of the data submitted by the large urbanized area provider to the National Transit Database (NTD);	(B) For all modes of public transportation; and	(C) Based on the level of detail the large	urbanized area provider is required to	report to the NTD. The Sajety	committee is not required to set d target for a performance measure until	the large urbanized area provider has	been required to report three years of
performance:	(1) Review and approve the agency's PTASP and any updates as required at § 673.11(a)(1)(i);			The Safety Committee must conduct the following activities to oversee the transit agency's safety performance:	(2) Set annual safety performance targets for the safety lrisk reduction program as required at § 673.11(a)(7)(iii);																				
				673.19(d)(2)										E.14											

	673.19(d)(3)(i)		•	
	)(a)(3)(i)		performance measure.	
:.15		The Safety Committee must conduct the following	Does the safety committee activities, included within	
:15		activities to oversee the transit agency's safety	the PTASP or incorporated by reference, state that the	
5.15		performance:	safety committee will:	
E.15			<ul> <li>Identify and recommend safety risk</li> </ul>	
E.15		(3) Support operation of the transit agency's SMS by:	mitigations necessary to reduce the likelihood	
		(i) Identifying and recommending safety risk mitigations	and severity of potential consequences	
		necessary to reduce the likelihood and severity of	identified through the agency's safety risk	
		potential consequences identified through the agency's	assessment, including safety risk mitigations	
		safety risk assessment, including safety risk mitigations	associated with any instance where the transit	
		associated with any instance where the transit agency did		
		not meet an annual safety performance target in the	performance target in the safety risk reduction	
		safety risk reduction program;	program	
673.15	673.19(d)(3)(ii)	(ii) Identifying safety risk mitigations that may be	Does the safety committee activities, included within	
		ineffective, inappropriate, or were not implemented as	the PTASP or incorporated by reference, state that the	
		/ith		
7		annual safety performance target in the safety risk	ineffective, inappropriate, or were not	
E.IO		reduction program; and	implemented as intended, including safety risk	
			mitigations associated with any instance	
			where the transit agency did not meet an	
			annual safety performance target in the safety	
			risk reduction program	
673.15	673.19(d)(3)(iii)	(iii) Identifying safety deficiencies for purposes of	Does the safety committee activities, included within	
		continuous improvement as required at § 673.27(d),	the PTASP or incorporated by reference, state that the	
		including any instance where the transit agency did not	safety committee will:	
		meet an annual safety performance target in the safety	<ul> <li>Identify safety deficiencies for purposes of</li> </ul>	
E.17		risk reduction program.	continuous improvement as required at §	
			673.27(d), including any instance where the	
			transit agency did not meet an annual safety	
			performance target in the safety risk reduction	
			program.	

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673.21 Safety Management Systems
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Does the PTASP document the agency's establishment and implementation of safety management system?	Does the PTASP document a safety management system (SMS) that is appropriately scaled to the size, scope, and complexity of the RTA?  Does the PTASP document the agency's Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.
General Requirements	Each transit agency must establish and implement a Safety Management System under this part. A transit agency Safety Management System must be appropriately scaled to the size, scope and complexity of the transit agency and include the following elements:  (a) Safety Risk Management (b) Safety Assurance, and (c) Safety Promotion
673.21	F.1

# 673.23 Safety Management Policy

Has the RTA established and documented within the
Safety Management Policy
<sub>5.1</sub> 673.23(a)

(a) acc stai trai trai des app app app app app app app app app ap		HASE:	
	(a) A transit agency must estabilish its organizational accountabilities and responsibilities and have a written statement of Safety Management Policy that includes the transit agency's safety objectives and a description of the transit agency's Safety Committee or approach to cooperation with frontline transit worker representatives.	<ul> <li>organizational accountabilities and responsibilities?</li> <li>Written statement of Safety Management Policy, which includes: <ul> <li>the transit agency's safety objectives,</li> <li>description of the transit agency's Safety Committee or approach to Connectation with frontline transit</li> </ul> </li> </ul>	
		worker representatives.	
	<ul><li>(b) A transit agency must establish and implement a process that allows transit workers to report safety</li></ul>	Has the RTA established and documented within the PTASP:	
• 1	ٺ		
mis	misses, and unsafe acts and conditions to senior management. includes protections for transit workers who	safety concerns, including assaults on transit workers, near-misses, and unsafe acts and	
rep	report, and includes a description of transit worker	conditions to senior management,	
ם מ	Deliaviols that may result in disciplinary action.	transit workers who report, and includes a	
		description of transit worker behaviors that may result in disciplinary action?	
673.23(c) (c)	(c) The Safety Management Policy must be communicated	Does the PTASP describe how the Safety Management	
		Policy is communicated throughout the transit agency?	
(d)		Does the PTASP document that the RTA has	
aut		established the necessary authorities,	
mia Or 6	management of safety amongst the following individuals or groups within its organization, as they relate to the	accountabilities, and responsibilities for the management of safety amongst the following	
dev		individuals or groups within its organization, as they	
SMS:		relate to the development and management of the	
	Accountable Evention	in anish agency 3 Jivis:	
(T) (D) (T) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D	Accountable Executive.	Does the PTASP identify the Accountable Executive by position and name?	
_			
ш	e for	Does the description of the Accountable Executive	
υ . <del>:</del>	ensuring that the transit agency's SMS is effectively a	authorities, accountabilities, and responsibilities align	
		— Accountable Executive may delegate specific	
	accountable for ensuring action is taken, as necessary, to	responsibilities, but the ultimate	
е	address substandard performance in the transit agency's	accountability for the transit agency's safety	
S	SMS. The Accountable Executive may delegate specific	performance cannot be delegated and always	
	responsibilities, but the ultimate accountability for the	rests with the Accountable Executive.	
<del>-</del>	transit agency's safety performance cannot be delegated	- The Accountable Executive of a large  - Th	
	and always rests with the Accountable executive.	urbanized area provider must implement	
	(i) The Accountable Evenitive of a large urhanized area	sarety risk mitigations for the sarety risk reduction program that are included in the	
	(I) THE ACCOUNTABLE EXECUTIVE OF A RIANGE OF BEARINGED AS PROVIDER MILE TIME FOR THE	Jacustion program index 8 673 11(a)(7)(iv)	
	safety risk reduction program that are included in the	The Accountable Executive of a large	
	Agency Safety Plan under § 673.11(a)(7)(iv).	urbanized area provider receives and must	
		consider all other safety risk mitigations	
	(ii) The Accountable Executive of a large urbanized area	recommended by the Safety Committee,	
0.	provider receives and must consider all other safety risk	consistent with requirements in §§ 673.19(d)	
<u> </u>	mitigations recommended by the Safety Committee,	and 673.25(d)(6).	
	consistent with requirements in §§ 6/3.19(d) and 673-35(d)(6)		

	673.23(d)(2)	(2) Chief Safety Officer or SMS Executive.	Does the PTASP identify the Chief Safety Officer or	
		•	SMS Executive by position and name?	
		The Accountable Executive must designate a Chief Safety	_	
		Officer or SMS Executive who has the authority and	Does the description of the Chief Safety Officer or SMS	
יי		responsibility for day-to-day implementation and	Executive authorities, accountabilities, and	
		operation of a transit agency's SMS. The Chief Safety	responsibilities align with the requirements of 673	
		Officer or SMS Executive must hold a direct line of		
		reporting to the Accountable Executive. A transit agency		
		may allow the Accountable Executive to also serve as		
		the Chief Safety Officer or SMS Executive.		
	673.23(d)(3)	(3) Safety Committee.	Does the PTASP document that the RTA has	
			established a joint labor-management Safety	
6.7		A large urbanized area provider must establish a joint	Committee that meets the requirements of 673.19?	
		labor-management Safety Committee that meets the		
		requirements of § 673.19.	Reference: 673.11(a)(7)(iii):	
	673.23(d)(4)	(4) Transit agency leadership and executive management.	ency leadership and executive management. Does the PTASP identify transit agency leadership and	
			executive management by position and name for	
		A transit agency must identify those members of its	positions that have authorities or responsibilities for	
(		leadership or executive management, other than an	day-to-day implementation and operation of a transit	
o		Accountable Executive, Chief Safety Officer, or SMS	agency's SMS?	
		Executive, who have authorities or responsibilities for		
		day-to-day implementation and operation of a transit		
		agency's SMS.		
	673.23(d)(5)	(5) Key staff.	Does the PTASP identify key staff, groups of staff, or	
			committees, which may include by position or name,	
		A transit agency may designate key staff, groups of staff, to support the Accountable Executive, Chief Safety	to support the Accountable Executive, Chief Safety	
6.9		or committees to support the Accountable Executive,	Officer, Safety Committee, or SMS Executive in	
		Chief Safety Officer, Safety Committee, or SMS Executive developing, implementing, and operating the transit	developing, implementing, and operating the transit	
		in developing, implementing, and operating the transit	agency's SMS?	
		agency's SMS.		

673.25(a)  H.1  673.25(b)	(a) Safety Risk Management process.  A transit agency must develop and implement a Safety Risk Management process for all elements of its public transportation system. The Safety Risk Management process must be comprised of the following activities: hazard identification, safety risk assessment, and safety risk mitigation.	Does the PTASP document that the RTA has developed and implemented a Safety Risk Management process for all elements of its public transportation system? Is the Safety Risk Management process comprised of the following activities: hazard identification, safety risk assessment, and safety risk mitigation?	
	<ul> <li>(1) A transit agency must establish methods or processes to identify hazards and potent consider, as a source for hazard identification:  (i) Data and information provided by an oversight Agency having jurisdiction;  (ii) Data and information regarding exposure to infectious disease provided by the CDC or a State health authority, and</li> </ul>	methods or processes to identify hazards and potential consequences of the hazards?  Does the RTA consider, as a source for hazard identification:  - Data and information provided by an oversight authority, including but not limited to FTA, the State, or as applicable, the State Safety Oversight Agency having jurisdiction,  - Data and information regarding exposure to infectious disease provided by the CDC or a State health authority,	

	(iii) Safety concerns identified through Safety Assurance	- Safety concerns identified through Safety	
	rried out under § 673.27.	Assurance activities carried out under 673.27.	
673.25(c)(1)-(2)	(c) Safety risk assessment.  (1) A transit agency must establish methods or processes to assess the safety risk associated with identified.	assessment.  Does the PTASP document that the RTA has establish agency must establish methods or processes to assess the safety risk associated with identified associated with identified.	
		2330 craced with accountable as acco	
Н.3	essment of	Does the salety fisk assessment include an assessment of the likelihood and severity of the potential	
	the likelihood and severity of the potential	consequences of identified hazards, taking into	
	k	seconnic existing salety risk mitigation is necessary and to inform	
	mitigation is necessary and to inform prioritization of safety risk mitigations.	prioritization of safety risk mitigations?	
673.25(d)(1)	Safety risk mitigation.	Does the PTASP document that the RTA has establish	
	(1) A transit agency must establish methods or processes to identify cafety risk mitigations or strategies	methods or processes to identify safety risk mitigations or strategies necessary as a result of the	
	fety risk	transit agency's safety risk assessment to reduce the	
H.4	nt to reduce the likelihood and severity of	likelihood and severity of the potential consequences?	
	tile poteitital collocquerices.	For large urbanized area providers, do these methods	
	For large urbanized area providers, these methods or processes must address the role of the transit agency's	or processes address the role of the safety committee?	
673.25(d)(2)	y must consider, as a source for safety	Does the PTASP document that the RTA considers, as a	
	risk mitigation:	source for safety risk mitigations:       Guidance provided by an oversight authority, if	
	(i) Guidance provided by an oversight authority, if	applicable,	
H.5	applicable, and FTA; and	FTA, and     Guidelines/strategies to prevent or control	
	(ii) Guidelines to prevent or control exposure to	expositive to infectious diseases provided by	
	infectious diseases provided by the CDC or a State	the CDC or a State health authority	
	health authority.	-	
673.25(d)(3)	satety	For large urbanized area providers:	
		ريام كورو مراب مرما والمراب المراب ال	
	pedestrial salety events involving transit venicies, including to address a missed safety performance	When Identifying safety fisk mitigations for the safety risk reduction program related to vehicular and	
	by the Safety Committee under §	pedestrian safety events involving transit vehicles,	
	vider and	including to address a missed safety performance	
( <del>-</del>	to	target set by the Safety Committee under §	
<b>О</b> .П		6/3.19(d)(2), does the KLA:	
	operators that contribute to accidents, including retrofits to vehicles in revenue service and	considers mitigations to reduce visibility	
	specifications for future procurements that reduce	impairments for transit vehicle operators that	
	visibility impairments.	contribute to accidents, including retrofits to	
		vehicles in revenue service and specifications	
		for future procurements that reduce visibility impairments?	
673.25(d)(4)	>	For large urbanized area providers:	
	_	والمركوم والمسترادة مرايات المرايد والمرايد والم	
7 7	workers, illeraturing to additess a lillissed safety	Wileli Ideliti yilig salety ilsk iliitigatiolis ioi tile salety rick reduction program related to accoults on trancit	
	§ 673.19(d)(2), each large urbanized area provider and h	workers, including to address missed safety	
		performance targets, does the RTA and its Safety	
	assault mitigation infrastructure and technology on	Committee consider deployment of assault mitigation	

		transit vehicles and in transit facilities.	infrastructure and technology on transit vehicles and in transit facilities?	
		Assault mitigation infrastructure and technology includes barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators.		
Н.	673.25(d)(5)	(5) When a large urbanized area provider's Safety Committee, as part of the transit agency's safety risk reduction program, identifies and recommends under § 673.19(c)(6) safety risk mitigations, including mitigations relating to vehicular and pedestrian safety events involving transit vehicles or assaults on transit workers, based on a safety risk assessment conducted under § 673.25(c), the transit agency must include or incorporate by reference these safety risk mitigations in its ASP pursuant to § 673.11(a)(7)(iv).	For large urbanized area providers:  Has the RTA included within the PTASP or incorporated by reference, safety risk mitigations identified and recommended by the safety committee, including mitigations relating to vehicular and pedestrian safety events involving transit vehicles or assaults on transit workers, based on a safety risk assessment conducted under § 673.25(c)?	
н 6.	673.25(d)(6)	<ul> <li>(6) When a large urbanized area provider's Safety Committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the Accountable Executive decides not to implement the Accountable Executive must prepare a written statement explaining their must prepare a written statement explaining their safety risk mitigation, the Accountable Executive must submit and present the Accountable Executive must submit and present this explanation to the transit agency's Safety Committee and Board of Directors or equivalent entity.</li> <li>For large urbanized area providers:  Does the PTASP include the requirement that the must prepare a written statement explaining their safety risk mitigation, unrelated to the safety committee?</li> </ul>	For large urbanized area providers:  Does the PTASP include the requirement that the AE must prepare a written statement explaining their decision when the AE decides not to implement a safety risk mitigation, unrelated to the safety risk reduction program, recommended by the safety committee?  Does the PTASP state the AE must submit and present the explanation to the safety committee and Board of Directors or equivalent entity?	

673.27(a)   (a) Safety Assurance process.   Does the PTASP document that the RTA has developed and implement a Safety Assurance process. A transit agency must develop and implement a Safety Assurance process, consistent with this subpart. A rail   Page the RTA operates more than one hundred fixed guay bublic transportation system; and a vehicles in peak revenue service, must include in 15 Safety Assurance process each of the requirements in paragraphs (b), (c), and (d) of this section.	673.27 Safety Assurance	93		
A transit agency must develop and implement a Safety Assurance process, consistent with this subpart. A rail Assurance process, consistent with this subpart. A rail fixed guideway public transportation system, and a recipient or subrecipient of Federal financial assistance under 49 U.S.C. chapter 53 that operates more than one hundred vehicles in peak revenue service, must include in its Safety Assurance process each of the requirements in paragraphs (b), (c), and (d) of this section.  A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. A transit agency must establish activities to:  (1) Monitor its system for compliance with, and	673.27(a)	(a) Safety Assurance process.	Does the PTASP document that the RTA has developed and implemented a safety assurance process?	
fixed guideway public transportation system, and a recipient or subrecipient of Federal financial assistance under 49 U.S.C. chapter 53 that operates more than one hundred vehicles in peak revenue service, must include in its Safety Assurance process each of the requirements in paragraphs (b), (c), and (d) of this section.  A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement.  A transit agency must establish activities to:  (1) Monitor its system for compliance with, and		A transit agency must develop and implement a Safety Assurance process, consistent with this subpart. A rail	Does the RTA operates more than one hundred	
under 49 U.S.C. chapter 53 that operates more than one hundred vehicles in peak revenue service, must include in its Safety Assurance process each of the requirements in paragraphs (b), (c), and (d) of this section.  A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. A transit agency must establish activities to:  (1) Monitor its system for compliance with, and		fixed guideway public transportation system, and a recipient or subrecipient of Federal financial assistance	vehicles _	
one hundred vehicles in peak revenue service, must include in its Safety Assurance process each of the requirements in paragraphs (b), (c), and (d) of this section.  A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. Doe dew A transit agency must establish activities to:  (1) Monitor its system for compliance with, and		under 49 U.S.C. chapter 53 that operates more than		
include in its Safety Assurance process each of the requirements in paragraphs (b), (c), and (d) of this section.  A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. Doe dew A transit agency must establish activities to:  1) Monitor its system for compliance with, and	1.1	one hundred vehicles in peak revenue service, must	<ul> <li>If no, then the RTA is a small public</li> </ul>	
requirements in paragraphs (b), (c), and (d) of this section.  A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. Doe deventually de		include in its Safety Assurance process each of the	transportation provider and must only comply	
A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. Doe A transit agency must establish activities to:  (1) Monitor its system for compliance with, and		requirements in paragraphs (b), (c), and (d) of this	with (b) and (d) below.	
A small public transportation provider only must include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. Doe A transit agency must establish activities to:  (1) Monitor its system for compliance with, and		section.		
include in its Safety Assurance process the requirements in paragraphs (b) and (d) of this section.  (b) Safety performance monitoring and measurement. Doe dew A transit agency must establish activities to:  (1) Monitor its system for compliance with, and		A small public transportation provider only must		
for this section.  (b) Safety performance monitoring and measurement. Doe deventable to the deventable of this section.  (b) Safety performance monitoring and measurement. Doe deventable to the deventable of th		include in its Safety Assurance process the		
673.27(b)  (b) Safety performance monitoring and measurement. Doe dew  A transit agency must establish activities to:  1)		requirements in paragraphs (b) and (d) of this section.		
A transit agency must establish activities to:  A transit agency must establish activities to:  1)  (1) Monitor its system for compliance with, and	673.27(b)	(b) Safety performance monitoring and measurement.	Does the PTASP document that the RTA has	
A transit agency must establish activities to:  1)  (1) Monitor its system for compliance with, and			developed and established activities to:	
1)	1.2	A transit agency must establish activities to:		
			1) Monitor its system for compliance with, and	
		(1) Monitor its system for compliance with, and	sufficiency of, the transit agency's procedures for	

operations and maintenance?  Monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.  a. For large urbanized area providers, these activities must address the role of the transit agency's Safety Committee;  Conduct investigations of safety events to identify causal factors?  Monitor information reported through any internal safety reporting programs?	Does the PTASP document that the RTA:  Has developed and established a process to identify and assess changes that may introduce new hazards or impact the transit agency's safety performance?  If the RTA determines that a change may impact its safety performance, then the transit agency must evaluate the proposed change through its Safety Risk  Management process?	Does the PTASP document a process to assess its safety performance annually?  Does the process include the identification of deficiencies in the agency's SMS and performance against safety performance targets required by 673.11(a)(3)?  For large urbanized area providers, does the process address the role of the transit agency's Safety  Committee, and include the identification of deficiencies in the transit agency's performance against annual safety performance targets set by the Safety Committee under § 673.19(a)(2) for the safety risk reduction program required in § 673.11(a)(7)?	e Annual Internal Safety Review Process the following key details: RTA shall submit the ISR package at least 60 days prior to conducting ISR. Does the ISR process state the items required to be submitted as part of the ISR package? Does the ISR process state the package approval milestones and associated dates? Does the ISR process state required ISR report
operation operation operation mitigation in appropriate or an analysis (2) (2) (3) (4) (4) (4) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5			Does the include t
sufficiency of, the transit agency's procedures for operations and maintenance;  (2) Monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. For large urbanized area providers, these activities must address the role of the transit agency's Safety Committee;  (3) Conduct investigations of safety events to identify causal factors; and  (4) Monitor information reported through any internal safety reporting programs.	<ul> <li>(c) Management of change.</li> <li>(1) A transit agency must establish a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance.</li> <li>(2) If a transit agency determines that a change may impact its safety performance, then the transit agency must evaluate the proposed change through its Safety Risk Management process.</li> </ul>	(d) Continuous improvement.  (1) A transit agency must establish a process to assess its safety performance annually.  (i) This process must include the identification of deficiencies in the transit agency's SMS and deficiencies in the transit agency's performance against safety performance targets required in § 673.11(a)(3).  (ii) For large urbanized area providers, this process must also address the role of the transit agency's Safety Committee, and include the identification of deficiencies in the transit agency's performance against annual safety performance targets set by the Safety Committee under § 673.19(d)(2) for the safety risk reduction program required in § 673.11(a)(7).	(iii) Rail transit agencies must also address any specific internal safety review requirements established by their SSOA.
	673.27(c)	673.27(d)(1)(i-iii) Program Standard Section 4.7	

			submission requirements, including required	
			report contents, required submission items.	
			and associated deadlines?	
	673.27(d)(2)	(2) A large urbanized area provider must monitor safety performance against annual safety performance	For large urbanized area providers:	
1.5		targets set by the Safety Committee under §	Does the PTASP document a <i>process</i> to monitor safety	
		673.19(d)(2) for the safety risk reduction program in §	performance against annual safety performance	
		673.11(a)(7).	targets for the safety risk reduction program?	
	673.27(d)(3)	(3) A large urbanized area provider that does not meet an	For large urbanized area providers:	
		established annual safety performance target set by		
		the Safety Committee under § 673.19(d)(2) for the	Does the PTASP document the following, if the the RTA	
		safety risk reduction program in § 673.11(a)(7) must:	doesn't meet a risk reduction program annual safety	
			performance target:	
		(i) Assess associated safety risk, using the methods or	<ul> <li>RTA must assess associated risk using methods</li> </ul>	
		processes established under § 673.25(c);	or processes established by 673.25(c)?	
			<ul> <li>RTA must mitigate associated safety risk based</li> </ul>	
		(ii) Mitigate associated safety risk based on the results	on the results of a safety risk assessment using	
		of a safety risk assessment using the methods or		
9		processes established under § 673.25(d). The transit	673.25(d)?	
?		agency must include these mitigations in the plan	<ul> <li>Mitigations must be included within</li> </ul>	
		described at § 673.27(d)(4) and in the Agency Safety	the AE directed plan to address	
		Plan as described in § 673.25(d)(5); and	deficiencies as required by	
			673.27(d)(4), and	
		(iii) Allocate its safety set-aside in the following fiscal	o Included within the PTASP.	
		year to safety-related projects eligible under 49 U.S.C.		
		5307 that are reasonably likely to assist the transit	Does the PTASP document that the RTA with allocate	
		agency in meeting the safety performance target in	its safety set-aside in the following fiscal year to	
		the future.	safety-related projects eligible under 49 U.S.C. 5307	
			that are reasonably likely to assist the transit agency in	
			meeting the safety performance target in the future?	
	673.27(d)(4)	(4) A transit agency must develop and carry out, under the Does the PTASP document that the RTA must develop	eDoes the PTASP document that the RTA must develop	
17			and carry out, under the direction of the Accountable	
<u>:</u>		address any deficiencies identified through the safety	Executive, a plan to address any deficiencies identified	
		performance assessment as described in this section.	through the safety performance assessment?	

6/3.29 Sarety Promotion			
673.29(a)	(a) Competencies and training.	Does the PTASP document or incorporate by reference a comprehensive safety training program?	
	(1) A transit agency must establish and implement a comprehensive safety training program that includes	Does the safety training program include:	
	de-escalation training, safety concern identification	– De-escalation training?	
	and reporting training, and refresher training for all	ı	
	operations transit workers and transit workers directly	training?	
T:;	responsible for safety in the transit agency's public	<ul> <li>Refresher training for all operations and transit</li> </ul>	
	transportation system. The training program must	workers directly responsible for safety?	
	include refresher training, as necessary.	<ul> <li>Refresher training, as necessary?</li> </ul>	
	(2) Large urbanized area providers must include	For large urbanized area providers, are maintenance	
	maintenance transit workers in the safety training	transit workers included in the safety training	
	program.	program?	
673.29(b)	(b) Safety communication.	Does the PTASP document safety communication	
7:5		requirements including the following items?	

		A transit agency must communicate safety and safety performance information throughout the transit agency's organization that, at a minimum, conveys information on hazards and safety risk relevant to transit workers' roles and responsibilities and informs	Information on hazards and safety risks relevant to transit workers' roles and responsibilities?	
		transit workers of safety actions taken in response to reports submitted through a transit worker safety reporting program.	Informs transit workers of safety actions taken in response to reports submitted through a transit worker safety reporting program?	
		A transit agency must also communicate the results of cooperation with frontline transit worker representatives as described at § 673.17(b) or the Safety Committee activities described in § 673.19.	Communicate of the results of cooperation with frontline transit worker representatives as described at § 673.17(b) or the Safety Committee activities described in § 673.19.	
6/3.31	I Safety Plan Documentation and Reco	on and Kecordkeeping.		
K.1 673.5 D	K.1 <b>673.5 Definitions</b> L.1	At all times, a transit agency must maintain documents are retained for a mini that set forth its PTASP, including those related to the implementation of its SMS, and results from SMS processes and activities. A transit agency must maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that the transit agency uses to carry out its PTASP.  These documents must be made available upon request by FTA or other Federal entity, or a State or State Safety Oversight Agency having jurisdiction. A transit agency must maintain these documents for a minimum of three years after they are created.  49 CFR 673.5 Definitions  Definitions used in the PTASP and associated documentation must be consistent with CFRs, FTA, and	documents are retained for a minimum of three years after the documents are created?  Are the definitions of terms used in the PTASP consistent with 673, other FTA safety regulations, and the SSO Program Standard?	
		ixboi requirements.		
<b>TxDOT</b>	TxDOT SSO Requirements			
	PS Section 1.3	Allegations of Non-Compliance	Does the PTASP document the process and associated requirements related to TxDOT SSO's management of allegations of non-compliance?	

Does the PTASP document:

- Notification requirements?
- Key staff accountability/responsibilities?
- Required coordination with SSO?

			<ul> <li>Required submissions to SSO?</li> <li>Timelines and deadlines?</li> </ul>
M.2		SSOA Annual Report to FTA	Does the PTASP document the process and associated requirements related to TxDOT SSO's and the RTA's coordination on Annual Report to FTA requirements?  Does the PTASP document:  - Notification requirements? - Key staff accountability/responsibilities? - Required coordination with SSO? - Required submissions to SSO? - Timelines and deadlines?
Σ	PS Section 1.10	Public Transportation Safety Certification Training Program Does the PTASP document or incorporate by reference staff who are directly responsible for safety oversight and contractors assigned to specific safety responsibilities, such as conducting the annual Internal Safety Review.  Does the PTASP document:  - Notification requirements?  - Key staff accountability/responsibilities?  - Required coordination with SSO?  - Required submissions to SSO?  - Timelines and deadlines?	boes the PTASP document or incorporate by reference staff who are directly responsible for safety oversight and contractors assigned to specific safety responsibilities, such as conducting the annual Internal Safety Review.  Does the PTASP document:  - Notification requirements?  - Key staff accountability/responsibilities?  - Required coordination with SSO?  - Required submissions to SSO?  - Timelines and deadlines?
4.		Ensuring Safety in New or Modified Rail Systems	Does the PTASP document requirements for managing safety of new or modified rail systems? Requirements must include key tasks/actions and associated deadlines.  Does the PTASP document:  - Notification requirements?  - Key staff accountability/responsibilities?  - Required coordination with SSO?  - Required submissions to SSO?  - Timelines and deadlines?
Σ.	PS Section 5	Triennial Audits of RTAs	Does the PTASP document requirements for Triennial Audits conducted by TxDOT SSO?  Does the PTASP document:  - Notification requirements?  - Key staff accountability/responsibilities?  - Required coordination with SSO?  - Required submissions to SSO?  - Timelines and deadlines?
⊠ ⊠.6	PS Section 8.6	Monitoring of RTA Hazards and Safety Risk Mitigations	Does the PTASP document requirements for RTA and TxDOT SSO coordination and monitoring of RTA hazard?  Does the PTASP document:

<ul> <li>Notification requirements?</li> <li>Key staff accountability/responsibilities?</li> <li>Required coordination with SSO?</li> <li>Required submissions to SSO?</li> <li>Timelines and deadlines?</li> </ul>	Does the PTASP document requirements for RTA and TxDOT SSO coordination and monitoring of RTA corrective actions?  Does the PTASP document the TxDOT SSO Administrative Review process for when an RTA disagrees with a TxDOT decision on a corrective action?  Does the PTASP document:  - Notification requirements? - Required coordination with SSO? - Required submissions to SSO? - Timelines and deadlines?	Does the PTASP document the TxDOT SSO Escalation of Enforcement Action process?  Does the PTASP document:  - Notification requirements? - Key staff accountability/responsibilities? - Required coordination with SSO? - Required submissions to SSO? - Timelines and deadlines?	Does the PTASP document the TxDOT SSO Emergency Order to Address Imminent Public Safety Concerns process?  Does the PTASP document:  - Notification requirements?  - Key staff accountability/responsibilities?  - Required coordination with SSO?  - Required submissions to SSO?  - Timelines and deadlines?
	PS Section 9  43 TAC, Part 1, Ch 7, Subchapter E, Rule 7.93	PS Section 10 Escalation of Enforcement Action 43 TAC, Part 1, Ch 7, Subchapter E, Rule 7.92, 7.93, and 7.94	PS Section 10.1 Emergency Order to Address Imminent Public Safety Concerns Rule 7.95
	M.7	≅.8	M.9

# **Appendix E**

Accident Investigation Review Checklist

# **State Safety Oversight Program/Rail Transit Agency Accident Investigation Review Checklist**

**Objective**: Complete an independent review of investigation activities and reports to assure sufficiency and thoroughness, per Part 674.35, as well as conduct an independent review of the findings of causation.

Topic	Investigation Report Information
<b>General Safety Event Description</b>	
Rail Transit Agency (RTA)	
Investigation Report Number	
Date and Time of Safety Event	
Weather Conditions	
Short Description/Summary	
Safety Event Type, Reportable Criteria	
Location of Safety Event – include nearest station and	
location marker	
Rail line, direction, track number	
Train Identification (number of cars in consist)	
Casualties – Fatalities or Injuries, including location;	
follow-up	
•	
Notifications	
Internal RTA – divisions/departments, radio calls,	
digital messages	
SSO Program – how contacted, person, date, and time	
FTA – how contacted, date, and time	
NTSB – how contacted, report number, date, and time	
On-Call SSO Investigator	
Others	
Initiating Event and Response Descriptions	
Initiating Event Description – general description of	
the situation(s) that led up to the safety event	
occurring	
Response and Incident Command Description – who	
responded to the scene, transition of command – who	
and when relieved, when scene transitioned to Safety,	
and when relieved, when scene transitioned to Safety, when scene released for repairs and back to operations	
when scene released for repairs and back to operations	
when scene released for repairs and back to operations  Immediate Actions Taken	
when scene released for repairs and back to operations  Immediate Actions Taken  Description of what was done to mitigate the situation	
When scene released for repairs and back to operations  Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical	
when scene released for repairs and back to operations  Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing	
When scene released for repairs and back to operations  Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical	
when scene released for repairs and back to operations  Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date	
Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors	
When scene released for repairs and back to operations  Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors  Operator/Conductor Information, other employees	
Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors  Operator/Conductor Information, other employees involved in safety event or response	
Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors  Operator/Conductor Information, other employees involved in safety event or response  Drug & Alcohol Testing – describe who and when,	
Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors  Operator/Conductor Information, other employees involved in safety event or response  Drug & Alcohol Testing – describe who and when, note meeting the required timeframe, if applicable	
Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors  Operator/Conductor Information, other employees involved in safety event or response  Drug & Alcohol Testing – describe who and when, note meeting the required timeframe, if applicable  Fatigue Management – Hours of Service, previous	
Immediate Actions Taken  Description of what was done to mitigate the situation in the short term, anyone transported for medical attention or drug and alcohol testing  SSO Program Approval – reviewed, letter, date  Employee Human Factors  Operator/Conductor Information, other employees involved in safety event or response  Drug & Alcohol Testing – describe who and when, note meeting the required timeframe, if applicable	

Topic	Investigation Report Information
Investigation Data and Analysis	
Operator/Conductor Event Report	
Field Supervision Report	
Employee record/history	
Interviews (on-scene, off-scene)	
Police Activities/Report	
On-Scene Conditions Summary Description –	
vehicles, infrastructure, signals	
Post-Accident Safety Inspections – Vehicles,	
Infrastructure	
Inspection, Maintenance, State of Good Repair	
Analysis – vehicles, infrastructure	
Video Analysis/Review	
Event Recorder Analysis/Review	
Communications Analysis	
Pictures, drawings, measurements, and visual	
documentation	
Special technical services – metallurgy, analytical	
services	
Reconstruction of Safety Event	
Daniel Maria and Datamata Comita	
Damage/Maintenance, Return to Service	
Description of damage – vehicles, stations,	
infrastructure, facilities, signals, crossing gates, switches, track	
Labor and Material cost to bring system back to a	
state of good repair	
Status for the vehicles	
Status for infrastructure elements damaged	
Status for infrastructure elements damaged	
<b>Determination of Safety Performance and Need for</b>	Improvements**
Staff recognizing the event or potential event	J. O Tements
Following procedures/effectiveness of procedures	
Problem-solving – Rail Operator/Conductor, Field	
Supervision, Controllers	
Communication and coordination – Rail	
Operator/Conductor, Field Supervision, Controller(s)	
Process of securing the train/scene – problems or	
issues	
Safety performance of any Passenger/Patron	
Evacuation – Police, EMS, field supervision	
Process of return to service	
Safety Performance of others responding in the field	
Findings, Causal, and Contributing Factors	
List the findings, causal, and contributing factors	
Do the findings, causal, and contributing factors	
identified appear to be appropriate and complete?	
Recommendations and Corrective Actions	
List the Recommendations and Corrective Actions	
Do the recommendations appear to address all of the	
findings and factors?	
Are additional recommendations/corrective actions	
required to address issues reported in the	
investigation?	

Topic	Investigation Report Information
Reference Reports and Exhibits and Distribution	
List reports and exhibits related to the investigation	
report – For each document, list owner department or	
division, person if provided, and date completed	
List Requests for Information (RFIs) and Requests for	
Additional Information (RFAIs) required to complete	
this investigation review – Case Numbers, Drug and	
Alcohol testing information, information that was	
missing, any other interactions with the RTA to	
complete this review.	
Additional Remarks, Comments, and Observations	
Report Distribution List – was everyone that had a	
role in the investigation, approving management, or	
receiving recommendations included in the	
distribution?	
Independent Investigator Review	
Investigator Completing the Independent Review	
Date Review was Completed	
Affirmation of investigation sufficiency and	
thoroughness, and Concurrence with findings of	
causation [Electronic Signature]	

Note: Review of Findings, Factors, Recommendations, and Corrective Actions require the review of the other aspects of the investigation, safety performance during and after safety event, and potential improvements that should be considered to assure better response capabilities and/or potential for prevention in the future.

# **Appendix F**

**Two-Hour Notification** 



# **Two-Hour Accident Notification Guide**

The Federal Transit Administration's (FTA) <u>State Safety Oversight (SSO)</u> regulation (<u>49 C.F.R. Part 674</u>) establishes definitions and minimum notification thresholds for safety events. Part 674 defines three types of safety events: accidents, incidents, and occurrences, and requires a rail transit agency (RTA) to notify its State Safety Oversight Agency (SSOA) and the FTA within two hours of any event classified as an <u>accident</u>. This Two-Hour Accident Notification Guide is designed to help RTAs identify those events that are classified as accidents and how to notify FTA.

#### What is an "Accident"?

"Accident" means an 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." 49 C.F.R. § 674.7.

#### **Events**

# **Accidents**

An 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.

# Incidents

An Event that involves any of the following:

- a personal injury that is not a serious injury;
- one or more injuries requiring medical transport; or
- damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a rail transit agency.

## Occurrences

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

### What is the requirement to notify the SSO and FTA of an accident?

In addition to the requirements for accident notification set forth in an SSO program standard, an RTA must notify both the SSOA and the FTA within two hours of any accident occurring on its rail fixed guideway public transportation system. An RTA should provide accident notifications at the earliest practicable time after the occurrence of any one of the defined accidents and no later than two hours after the accident has occurred.



# How do I notify FTA of an accident?

Contact the U.S. Department of Transportation's Transportation Operations Center (TOC) formerly known as the Crisis Management Center (CMC) within two hours of a reportable accident, by email (recommended method) or phone:

## TOC-01@dot.gov/ 202-366-1863

**Note:** The old CMC email address of <u>CMC-01@dot.gov</u> is still an active address and will send the notifications to the TOC. During your next review and revision of any related programs or forms, please replace the old CMC email address with the new TOC email address.

When providing two-hour notifications, please submit accident information details as specified in your SSOA's program standard. The SSO required notifications may include, but are not limited to, a summary of the event and pertinent details such as:

- Accident date, time, location, and name of the Rail Transit Agency (RTA) providing the notification
- When RTA has more than one rail mode, providing the rail mode and/or line involved in the accident (Heavy Rail/Subway, Light Rail, Streetcar, etc.)
- Number of fatalities, serious injury, persons requiring immediate medical transport
- After an RTV related collision was there substantial damage or towing of RTV or POV
- Primary and secondary event types (e.g. collision, derailment, fire, etc.)

#### FREQUENTLY ASKED QUESTIONS

# How do I classify an event that includes multiple accident types?

When an event includes multiple accident types, in your notification, please classify the accident type as the accident that occurred first.

#### Example 1:

If a streetcar collides with a truck and subsequently derails, the accident would be classified as a collision, because the derailment was a result of the collision.

#### Example 2:

If a train collides with a person and results in a fatality, the accident would be classified as a collision, because the fatality was a result of the collision.

#### Must I provide notification of a loss of life that results from natural causes or homicides?

You must only provide two-hour notification of loss of life (fatality) that occur on a transit property or are related to transit operations or maintenance. This requirement excludes deaths resulting from illness or other natural causes and criminal homicides that are not related to collisions with a rail transit vehicle.



# Must I provide notification of a serious injury that results from natural causes or criminal assaults?

Serious injury is defined at 49 C.F.R. § 674.7 as any injury that:

- 1. Requires hospitalization for more than 48 hours, commencing within 7 days from the date 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; Involves any internal organ; or
- 4. Involves second- or third-degree burns, or any burns affecting more than five percent of the body surface.

You must only provide two-hour notification of serious injuries that occur on a transit property or are related to transit operations or maintenance. This requirement excludes serious injuries resulting from illness or other natural causes and criminal assaults that are not related to collisions with a rail transit vehicle.

Some injuries may be readily identified or observable at the scene of an event while other injuries may not be apparent until the person undergoes a medical examination, at which point notification may be required. FTA does not expect SSOA or RTA safety personnel to undergo medical training to determine whether an injury meets the threshold of "serious." However, FTA does expect safety personnel to exercise a common-sense approach when evaluating injuries.

#### What types of collisions require two-hour notification?

You are required to provide two-hour notification of all collisions involving two or more rail transit vehicles, and all collisions involving at least one rail transit vehicle at grade crossing, with a person, or with an object that results in substantial property damage, serious injury or fatality. See Appendix A to Part 674.

#### What is "substantial damage"?

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

Substantial damage includes damage which adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation. See National Transit Database glossary.<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> The NTD glossary is available at https://www.transit.dot.gov/ntd/national-transit-database-ntd-glossary.



Substantial damage excludes damage such as cracked windows, dented, bent or small punctured holes in the body, broken lights, mirrors, or removal from service for minor repair or maintenance, testing, or video and event recorder download.

# What is a "runaway train"?

The NTD glossary defines "runaway train" as a train that is no longer under the control of a driver regardless of whether the operator is physically on the vehicle at the time. This requirement is only applicable to trains and not all rail transit vehicles.

### What is an evacuation for a life safety reason?

An evacuation for a life safety reasons is a condition that occurs when persons depart from transit vehicles or facilities for life safety reasons, including self-evacuation. A life safety reason may include a situation such as a fire, the presence of smoke or noxious fumes, a fuel leak, a vehicle fuel leak, an electrical hazard, a bomb threat, a suspicious item, or other hazard that constitutes a real potential danger to any person. See NTD glossary.

Do not provide Two-Hour Accident Notifications for evacuations that are not for a life safety reason such as an evacuation of a train into the right of-way or onto adjacent track; or customer self-evacuation or transfer of passengers to rescue vehicles or alternant means of transportation due to obstructions, loss of power, mechanical breakdown and system failures, or damage.

# What is a "derailment"?

A derailment is a non-collision event in which one or more wheels of a rail transit vehicle unintentionally leaves the rails. See NTD glossary.

Two-Hour Accident notification is required anytime there is the derailment of a rail transit vehicle at any location, at any time, whatever the cause.

#### What are the notification requirements for RTAs that are also regulated by the FRA?

Federal Railroad Administration (FRA) notifications – Anytime an RTA must notify the FRA of an accident as defined by 49 CFR Part 225.5 (i.e. shared use of the general railroad system trackage or corridors), the RTA must also notify the SSOA and FTA of the accident within the same time frame established by the FRA.

# **Appendix G**

Risk-based Inspection Program



# Risk-based Inspection Program

August 7, 2024

TxDOT State Safety Oversight Program

Public Transportation Division

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#### Introduction

The Texas Department of Transportation (TxDOT) State Safety Oversight (SSO) Risk-based Inspection Program (RBI Program) uses qualitative and quantitative data monitoring and analysis to detect changes in rail transit agency (RTA) safety performance, shifts in risk, and adherence to maintenance, inspection, and safety policies.

This RBI Program document contains the policies and procedures jointly developed between TxDOT and RTAs and follows the Federal Transit Administration (FTA) RBI Toolkit format as follows:

Category 1: Authority to Perform Risk-Based Inspections

Category 2: Risk-Based Inspection Policies and Procedures

Category 3: Data Sources and Collection

Category 4: Inspection Prioritization

Category 5: Risk-Based Inspection Commensurate with Number, Size, and Complexity of RTAs

Category 6: SSO Staffing, Qualifications, and Training

TxDOT's policies are provided in Categories 1-6 and the procedures describing the implementation of the RBI Program are provided in the individual rail agency specific sections of this document. Combined, the TxDOT Policies and unique RTA Procedures explain how TxDOT, and the rail agencies will implement the risk-based inspection program.

## Infrastructure Investment and Jobs Act

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act (IIJA), which provided funding additional funding for infrastructure and enhanced the public transportation safety program requirements. The BIL amended 49 U.S.C § 5329 to require State Safety Oversight Agencies (SSOA) to perform risk-based inspections of the RTAs that the states oversee. The BIL also added a provision directing FTA to issue a Special Directive to each SSOA on the development and implementation of risk-based inspection programs.

#### FTA Special Directive 22-47 and the Risk-based Inspection Toolkit

On October 21, 2022, FTA issued Special Directive 22-47, under authority of 49 U.S.C. § 5329 (k) and 49 CFR Part 670, requiring TxDOT, as the SSOA for the State of Texas, to develop and implement a risk-based inspection program by October 2024.

To assist SSOAs in development of risk-based inspection programs, FTA developed a risk-based inspection toolkit in October 2022. The toolkit is a guide to help SSOAs address the necessary components of risk-based inspection programs.

Currently, the TxDOT SSOA oversees six RTAs subject to the provisions of the SSO program:

#### **Rail Transit Agencies in Texas:**

Galveston Island Trolley	3115 Market St. Galveston, TX 77550		
Dallas Area Rapid Transit	1401 Pacific Ave. Dallas, TX 7520		

Metropolitan Transit Authority of Harris County	1900 Main St. Houston, TX 77208	
Dallas Streetcar	City of Dallas 1500 Marilla St., Room L1BS Dallas, TX 75201	
McKinney Avenue Transit Authority	3153 Oak Grove Ave. Dallas, TX 75204	
El Paso Streetcar	Transit Operations Center 10151 Montana Ave. El Paso, TX 79925	

# **Category 1: SSO Authority**

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

#### Senate Bill 1523

During the 85th Regular Legislative Session, S.B. 1523 was enacted on June 1, 2017. This statute provides TxDOT with the authority to establish and enforce minimum standards of safety for rail agencies 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.

#### **Texas Administrative Code**

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. It provides a legal framework, consistent with the Program Standard, for each RTA in Texas to follow to create, implement, and administer FTA and TxDOT SSO program requirements, including risk-based inspections.

TxDOT SSO's Texas Administrative Code demonstrating necessary risk-based inspection authorities was updated in April 2024 and is included in Appendix 8 of this document.

# **TxDOT SSO Program Standard**

The TxDOT SSO Program Standard describes the roles and responsibilities of TxDOT and each RTA for implementing State Safety Oversight program requirements. Annually, by August 31st, the TxDOT SSO Program Standard will be reviewed and updated. All RTAs are provided an opportunity to propose revisions and to review and comment on TxDOT's proposed changes.

Upon FTA approval of TxDOT's Risk-based Inspection Program, TxDOT will update the Program Standard to incorporate the TxDOT RBI Program into the Program Standard. The current TxDOT SSO Program Standard is located at: https://www.txdot.gov/business/resources/rail-safety/state-safety-oversight-program.html

# **Category 2: Risk-Based Inspection Policies and Procedures**

TxDOT, in consultation with each RTA, developed policies and procedures to detail the process used to access RTA property and data, and to assess and prioritize risk necessary to conduct inspections, both with and without notice. TxDOT's over-arching RBI policies are described below, and RTA specific procedures are provided as part of each RTA's procedures. Combined, the TxDOT Policies and the RTA-specific procedures explain how TxDOT, and each RTAs will implement the risk-based inspection program.

# Category 2(a): RTA Access Policies

# **Notifications to the RTA to Conduct Inspections**

TxDOT will conduct at least four inspections per year at each rail agency. TxDOT may conduct additional inspections, both with and without notice, as determined by TxDOT's data analysis, risk prioritization process, and other ongoing monitoring processes.

#### **Inspections With Notice Notifications**

Inspections with notice will occur with 1 calendar day or more notice. TxDOT's Lead Inspector will notify the RTA's designated personnel via email to conduct an inspection with notice. The notification will include the inspection agenda, purpose, risk prioritization, date, time, locations, data needed for inspection, requested escorts, and RTA staff requested to attend.

TxDOT will abide by each RTA's property access procedures, which includes track allocation processes and timelines to access areas that require adherence to track allocation procedures. Although TxDOT may schedule inspections with 1 calendar day or more notice, TxDOT prefers to provide adequate time to allow TxDOT and the RTA to prepare for inspections. In instances when track allocation is needed for an inspection with notice, TxDOT will coordinate track access through each rail agency's track allocation process, which could require up to 7 calendar days advance notice.

Whenever practicable and as determined by the inspection purpose and assessed risk, TxDOT will seek to minimize disruptions to the rail agency. Minimizing service disruptions may include conducting inspections outside of peak revenue service hours during times such as non-peak hours, overnight hours, or non-revenue service hours. TxDOT may also consider utilizing foul-time during revenue operations if inspection activities can be completed safely within allotted foul-time authorization at each agency. Depending on the rail agency, utilization of foul-time maybe by limited to 15 to 30 minutes on the right of way.

Inspections with notice may require TxDOT to request data during the inspections in addition to requesting data prior to the inspection. TxDOT will coordinate data requests to allow adequate time for the rail agency to provide the requested data. Depending on inspection purpose, TxDOT may request data submission up to 10 calendar days prior to the date of the inspection. TxDOT will seek a mutually agreeable data submission date determined by the inspection purpose, assessed risk, and level of effort needed to compile and submit requested data.

Inspections with notice must begin within 15 minutes of the scheduled time. If the RTA is unable to provide track allocation or required escorts for an inspection with notice, then TxDOT may consider delaying the inspection while track allocation or escort issues are resolved. TxDOT requires rail agencies

to make good faith efforts to promptly resolve all issues with the potential to delay inspections. Repeat issues in beginning announced inspections at the scheduled date and time could result in Administrative Action as described with Section 7.92 of the Texas Administrative Code and Escalation of Enforcement Action as described in Section 7.94 of the Texas Administrative Code.

#### **Inspections Without Notice Notifications**

Inspections without notice will occur with no notice to the rail agency. Upon arrival at the RTA property, TxDOT's Lead Inspector will provide notice of TxDOT's unannounced inspection to the agreed upon RTA personnel. TxDOT's notification will occur onsite, at any RTA location. The notification will include an agenda stating inspection purpose, risk prioritization, date, time, locations, requested escorts, and RTA staff requested to attend. Specific notification procedures, including personnel and contact methods are noted within the procedures for each individual rail agency.

Upon notification of an inspection without notice, the rail agency staff must accommodate TxDOT's request as follows.

- Within 15 minutes of TxDOT inspection notification, RTA personnel must begin implementing RBI procedures including informing agency staff and mobilizing required staff and resources.
- Within 2 hours of TxDOT inspection notification, RTA personnel must be present and ready to begin inspection activities in accordance with RBI procedures. This may include designating escorts, securing track allocation, including foul-time or emergency allocation, and providing mobile or stationary work zones in compliance with the agency roadway worker protection requirements.
- TxDOT's Lead Inspector may allow additional mobilization time to allow RTA staff to deal with extenuating circumstances beyond their control.

TxDOT understands that rail agencies may need additional time to provide required staff, gather needed documentation, equipment, protective gear, secure track access, and travel to the designated muster point. TxDOT may allow reasonable additional time to safely mobilize and begin an inspection.

Inspections require TxDOT to strictly adhere to the agreed upon inspection procedures and timeframes.

#### **Commencing Inspections:**

TxDOT risk-based inspections must begin no later than 2 hours after TxDOT inspection notification.

If an RTA is unable to begin an inspection within 2 hours of notification, then TxDOT may:

- invoke Texas Administrative Code Section 7.95 Emergency Order to Address Imminent Public Safety Concerns to remove from service affected infrastructure, equipment, facilities, or personnel until TxDOT can inspect those items. Or,
- initiate Administrative Actions as defined by Texas Administrative Code Section 7.92 to resolve issues causing non-compliance with risk-based inspection procedures and timeframes. Continued risk-based inspection non-compliance may also result Escalation of Enforcement Action (Texas Administrative Code Section 7.94) which may include rescinding Public Transportation Agency Safety Plan approval and halting operation of the agency's rail fixed guideway system.

#### **Access to RTA Properties**

Rail agencies must provide TxDOT SSO personnel, including project contractor staff, full access to infrastructure, equipment, records, facilities, data, and personnel through key, key card, badge, or code. Access details for each rail agency are noted within the procedures for each individual agency.

#### **Inspections of Publicly Accessible Areas**

TxDOT may conduct inspections of publicly accessible areas without notice to the RTAs. Examples of publicly accessible areas include stations, platforms, vehicles in revenue service, roadways, sidewalk, park, walkway, or other areas open to the public. At its discretion, TxDOT may provide notice to the RTA of inspections of publicly accessible areas and may invite RTA personnel to accompany TxDOT on the inspection.

#### **Access Procedures and Escorts**

TxDOT SSO personnel, including TxDOT SSO support contractor staff, will have full access to rail agency infrastructure, equipment, records, facilities, data, and personnel through key card, key, or code. TxDOT requires an escort when accessing non-public areas of RTA property, including hazardous or security sensitive areas. TxDOT will not attempt to access RTA property, including hazardous or security sensitive areas, without an escort. Specific details covering access procedures and escorts are provided in the individual RTA procedures section of this document.

Hazardous areas may include, but not limited to, right-of-way, maintenance yards or storage yards, tunnels, bridges, aerial structures, electrical infrastructure, and confined spaces. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations or police activity associated from safety events.

When arriving at RTA's property, TxDOT staff will gather at a safe location as agreed upon in the rail agency specific access procedures, which generally will be a main entrance, reception area, or security desk of the area to be inspected. After providing the notification of inspection, TxDOT's Inspector(s) will await an RTA escort at the designated locations

In the event an RTA cannot provide an escort as agreed to in the procedures, TxDOT may consider allowing additional time for the RTA to provide an escort. TxDOT may invoke authorities necessary to cease operation (Emergency Order under TAC 7.95) until an escort is available and the inspection is completed.

#### **Certification and Training of Inspection Personnel**

TxDOT will comply with all safety procedures established by both TxDOT and the individual RTAs for conducting inspections of RTA properties. The SSOA will ensure that all personnel conducting inspections have been trained to perform their assigned tasks and certified according to RTA specification to safely access RTA properties and alignments. TxDOT will document and abide by all RTA access requirements when conducting inspections on track, tunnels, bridges, arial structures, and electrical infrastructure. The specific safety and training details for accessing each RTA property and conducting inspections is provided in the individual RTA procedures and documented within TxDOT's Technical Training Plan.

# **Category 2(b): Inspection Practices**

#### **Inspections Scheduling and Timeframes**

TxDOT will schedule a minimum of four inspections with notice per year at each RTA. Inspections are scheduled as part of a two-year cycle with one inspection with notice occurring each calendar quarter. TxDOT may conduct additional inspections, both with and without notice, as determined by TxDOT's risk prioritization process.

TxDOT's Lead Inspector will provide an inspection notification to the CSO and other designated RTA personnel for both inspections with notice and without notice. The notification will include an agenda containing:

- Inspection purpose
- Prioritization assessment (with notice or without notice)
- TxDOT Inspector Team Lead and other TxDOT personnel,
- Functional areas or locations to be inspected,
- Department or staff participation needed for the inspection,
- Description of what records or other materials will be required during the inspection, and
- Request for RTA escort, if needed.

TxDOT will provide notification according to the timeline as follows:

- Inspection with notice requests will be provided with at least 1 day notice. However, TxDOT will seek to provide reasonable advance notice depending on the prioritization of the inspection.
- Inspection without notice notifications will be delivered onsite with no advance notice.
- TxDOT may conduct inspections of publicly accessible areas without notice to the RTAs.

TxDOT understands inspections of track, signals, overhead contact, tunnels, bridges, or aerial structures require adherence to track allocation processes specific to each RTA. TxDOT may seek foul-time, emergency track access, or may invoke authorities necessary to cease operation (emergency order under TAC 7.95) to gain access to complete inspection activities.

#### **Inspection Reports**

Within 30 calendar days of inspection completion, the TxDOT SSO Program Managers or designated SSO Support Contractor will email an inspection report draft to the designated RTA staff for review. Inspection reports will aggregate the inspection activities into one report. Reports will use objective language and reference objective data to document the inspection.

The RTA will have 10 calendar days to review and comment via email. TxDOT will review any RTA comments and send the final report via email to the RTA no later than 10 calendar days after the RTA's deadline to comment on the draft inspection report. TxDOT will upload the final Inspection Report into the RBI Module within the SSO Tracker system. A copy of the inspection report template is included as Appendix 2.

At a minimum, the report will include:

- Date and time of inspection activities,
- TxDOT SSO and RTA personnel present,

- Inspection purpose, type, functional area, and locations or items inspected,
- Description of issues or deficiencies noted, including immediate safety concerns.
- Recommendations,
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required which may include remedial actions.

#### **Inspection Personal Protective Equipment**

TxDOT inspectors will abide by RTA, TxDOT, and Contractor personal protective equipment requirements while conducting inspections. Requirements generally include the following items, with RTA specific requirements noted within the inspection procedures for each RTA.

- 1) Name badges,
- 2) Roadway Worker Protection training certificate or card,
- 3) steel-toe,
- 4) appropriate clothing for inspection to be completed,
- 5) RTA approved safety vests
- 6) protective eyewear,
- 7) hearing protection,
- 8) gloves, and
- 9) hardhats/bumps CAPs.

#### **Immediate Safety Concerns**

Each member of the TxDOT Inspection team can raise an immediate safety concern at any point in the planning, preparation for, or conducting of an inspection. TxDOT SSO defines an immediate safety concern as any real or potential condition, practice, or violation that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a rail fixed guideway public transportation system; or damage to the environment.

If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present, which may include not entering the inspection area, pausing the inspection, or departing the inspection area until the safety concern is resolved.

Examples of safety concerns may include, but not limited to:

- a. Security concerns such as criminal activity, suspicious person and/or package, or unsafe location,
- b. Inclement weather or threat of inclement weather,
- c. Personnel conduct including disregard for rules, safety procedures or suspected fatigue or impairment,
- d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including but not limited to:
  - i. Rail defects, track related damage, or obstructions.
  - ii. Overhead contact damage, malfunction, or other observed safety concern
  - iii. Signal related damage or malfunction,
  - iv. Vehicle damage or component malfunction
  - v. Facility safety concerns such as fire, electrical, or other life/safety concerns
- e. Any other concern judged by inspection personnel as an immediate safety concern.

TxDOT Inspection team members who observe an immediate safety concern will notify the TxDOT Lead Inspector, who will then notify the RTA escort. The TxDOT Lead Inspector will initiate a safety pause to begin evaluating the safety concerns and required next steps. Depending on the circumstances, the Lead Inspector or RTA escort may need to notify train control, dispatch, law enforcement personnel, or the safety department. The TxDOT Lead Inspector will work together with RTA staff to ensure personnel are physically safe and appropriate personnel are notified as described in the RTA specific procedures.

If the inspection cannot safely continue, then the TxDOT Lead Inspector or the RTA may cancel the inspection. Inspections cancelled for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete, depending on how much of the inspection was accomplished prior to the safety concern, or may re-schedule the inspection soon as practical to complete the inspection.

If the inspection can safely continue, then the TxDOT Lead Inspector will document and photograph the safety concerns observed and discuss the issue with the RTA personnel present. At the conclusion of the inspection, the TxDOT Lead Inspector will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard.

The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

#### Inspections of Equipment, Infrastructure, Personnel & Practices Specific to Each RTA

TxDOT may inspect all infrastructure, equipment, locations, records, personnel, and data of rail systems under the safety oversight of TxDOT State Safety Oversight Program. Any property or personnel (employee or contractor) performing work related to the agency's rail system could be subject to inspection. The RTA specific procedures will define the equipment and infrastructure present (broad) and the inspection frequencies and practices (specific) of each RTA.

#### **Event Verification**

TxDOT and RTAs coordinate throughout the accident investigation process as described in the TxDOT SSO Program Standard, Section 7: Accident Investigation. The following section summarizes how TxDOT oversees investigations and conducts event verification as it relates to the RBI program.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and thoroughness of RTA completed accident investigations. TxDOT reviews the RTA's findings of causation and determines if a corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes events individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal

characteristics. These metrics aid in understanding causal and contributing factors, and guide identification of hazards and safety risk that may require action through corrective actions or mitigations.

TxDOT also requires RTAs to provide information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair needed to return damaged items to service. TxDOT verifies repairs and return to service through review of documentation which may include work orders, repair summaries, photographs, or other documentation. TxDOT may also verify repairs and return to service processes damaged items as part of inspection activities, both with and without notice.

#### **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assessed each RTA to determine the functional areas based on infrastructure, equipment, facilities, and procedures in use at each system. TxDOT then divided the functional areas into a two-year cycle with one functional area planned for inspection each calendar quarter. Sample functional areas are noted below.



TxDOT maintains a monitoring inspection calendar, which is created no later than 90 calendar before the start of the two-year period. TxDOT and the RTA will coordinate to ensure each required quarterly inspection with notice is planned, scheduled, conducted, and documented according to the agency specific RBI procedures. TxDOT may also utilize additional inspections with and without notice as determined through TxDOT's risk prioritization process.

In addition to ongoing inspections with notice throughout the two-year period, TxDOT conducts monthly conference calls to discuss events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items. Additional monitoring activities include oversight of the internal safety review process and SSO conducted triennial audits.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitoring efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination through on-going monitoring or coordination. Key

monitoring activities, including inspections performed are tracked and reported as part of TxDOT SSO's Annual Status Report.

#### **Defects and Corrective or Remedial Actions**

TxDOT will monitor RTA defects, corrective action and remedial action detection, tracking, and resolution as part of the RBI process. TxDOT will track significant defects by instance and severity to ensure each RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also require documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

## **Corrective Action Plan and Safety Risk Mitigation Verification**

TxDOT routinely coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

#### **CAP Verification**

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from:

- investigations,
- risk-based inspections,
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures, or
- FTA or SSO direction.

The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT close a CAP once the agreed upon actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, attached documentation, uploaded pictures, or onsite review verifying completion.

#### **Safety Risk Mitigation Verification**

The Program Standard, Section 8.6 Monitoring of RTA Hazards requires RTAs to submit monthly hazard logs that summarize safety risk mitigation information including:

- Date issue discovered.
- Summary or description of safety risk, including location.
- Assessment including probability of occurrence and severity of consequences.
- Responsible RTA department or employee tasked with resolving the issue.
- mitigations or corrective actions implemented.
- Status of hazard or risk resolution (open or closed).

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative nature such as policy, procedure, and documentation improvements may be monitored and verified through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure may be verified through a combination of documentation reviews and onsite inspections. Mitigations and corrective actions involving implementation operations, maintenance, or safety practices may be monitored through observation-based inspections.

TxDOT may verify safety risk mitigations and corrective action implementation at any time. However, TxDOT may select completed safety risk mitigations and CAPs to be verified as part of each regularly scheduled guarterly RBI inspection with notice.

# **Category 3: Data Sources and Collection**

# Category 3(a): RTA Data Sharing

TxDOT requires RTAs to submit already collected data needed to conduct quantitative and qualitative data analysis to detect changes in RTA safety performance, shifts in risk, and assure adherence to operation, maintenance, and safety policies.

Agencies will submit data used for the identification and assessment of safety risk, which will involve submission of monthly safety data and quarterly maintenance and inspection data used for the identification and assessment of safety risk.

Category 5 describes the differences in size and complexity between light rail and streetcar systems, and how those differences are factored into the RBI policies and procedures. Regardless of size of complexity, RTA data submissions for both light rail and streetcar systems will encompass the full spectrum of RTA activities including safety management, maintenance, inspection, and other safety activities as outlined in the RBI toolkit.

RTA data sets may contain, but not limited, to the data from the categories listed below. The RTA specific data required from each RTA as part of the data used to identify hazards and analyze, assess, and mitigate safety risk is explained within each RTA's RBI Procedures.

#### **Safety Program Data**

- Events, including accidents and incidents.
- Hazard records, including RTA internal hazards and SSO reportable hazards.
- Safety risk mitigation records.
- Corrective action plans.
- Records of near misses.

#### **Maintenance Data**

- Inspection and maintenance records and report forms.
- Work orders.
- Records of failures and defects.
- Records of revenue vehicles out of service.
- Major maintenance activity schedule and progress.
- Adherence to maintenance schedules, including deferred maintenance.

#### **Inspection Data**

- Inspection records and report forms.
- Records of failures and defects.
- Records of speed restrictions.
- Safety event risk mitigation verification.
- Adherence to inspection schedules, including inspections not performed.
- Capital project schedules and progress.

# Category 3(b): Additional Safety Data

RTA specific data required from each RTA as part of the data used to identify hazards and analyze, assess, and mitigate safety risk is explained within each RTA's RBI Procedures. Additional safety data may include, but not limited to:

#### **Additional Safety-related Data**

- Annual report data,
- Audits,
- National Transit Database (NTD) data,
- Safety Assessment,
- Engineering assessments
- Patron and Customer feedback and complaints,
- Security data

The specific additional safety data required from each RTA is contained within each RTA's procedures.

# Category 3(c): RBI Data Management System

TxDOT has used an SSO data management system (SSO Tracker) since 2019 to effectively administer the SSO Program. The SSO Tracker system will be expanded to serve as an RBI hub for TxDOT and the RTAs. As of May 2024, TxDOT SSO is in negotiations with a safety data management vendor that will assist TxDOT in the design, configuration, testing, and on-going support of the expanded SSO Tracker system.

The SSO Tracker system will have an RBI module to be used for the submission of data, documenting inspection prioritization, and maintaining inspection reports. The RBI module is in addition to the accident, hazard, corrective action modules used for SSO and RTA ongoing coordination and management of those areas.

The SSO Tracker system is compliant with the Texas Risk and Authorization Management Program (Tx-RAMP), which defines the processes, procedures, and compliance requirements relating to the use of cloud computing services by Texas state agencies. The SSO Tracker System is designed as a Level 2 system which is the highest level of security, meaning the system can safely store data defined as confidential within 1 Texas Administrative Code Section 202.1. Examples of confidential data includes names, dates of birth, license plate data, sensitive personal information, regulated data, and information excepted from disclosure requirements of Government Code Chapter 552, such as SSO investigation reports.

In limited circumstances, RBI Program documents or records may be transmitted via email. TxDOT's Information Technology Division maintains email systems in accordance with email security best practice standards including proactive malware and spam detection, multifactor authentication, and email user training. RBI documents transmitted via email may include, but are not limited to, inspection notifications, inspection report reviews, safety concern notifications, and correspondence documents. The TxDOT SSO team will ensure key RBI documents are uploaded into the SSO Tracker System RBI module.

TxDOT procedures for data organization and storage will define procedures for the following data elements:

#### How data sets will be stored and used for analysis:

TxDOT will store data sets in the SSO Tracker system and data will be accessible by TxDOT, contractors, and RTA staff. TxDOT will use the data sets submitted for inspection prioritization purposes as described in the Inspection Prioritization section of this document.

#### Where the data sets will be stored:

The RTAs will upload their data into the SSO Tracker system. TxDOT will upload items such as prioritization analysis, inspection agendas, and inspection reports into the SSO Tracker RBI module.

RBI data within the SSO Tracker system will be viewable by TxDOT and the RTA staff. If corrective actions result from an inspection, then those corrective actions will be associated with the inspection and will be managed within the SSO Tracker system.

#### How the data will be organized:

The RBI data is organized by RTA, year, and quarter. The data is further organized by data type including safety, maintenance, inspection, and other safety data. Other data such as prioritization analysis, inspection agendas, and inspection reports will be associated by the RTA and by date completed.

#### How long records must be retained:

TxDOT must retain RBI data for 3 years in accordance with 49 CFR 674. Training records must be retained for 5 years in accordance with 49 CFR 672.

#### How and when records are disposed:

RTA RBI data must be retained for 3 years in accordance with 49 CFR 674, and TxDOT training records must be retained for 5 years in accordance with 49 CFR 672. Records are disposed of in accordance with TxDOT records retention and disposition polices, which includes coordination with the Public Transportation Division Records Coordinator to ensure compliant record retention and disposal.

#### How the SSOA will ensure the system is maintained:

The TxDOT SSO Program staff will maintain the SSO Tracker system. The Public Transportation Director of Administration and Program Support assures the system is maintained through supervision of the Transit Safety Manager. Though not anticipated, TxDOT can seek system maintenance assistance from the TxDOT Technology Division (ITD) or the vendor that provides the SSO Tracker system to TxDOT.

#### How the SSOA will ensure the system accurately stores records:

The SSO Tracker system maintains data submitted into the system. TxDOT can prevent users from modifying submitted data. In addition, the system allows for activity logs to be generated to audit user actions within the system. The data stored in the RBI module, including data sets, risk prioritization, and inspection reports and will be accessible by TxDOT, contractors, and the RTA staff. These items can be reviewed, and this level of transparency will allow both TxDOT and RTAs to ensure the RBI program is administered accurately and in accordance with the jointly developed RBI Program policies and procedures.

# **Category 4: Inspection Prioritization**

# **Category 4(a): Prioritization of Safety Concerns to Inform Inspections**

TXDOT will prioritize inspection activity through analysis of safety, maintenance, and inspection data each RTA uses to identify hazards and analyze, assess, and mitigate safety risk as required in 49 U.S.C. § 5329(k)(2).

In general, rail agencies will submit monthly safety data and quarterly maintenance and inspection data for TxDOT's data analysis and prioritization processes. TxDOT will convene a Safety Risk Management Committee to use qualitative and quantitative methods to identify safety concerns and prioritize inspections so that the highest risk conditions are addressed first.

The RTA specific data required from each RTA used to identify hazards and analyze, assess, and mitigate safety risk is explained within each RTA's RBI Procedures. TxDOT's prioritization process including data metrics are described below.

#### **Safety Data Metrics:**

TxDOT may use the following safety data metrics to prepare data for analysis and inspection prioritization.

#### **Accidents and Incidents:**

- Number of events.
- Safety Event Type (Accident, Incident, or Occurrence).
- Location (line, crossing, station, facility, etc.)
- Vehicle identification number and operator number.
- Date and Time (year, month, day, and time).
- Probable cause and contributing factors.
- Heat maps.

#### **Hazard Records:**

- Number.
- Type (organizational, environmental, or technical).
- Location (if applicable).
- Date and Time (day, month, year).
- Assessment data (probability and severity).
- Causal and contributing factors.
- Time to resolution/closure.

#### **Safety Risk Mitigation Records:**

- Number.
- Source (event, audit, inspection, etc.)
- Causal factors and contributing factors.
- Status (open or closed).
- Time to resolution/closure.

#### **Corrective Action Plans:**

- Number.
- Source of CAPs (Event, Audit, Inspection, etc.)
- Area requiring correction.
- Causal factors.
- Status (open or closed).
- Time to resolution/closure.

#### **Near Miss Records:**

- Number.
- Location (line, crossing, station, facility, etc.)
- Date and Time (year, month, day, and time).
- Probable cause and contributing factors.
- Heat maps.

# **Inspection and Maintenance Data Metrics:**

TxDOT may use the following inspection and maintenance metrics to prepare data for analysis and inspection prioritization.

#### Adherence to Maintenance and Inspection Requirements:

- Planned inspections vs completed inspections by item (vehicle, system, facility, etc.)
  - Mileage, time-based, and condition-based
- Planned maintenance vs completed maintenance (vehicle, system, facility, etc.)
  - Mileage, time-based, and condition-based

#### **Significant Defects and Failures Identified:**

- Total count.
- Defect and Failure type.
- Vehicle number or physical location.
- Assessment data (probability and severity).
- Status (open or closed).
- Time to resolution/closure.

#### Work Orders and Defect Repair:

- Total count
- Work order or defect type
- Repair type

- Vehicle number or defect location
- Assessment data (probability and severity)
- Status (open and closed)
- Time to resolution/closure

#### **Vehicles Out of Service:**

- Total count
- Vehicle number
- Reason for out of service
- Time out of service (date out of service and date returned to service)

### **Speed Restrictions:**

- Total count
- Location
- Reason for speed restriction
- Date speed restriction began
- Date speed restriction to end

#### **Capital Project List and Progress**

- Total Count
- Project summary
- Project status

#### **TxDOT Identified Deficiencies:**

- Total count
- Source
- Deficiency type (organizational, environmental, or technical)
- Vehicle number or physical location
- Assessment data (probability and severity)
- Time to resolution/closure

# **Recurring Deficiencies:**

- Total count
- Source
- Frequency or recurrence

#### **Inspections Conducted:**

- Total count
- Type (with notice, without notice)

#### **TxDOT Prioritization Committee**

TxDOT utilizes a Safety Risk Management Committee (SRM Committee) to review rail agency data and safety performance to categorize safety concerns for inspection decision-making purposes. The SMR

Committee is made up of TxDOT SSO staff and SSO Support Contractors, including subject matter experts with expertise in rail infrastructure and operation. The Risk Prioritization Committee Charter, provided as Appendix 3, states the committee's purpose and responsibilities in the risk prioritization process.

The SRM Committee will meet at the following intervals:

- Annually for streetcar systems,
- Semi-annually for light rail systems, and
- As needed determined by ongoing monthly monitoring of RTA safety data.

The SRM Committee will review each agency's data and safety performance, including:

- Review RBI data and metrics (RTA dashboard)
- Assess risk revealed through metrics and data analysis (probability and severity)
- Prioritize/rank risk for inspection decision-making purpose, (prioritization)
- Document committee recommendations and decisions (documentation).

SRM committee meetings will review of safety, inspection, and maintenance data and associated metrics to determine potential consequences and frequency data. Next the safety risk will be discussed and rated using TxDOT's assessment methodology. The committee will compare the highest rated safety risks for each category including safety data, inspection data, and maintenance, using quantitative and qualitative data, including professional judgement, to determine which safety risk will be prioritized highest.

The safety risk rated as the highest, combined with SRM Committee input, will determine risk resolution methods, which may include inspection, both announced or unannounced, the timeline for inspection, and inspection methods utilized.

#### **Inspection Prioritization Process**

TxDOT will prioritize inspections based on assessed risk as determined by likelihood of occurrence and severity of consequence. Likelihood and severity of consequence ratings will be combined within a Risk Assessment Matrix to arrive at an assessment rating. The assessment rating is compared to Resolution Guidance to aid in risk resolution decision-making. The SRM Committee will consider the risk assessment results in relation to other previous and current risk and determine required actions and associated timelines.

#### Likelihood of Occurrence

The likelihood of a particular safety risk occurring may be determined by estimating, based on best available information, the most probable frequency the risk occurs or is expected to occur. The SRM Committee will assess safety risk likelihood using the time/frequency measurements described below.

Likelihood			
Description	Probability		
Continual (A)	Weekly basis		
Frequent (B)	Monthly		
Occasional (C)	Quarterly		
Not Very Often (D)	Annually		
Rarely (E)	Multi-year		

#### **Severity of Consequences**

The severity of consequences of a particular safety risk is the worst probable consequence should the safety risk occur. The SRM Committee will assess safety risk consequences using the injury and damage guidelines described below.

Consequence			
Description Injury Factors		Property Damage	
Major (1)	Death	Major Damage	
Serious (2)	Serious injury	Substantial damage	
Moderate (3)	Moderate Injury	Damage present	
Minor (4)	Minor injury	Minor Damage	

#### **Risk Assessment Matrix**

The SRM Committee will use a risk assessment matrix to determine a safety risk assessment rating, which represents the Likelihood rating combined with the Consequence rating. The safety risk assessment rating is described below.

Risk Assessment Matrix		Consequence			
		Major (1)	Serious (2)	Moderate (3)	Minor (4)
	Continual (A)	High	High	Serious	Medium
	Frequent (B)	High	High	Serious	Medium
Likelihood	Occasional (C)	High	Serious	Medium	Low
	Not Very Often (D)	Serious	Medium	Medium	Low
	Rarely (E)	Medium	Medium	Medium	Low

#### **Safety Risk Resolution Guidelines**

The SRM Committee will use the following guidelines to assist in risk resolution decision-making.

Resolution Guidance	
Description	Recommended Action
High	Immediate inspection may be required.
Serious	Inspection may be necessary.
Medium	Monitor through routine methods.
Low	Acceptable risk.

# **Ongoing Process for Inspection Prioritization**

TxDOT's data analysis and prioritization process is designed to detect changing safety performance. As part of ongoing monitoring, TxDOT will prepare monthly safety data dashboards which are provided via email to TxDOT SRM committee members and all other TxDOT SSO Staff and Contractor personnel. TxDOT SSO personnel will review the monthly dashboard, and based on the results of the review, personnel may make a recommendation to SSO PM Lead to hold an ad hoc SRM committee meeting.

The TxDOT SSO Program Managers will decide if an ad hoc SRM committee is needed, and if needed, will schedule an ad hoc SRM committee meeting. SSO Support Contractor Project Managers may also request the TxDOT SSO Program Manager schedule an ad hoc SRM committee meeting to assess risk and determine appropriate next steps.

Ad hoc SRM committee meetings may occur as frequently as needed to prioritize oversight activities, including inspections.

# Category 5: RBI Program Commensurate with RTA Number, Size, and Complexity

TxDOT utilizes NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity.

Rail agency characteristics such as mode, vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between light rail and streetcar systems. NTD Profile Data demonstrates that light rail systems operate more hours per day, more days per week, more vehicles per day, over greater distances, and at higher speeds.

#### Summarized 2022 NTD Profile Data:

Agency	Mode	Vehicles Operated in Max Service	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Directional Route Miles
Dallas Area Rapid Transit	Light Rail	89	9,593,071	505,134	182.4
Houston Metro	Light Rail	46	2,884,288	246,735	43.6
McKinney Avenue Trolley	Streetcar	4	69,748	15,350	4.53
Dallas Streetcar	Streetcar	2	91,133	13,078	4.7
El Paso Streetcar	Streetcar	4	26,249	3,887	4.8
Galveston Island Trolley	Streetcar	2	6,386	1,710	4.2

# **Perform Consistent and Ongoing Risk-Based Inspections**

TxDOT will conduct a minimum of four inspections with notice per year at each RTA. Inspections are scheduled as part of a two-year cycle with an inspection occurring each calendar quarter. TxDOT may conduct additional inspections, both with and without notice, as determined by TxDOT's data analysis and risk prioritization process.

Consistent and ongoing site inspections, in addition to monthly safety data analysis, will ensure TxDOT verifies an RTA's adherence to safety requirements, detects shifts in risk, and changes in safety performance. Such changes may result in additional announced and unannounced inspections beyond the four inspections with notice.

# **Inspect the Full Spectrum of Activities**

Inspections may include, but not limited to, all infrastructure, equipment, records, personnel, and data, including the data each RTA collects when identifying hazards and analyze, assess, and mitigate safety risks. Inspections will be prioritized based on relevant data including safety program, maintenance, and inspection data collected by the SSOA. These may include items such as:

- Inspection schedules
- Inspection reports
- Immediate safety concerns
- Inspections of equipment, infrastructure, and practices specific to each RFGPTS
- Event verification
- Ongoing monitoring (procedures, maintenance, and operations)
- Defects and corrective or remedial actions

• CAP and safety risk mitigation verification

# Category 6: SSO Staffing, Qualification, and Training

The TxDOT SSO program personnel are skilled and qualified to implement and manage an effective risk-based inspection program. To ensure adequate staffing and resources; the SSO workload assessment, inspection personnel qualifications, and a technical training plan will be reviewed and updated annually. These three elements are discussed below.

### SSO Workload Assessment

The TxDOT SSO Workload Assessment helps to determines the staffing levels needed based on the requirements of the SSO oversight program. TxDOT conducts an annual workload review and update to ensure that staff resources remain sufficient to efficiently conduct safety oversight and risk-based inspections. TxDOT staff are augmented by two SSO Support contractor firms with contracts in place through September 2026. The TxDOT SSO Workload Assessment is updated annually as part of the Annual Report to FTA.

## **Technical Training Plan**

TxDOT's Technical Training Plan (TTP) identifies the necessary FTA, TxDOT, and each RTA training needed for TxDOT staff and support contractors to implement the risk-based inspection program. Training includes functional training pertinent to assigned duties, roadway worker protection training, and other training required to access tunnels, signals, or traction electrified systems, if required.

TxDOT tracks training by employee to ensure required training is completed timely and upcoming refresher deadlines are met to remain in compliance with all required training. The TxDOT TTP is reviewed at least annually as part of the Program Standard update and updated by August 31<sup>st</sup> of the current year if an update is needed.

# **Inspection Personnel Qualification Verification**

TxDOT will maintain a training matrix to track personnel training requirements. The training matrix will be reviewed annually for needed revisions and updated as needed as part of the Program Standard update process. TxDOT periodically update the training matrix to document completed training to ensure training is completed timely and documented on the matrix.

# **RTA Risk-based Inspection Procedures**

The following section provides risk-based inspection procedures specific to each RTA within the TxDOT State Safety Oversight Program. Because this document is publicly available TxDOT has omitted names, phone numbers, and email addresses from this document. Individuals are identified by position.

### **Houston METRO**

The TxDOT SSO and Houston METRO Risk-based Inspection Procedures were developed through coordination and consultation between TxDOT and Houston METRO staff. Coordination and consultation included onsite meetings, conference calls, email correspondence, and document reviews conducted between TxDOT and Houston METRO staff. The following procedures will be reviewed annually and if necessary updated using a collaborative process defined within the Program Standard and PTASP.

### **Houston METRO System Overview**

Houston METRO provides light rail service via its Red, Green, and Purple Lines. The Red Line operates along Main and Fannin Streets, serving 24 stations with terminal stops at the Northline Transit Center (TC)/Houston Community College (HCC) and Fannin South Stations. The Green Line is a 3.3-mile line with 9 stations from Theater District Station eastward towards the Magnolia Transit Center. The Purple Line is a 6.1-mile line with 10 stations that runs from Theater District Station in downtown Houston southeastward towards the Palm Center Transit Center.

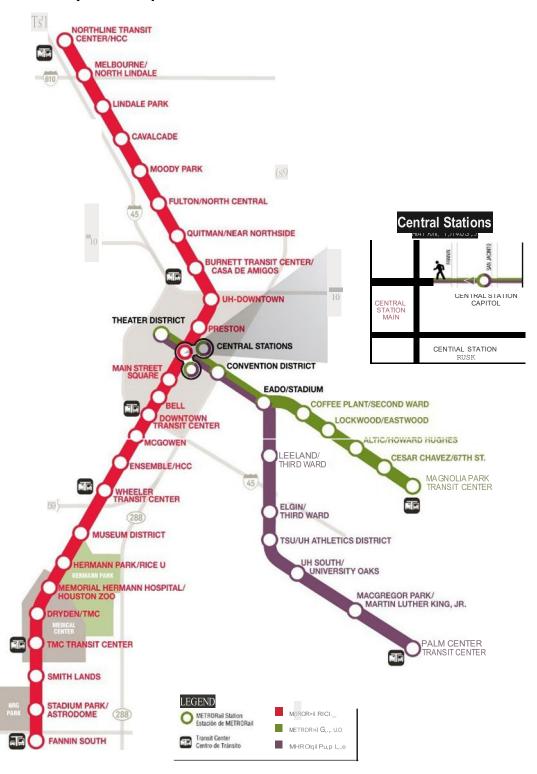
### **Houston METRO Service Summary**

Line	Days Operated	Hours Operated	Headways
Red	Monday to Sunday	Fam to Midnight	Mon – Fri: 6 minutes
		5am to Midnight	Sat – Sun: 12 minutes
Green	Monday to Sunday	5am to Midnight	Mon – Fri: 12 minutes
			Sat – Sun: 18 minutes
Purple	Manday to Cunday	l Sam to Midnight I	Mon – Fri: 12 minutes
	Monday to Sunday		Sat – Sun: 18 minutes

METRO opened the original 7.8- mile segment of the Red Line between Fannin South and University of Houston (UH)-Downtown Station in January 2004. The 5.3-mile Red Line extension from UH-Downtown to Northline TC/HCC Station opened in December 2013, and the Purple and Green Line extensions opened in May 2015.

METRO operates approximately 90 light rail vehicles (LRVs); consisting of three series, two of which are manufactured by Siemens; the third manufactured by CAF. METRO uses an internal nomenclature of "H1," "H2,", "H3", and "H4" to distinguish the three series of LRVs. The electric-powered LRVs operate on steel rail in an urban environment on both embedded and ballasted track and receive power through an overhead contact system (OCS). METRO signal equipment provides input to city traffic equipment for signal preemption at intersections. Train-to-wayside communications equipment throughout the system provides train location information.

# **Houston METRO System Map**



### Category 2(a): Houston METRO Property Access and Inspection Procedures

The following procedures apply to TxDOT's access to Houston METRO to infrastructure, equipment, records, personnel, and data.

### **Scheduling Inspections**

TxDOT will schedule a minimum of four inspections with notice per year at each RTA. Inspections are scheduled as part of a two-year cycle with one inspection with notice occurring each calendar quarter.

At its discretion, and as guided by METRO's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section below.

### **Scheduling Inspections with Notice**

Inspections with notice will occur with 1 calendar day or more notice. Although TxDOT may schedule inspections with notice with 1 day or more notice, TxDOT prefers to provide additional notice to allow the RTA time to prepare for the inspection which may require additional time fulfill data requests and securing track allocation, if necessary.

Inspection with Notice (Announced) Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the Chief Safety Officer (CSO), Director of Safety, Director, Safety Management Systems, and Manager, Rail Safety by email 1 calendar day or more before intended inspection.
  - a. CSO
  - b. Director of Safety
  - c. Manager, Rail Safety
- 2) The TxDOT Lead Inspector may also call Houston METRO staff to plan inspection activities and discuss required data or track allocation.
- 3) The RTA CSO or delegated staff will ensure required escort(s), data, and track allocation is provided by the start time of the inspection.
- 4) The TxDOT inspection team with gather at the agreed upon location on the inspection date and time. Meeting locations are listed within the Access procedures below.

### **Scheduling Inspections Without Notice**

Inspections without notice will occur with no notice. TxDOT will notify the RTA's CSO and other designated personnel when arriving onsite to conduct an unannounced inspection. Information included with the inspection notification is stated in the Inspection Notification Information below.

Inspection Without Notice Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the CSO, Director of Safety, Director, Safety Management Systems, and Manager, Rail Safety. Contact information is provided on the Key Contacts List on the last page of this document.
- 2) The RTA CSO or delegated staff will ensure required escort(s), data, and track allocation is provided by the start time of the inspection.

- 3) The TxDOT inspection team with gather at the agreed upon location until inspection begins. Meeting locations are listed within the Access procedures below.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT's notification, and the inspection must begin within 2 hours or less of TxDOT's Inspections notification.

### **Inspection Notification Information**

The TxDOT Lead Inspector will provide an inspection notification that contain the following information:

- inspection agenda,
- inspection purpose,
- risk prioritization,
- date and time of inspections,
- locations to be inspected,
- data needed for inspection,
- requested escorts, and
- RTA staff requested to attend.

### Access procedures, including all areas, and required escorts:

The TxDOT SSO staff and SSO Support Contractors have full access through key card to Houston METRO's property, including infrastructure, equipment, records, facilities, data, and personnel. However, TxDOT will not attempt to access RTA property, including hazardous or security sensitive areas, without an escort. Furthermore, TxDOT will abide by Houston METRO's track allocation procedures and timelines to access areas that require adherence to track allocation procedures.

Hazardous areas may include right-of-way, maintenance or storage yard, tunnels, bridges, and electrical infrastructure. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations or police activity associated with safety events.

When arriving at the RTA's property for inspections, both with and without notice, the TxDOT inspectors will gather at agreed upon locations and await an RTA escort.

- 1) The TxDOT inspectors will gather in a safe location at the time stated in the notification and await the arrival of Houston METRO escorts. The following locations shall serve as gathering spots:
  - a. Admin offices: 1900 Main St, Houston, TX 77002 (Lobby)
  - b. Rail Operations Center (ROC): 1601 W. Bellfort Ave, Houston TX 77054
  - c. Service & Inspection (S&I) Facility: 5880 Harrisburg, Houston, TX 77011
  - d. Rail Control Center (RCC): Houston TranStar, 6922 Katy Rd. Houston, TX 77024
  - e. Grade Crossings: Nearest public sidewalk adjacent to the crossing.
  - f. Stations: Within the publicly accessible platform area
- 2) The RTA CSO or delegated staff will ensure required escort(s) and track allocation is provided by the start time of the inspection.
- 3) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT's notification, and inspection must begin within 2 hours or less of TxDOT's Inspections notification.

If track allocation is need then TxDOT will follow Houston METRO's track allocation process. The process, pertinent details, and times are as follows:

- Normal track allocation: Houston METRO requires track allocation requests to be submitted by 5pm on Tuesday for track allocation the following week. Details can be found at: https://www.ridemetro.org/about/business-to-business/track-access
- Foul time- Requested through the Chief Safety Officer, Director of Safety, or Manager, Rail Safety.
- Emergency track allocation: Requested through the Chief Safety Officer, Director of Safety, or Manager, Rail Safety.

### **Verification of SSO Inspector Certifications and Trainings:**

The following procedures apply TxDOT inspectors' pre-inspection briefing, confirmation of adherence to all TxDOT and RTA safety protocol and requirements.

- 1) The TxDOT Lead Inspector will conduct a pre-inspection briefing with the Houston METRO escort to review and discuss the inspection details including agenda, purpose, TxDOT personnel present.
- 2) The TxDOT Lead Inspector will request each inspection team member physically displays METRORail Identification Card to the Houston METRO escort. Displaying valid METRORail Identification Card demonstrates each inspection team member is authorized to enter locations requiring such certifications.
  - a. Inspectors unable to display valid METRORail Identification Card will not enter areas requiring certification.
- 3) The TxDOT Lead Inspector will ask inspection team member to demonstrate to the Houston METRO escort the required personal protective gear, which may include:
  - i. steel-toe or composite-toe boots,
  - ii. appropriate clothing for inspection to be completed,
  - iii. Houston METRO approved safety vests
  - iv. protective eyewear,
  - v. hearing protection,
  - vi. gloves, and
  - vii. hard hats/bump caps.
- 4) The TxDOT Lead Inspector will request a safety briefing from the Houston METRO escort to inform or discuss with TxDOT and Houston METRO personnel any information necessary for a safe inspection, including any known hazards or safety concerns, and personal electronic device policies.
- 5) The inspection will begin only when the TxDOT Lead Inspector and the Houston METRO escort have confirmed each step of the inspection briefing, training and PPE verification, and safety briefing.

# **Category 2(B) Houston METRO Inspection Practices**

TxDOT will schedule four inspections with notice at Houston METRO each calendar year. At its discretion, and as guided by METRO's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section above.

### **Inspection Reports Procedure:**

TxDOT and Houston METRO will implement the following Inspection Report procedure.

- 1) The TxDOT PM or Contractor will email the Houston METRO CSO, Director of Safety, and Manager, Rail Safety a draft version of Inspection Report no later than 30 calendar days after completion of the inspection.
- 2) Houston METRO will have 10 calendar days to review and respond via email to the TxDOT SSO PM with any correction, clarification, or revision requests.
- 3) TxDOT will factor in Houston METRO's response and then send the final Inspection Report Houston METRO CSO via email not later 10 calendar days after Houston's draft Inspection Report response. TxDOT will also upload the Inspection Report into the Houston METRO RBI Module within the SSO Tracker system.

The Inspection Report provided to Houston METRO will include the following sections:

- Date and time of inspection,
- TxDOT personnel present, including Inspection Team Lead, and RTA personnel present,
- Location and functional area inspected,
- Description of issues or deficiencies noted, including immediate safety concerns.
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required or recommendations.

### **Immediate Safety Concerns**

Each member of the TxDOT Inspection team has the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present. Ensuring safety of all personnel present may include delaying, pausing, or cancelling the inspection, not entering inspection areas, or departing the inspection areas until the safety concern is resolved.

When a safety concern is observed the individual will notify the TxDOT Lead Inspector, who will then notify inspection personnel present. Depending on the circumstances, the inspector may need to notify:

- Rail Control Center
- METRO Police Dispatch
- Law enforcement (e.g., 911)

The TxDOT Lead Inspector will work together with RTA staff to ensure personnel are in a safe location and to reassess the safety of the inspection team. If the inspection cannot safely continue, then TxDOT or the RTA may immediately cancel the inspection. Cancelled inspections for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete or may re-scheduled at a future date.

If the inspection can safely continue, then the TxDOT inspection team will document and photograph the safety concern observed and immediately discuss the issue with the TxDOT and RTA present. At the conclusion of the inspection, TxDOT will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard. The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

### **Ensuring the Safety of Inspection Personnel:**

- 1) TxDOT or RTA inspection team members have the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. Examples of safety concerns may include, but not limited to:
  - a. Security concerns such as criminal activity, suspicious person or package, or unsafe location,
  - b. Inclement weather or threat of inclement weather,
  - c. Personnel conduct including disregard for safety procedures, suspected fatigue, or impairment,
  - d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including, but not limited to:
    - i. Rail defects, track related damage, or obstructions.
    - ii. Overhead contact damage, malfunction, or other observed safety concern
    - iii. Signal related damage or malfunction,
    - iv. Vehicle damage or component malfunction
    - v. Facility safety concerns such as fire, electrical, or other life/safety concerns
  - e. Any other concern judged by inspection personnel as an immediate safety concern.
- 2) TxDOT or RTA personnel observing a safety concern must immediately report the safety concern to the TxDOT Lead Inspector.
- 3) The TxDOT Lead Inspector will immediately notify all personnel present, including TxDOT and RTA personnel.
- 4) The TxDOT Lead Inspector, with the assistance of RTA personnel, will initiate a safety pause and immediately assess the safety concern to determine if inspection personnel must stop inspection activities and move to a different location to ensure safety.
- 5) The TxDOT Lead Inspector, with assistance from RTA personnel, will ensure all personnel are in a safe location.
- 6) The inspection shall not continue until the safety concern has been resolved.
- 7) The TxDOT Lead Inspector will determine if additional RTA personnel must be immediately notified including Train Control, Houston METRO PD, Safety Department, or other staff.
- 8) The TxDOT Lead Inspector will contact Houston METRO contacts as described below:
  - a. METRO Rail Control Center
  - b. Houston METRO Police:
    - i. Emergency
    - ii. Non-emergency
  - c. Safety staff
  - d. Other designated staff
- 9) If the safety concern cannot be resolved, then the TxDOT Lead Inspector or RTA personnel may cancel the inspection and depart Houston METRO property.
- 10) If the safety concern can be resolved, then the Inspection will resume as soon as the safety issue is resolved.
- 11) The TxDOT Lead Inspector will inform all personnel, including TxDOT and RTA, that the issue is has been resolved, and the inspection will resume.

#### **Communicating Safety Concerns to RTA**

- 1) The TxDOT Lead Inspector will verbally communicate the immediate safety concern upon discovery as described above, via email within 24 hours, and as part of the inspection report.
- 2) Within 24 hours of inspection conclusion, the TxDOT Lead Inspector will send via email to the Chief Safety Officer, Director of Safety, and Manager, Rail Safety, a summary of the safety concern observed, an explanation of why it is a safety concern, and photographs or other documentation pertinent to the concern.
- 3) TxDOT will also include the immediate safety concern within the inspection report.
- 4) TxDOT will coordinate with the CSO and safety staff to ensure the safety concern is managed in accordance with safety risk management requirements within the SSO Program Standard and METRO's PTASP. Such actions could include documentation of a hazard, corrective action, including an emergency corrective action, and further investigation from RTA personnel including RTA safety staff or the RTA safety committee.

### Inspections of Equipment, Infrastructure, & Practices Specific to Each RTA

The following procedure will define the Houston METRO equipment, infrastructure, and practices present (broad) and the inspection frequencies and practices (specific) that TxDOT may be consider when determining inspection areas.

TxDOT may conduct inspections of any infrastructure, equipment, locations, records, and personnel that is part of Houston METRO's rail system. Any property or personnel (employee or contractor) performing work related to the rail system could be the subject of a TxDOT SSO inspection. Houston METRO's data used for the identification and assessment of safety risk is also subject to inspection by TxDOT.

The Houston METRO rail system is comprised of the following areas:

- 1) Rail Vehicles includes 90 light rail vehicles and non-revenue/maintenance vehicles.
- 2) Track inspection and maintenance consists of 43.6 miles mainline and yard track structures including ballasted track, embedded track, direct fixation track, and bridges.
- 3) Traction Power System consists of two functional subsystems: Traction Power Substations and Overhead Contact System.
- 4) Signals consist of interlockings, main line train control, conventional and audio track circuits, axle counters, highway crossings devices, centralized traffic control, PA/PIS, and cameras.
- 5) Facilities include stations, rail operation centers, storage yards, and landscaped rail medians.
- 6) Public Transportation Agency Safety Plan and associated plans, documents, policies, and procedures.

Additional Houston METRO practices are referenced within the Ongoing Monitoring section below.

#### **Event Verification**

TxDOT and RTAs coordinate throughout the accident investigation process as described in Section 7: Accident Investigation of the TxDOT SSO Program Standard. The following section summarizes how TxDOT conducts Event Verification to RBI related investigation and safety risk identification processes.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and

thoroughness of RTA completed investigations. As part of accident oversight, TxDOT reviews the RTA's findings of causation and determines if corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes events individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal characteristics. These metrics aid in understanding probable and contributing causes, and guide identification of safety risk.

TxDOT may also require information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair needed to return damaged items to service. TxDOT may verify repairs and return to service through review of documentation which may include workorders, repair summaries, or photographs. TxDOT may also verify repairs and return to as part of inspection activities.

### **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assesses each RTA to determine the functional areas and associated infrastructure, equipment, facilities, and procedures of each system. TxDOT then divides the functional areas into a two-year cycle divided into calendar quarters.

In addition to ongoing monitoring throughout the two-year period, TxDOT conducts monthly conference calls to discuss safety events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitor efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination related to risk profile.

To establish the ongoing monitoring inspection schedule, TxDOT uses the following process:

- 1) The TxDOT PMs and SSO Support Contractors will develop a two-year calendar prior to implementation of the RBI program.
- 2) The two-year calendar will be divided into calendar quarters, and each quarter will be assigned a functional area of Houston METRO.
  - a. Houston METRO is functional areas include, but not limited to:
    - i. Track
    - ii. Signals
    - iii. Traction Power Systems
    - iv. Vehicles
    - v. Facilities
    - vi. Training
    - vii. PTASP compliance, including associated documents, policies, SOPs, and practices.

- 3) During each quarter TxDOT will perform at least one inspection with notice to observe and inspect the functional area selected for review. The inspection may consist of the following activities, but not limited to:
  - a. Review of past and current data
  - b. Discussions with RTA staff
  - c. Observations of task performance
  - d. Inspection of infrastructure, equipment, vehicles, or data.
  - e. Verification of accident, incident, corrective action, or mitigation implementation.
- 4) Inspection activities are documented with an inspection report within 30 days of monitoring activities.

#### **Defects and Corrective or Remedial Actions**

TxDOT may monitor RTA defect, corrective, and remedial action detection, tracking, and resolution as part of the data Houston METRO uses in the identification and assessment of safety risk RBI. TxDOT may track significant defects by number and severity to ensure each RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also result in documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

### **CAP and Safety Risk Mitigation Verification**

TxDOT coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from:

- investigations,
- risk-based inspections,
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures.
- FTA or SSO direction.

Hazards reported to TxDOT will be evaluated to determine needs for CAP creation. The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT to close a CAP once identified actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, an attached documentation, uploaded pictures verifying completion, or onsite review verifying completion.

TxDOT also requires coordination on safety risk mitigations as specified in the Program Standard, section 8.6 Monitoring of RTA Hazard. To summarize, TxDOT requires RTAs to submit monthly hazard logs that summarize safety risk management information including:

- Date issue discovered,
- Summary or description of safety risk, including location,
- Assessment including probability and severity,
- Responsible RTA department or employee tasked with resolving the issue,
- Status of hazard or risk resolution, including mitigations or corrective actions implemented.

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative issue such as policy, procedure, and documentation improvements are monitored and verified primarily through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure are verified through a combination of documentation reviews and onsite inspections. Mitigations and corrective actions involving implementation operations, maintenance, or safety practices are monitored through observation-based inspections referenced with the Ongoing Monitoring section above.

## Category 3(a): Houston METRO Data Procedures

TxDOT recognizes the differences in size and complexity between light rail and streetcar systems. As described in Category 5, TxDOT uses NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity. Rail agency characteristics such as vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between light rail and streetcar systems.

Light rail systems operate more vehicles per day, more hours per week, and over greater distances at higher speeds. As a light rail system, Houston METRO will submit data used to identify hazards and analyze, assess and mitigate safety risk that encompasses a full spectrum of RTA activities. TxDOT and Houston METRO will share data according to the procedures below.

### Data Submission Method, Schedule, and Acceptable Formats:

- 1) Houston METRO shall submit RBI data within the SSO Tracker system. The data will be submitted within the RBI module, in the appropriate data section (Safety, Maintenance, Inspection, or Additional Safety), and within the appropriate calendar quarter.
- 2) Houston METRO will submit data as follows:

### a. Safety Data:

- i. Safety Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Monthly: 30 calendar days after the end of the month.

#### b. Maintenance and Inspection Data:

- i. Maintenance and Inspection Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Quarter 1: Jan, Feb, and Mar. Data due on April 30<sup>th</sup>.
  - 2. Quarter 2: Apr, May, and Jun. Data due on July 30th.
  - 3. Quarter 3: Jul, Aug, and Sept. Data due on Oct 30<sup>th</sup>.
  - 4. Quarter 4: Oct, Nov, and Dec. Data due on Jan 30<sup>th</sup>.
- 3) Data shall be submitted in the SSO Tracker system in the following acceptable formats:
  - a. Microsoft Excel
  - b. .CSV files
  - c. Tableau
  - d. Other formats agreed upon.

### **Safety Data**

Each month Houston METRO will submit safety data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. Safety data may include accidents, incidents, hazards, corrective action plans, safety risk mitigations, and records of near misses. Through routine SSO activities TxDOT has access to RTA accident data, SSO reportable hazards, internal hazard tracking, corrective action plans, safety risk mitigations, and near miss reporting. TxDOT will not request METRO to resubmit data already in TxDOT's possession. METRO will submit Safety data each month using the procedure below.

- 1) The Director of Safety or Rail Safety Manager will submit safety data sets in the RBI Module, Safety Data section in SSO Tracker no later than 30 calendar days after the end of month.
- 2) Safety Data sets, including summary reports, used to identify hazards and analyze, assess, and mitigate safety risk submitted by Houston METRO will include:
  - a. Summary Report of Accidents and Incidents from Risk Management Information System (RMIS)
  - b. Near-miss Records.
  - c. Train Control Center logs
  - d. SAP database- hazard log information
  - e. Tableau trend analysis- 12—Month Rolling Average
  - f. Safety committee minutes
  - g. Labor Management Safety Committee Minutes
  - h. FTA/PMOC Monthly Review Meeting Presentations
  - i. FTA/PMOC Quarterly Review Meeting Presentations
- 3) Safety Data TxDOT possesses and will use as RBI data:
  - a. Accidents investigation reports
  - b. SSO reportable hazards,
  - c. RTA internal hazard logs,
  - d. Corrective action plans,
  - e. Safety risk mitigations
  - f. NTD data
  - g. SSO Triennials Audit Reports
  - h. Internal Safety Review Reports
  - i. Public Safety, Customer Service & Operations Monthly Report (METRO Board Committee)

### **Maintenance and Inspection Data**

Each quarter Houston METRO will submit maintenance and inspection data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. METRO will submit Safety data quarterly using the procedure below.

- 1) The Director of Safety or Manager, Rail Safety will submit maintenance and inspection data sets in the SSO Tracker system no later than 30 calendar days after the end of quarter.
- 2) Maintenance and Inspection data sets, including summary data used to identify hazards and analyze, assess, and mitigate safety risk may include:

- a. Records of failures and defects
- b. Work Orders
- 3) Maintenance and Inspection Data TxDOT possesses and will use as RBI data:
  - a. SSO Inspection Reports completed quarterly
  - b. SSO Triennials Audit Reports
  - c. Internal Safety Review Reports
  - d. Labor Management Safety Committee minutes
  - e. Employee reporting

# **Houston METRO Key Contact Information and Addresses**

		Office		
Name	Job Title	Phone	Mobile	Email
Boukhriss, Mohammed	Director of Safety	(713)739- 3892	(713)380 -8579	mohammed.boukhriss@ridemetro.org
Garcia, Lidia	Safety Compliance & Analysis Administrator	(713) 615-6428	N/A	lidia.garcia@ridemetro.o rg
Denny, Thomas	Manager, Rail Safety	(713)652- 8921	(832) 491-7033	@ridemetro.org
Osorio, Santiago	Chief Safety Officer	(713) 615- 7011	(832) 870-8224	santiago.osorio@rideme tro.org
Porche, Henry	Safety Compliance & Analysis Administrator	(713) 739- 6005	(713) 299-2159	henry.porche@ridemetr o.org
Rail Control Center	Chief Controller on duty	(713)843- 5499		
METRO Police Department	Non-emergency Number	(713)224- 2677		

# **Key Addresses:**

Admin offices: 1900 Main St, Houston, TX 77002 (Lobby)

Rail Operations Center: 1601 W. Bellfort Ave, Houston TX 77054

S&I Facility: 5880 Harrisburg, Houston, TX 77011

Rail Control Center: Houston TranStar, 6922 Katy Rd. Houston, TX 77024

Grade Crossings: Nearest public sidewalk adjacent to the crossing.

Stations: Within the publicly accessible platform area

### **Dallas Streetcar**

The TxDOT SSO and Dallas Streetcar Risk-based Inspection Procedures were developed through coordination and consultation between TxDOT, City of Dallas, and DART staff. Coordination and consultation included onsite meetings, conference calls, email correspondence, and document reviews conducted between TxDOT, City of Dallas, and DART staff. The following procedures will be reviewed and if necessary, updated annually using a collaborative process defined within the Program Standard and PTASP.

## **Dallas Streetcar System Overview**

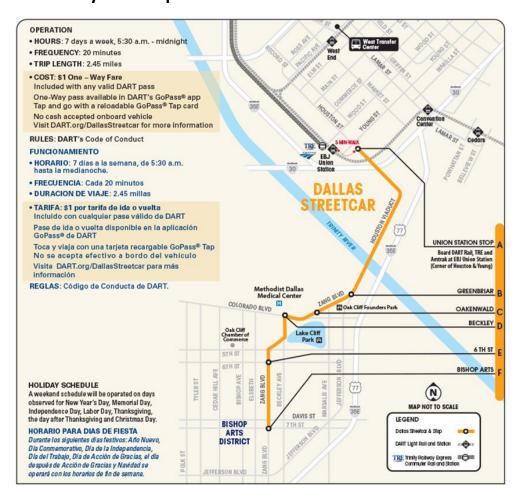
The Dallas Streetcar is a modern streetcar system to operates 4 streetcars to serve 6 stations along a 2.45 of track between Union Station and Bishop Arts across the Trinity River in Dallas, Texas. The streetcars are electric-powered and run on both an overhead contact system (OCS) and car-borne batteries, the combination of which power the streetcar propulsion. The streetcars operate on embedded surface rail in an urban environment with line-of-sight and bar signals tied to civil traffic signal system.

The Dallas Streetcar is owned by the City of Dallas (COD) but is operated and maintained by Dallas Area Rapid Transit (DART) through an interlocal agreement at its Central Rail Operating Facility (CROF). DART provides staffing for operations, maintenance, safety, and remaining administrative functions.

### **Dallas Streetcar Service Summary**

Line	Days Operated	Hours Operated	Headways
Streetcar	Monday to Sunday	5:30am to Midnight	Every 20 minutes

# **Dallas Streetcar System Map**



# Category 2(a): Dallas Streetcar Property Access and Inspection Procedures

The following procedures apply to TxDOT's access to Dallas Streetcar (DSC) to infrastructure, equipment, records, personnel, and data.

### **Scheduling Inspections:**

TxDOT will schedule a minimum of four inspections with notice per year at the Dallas Streetcar. Inspections are scheduled as part of a two-year cycle with one inspection with notice occurring each calendar quarter.

At its discretion, and as guided by the Dallas Streetcar's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section below.

### **Scheduling Inspections with Notice**

Inspections with notice will occur with 1 calendar day or more notice. Although TxDOT may schedule inspections with notice with 1 calendar day or more notice, TxDOT prefers to provide additional notice to allow the RTA time to prepare for the inspection which may require additional time to accommodate data requests and securing track allocation, if necessary.

Inspection with Notice (Announced) Procedure and Timeline:

- The TxDOT Lead Inspector will notify the CSO, Director of Safety, and Rail Safety Manager by email 1 calendar day or more before intended inspection. (Contact information provided with Key Contact section)
  - a. Chief Safety Officer
  - b. Director of Safety
  - c. Rail Safety Manager
- 2) The TxDOT Lead Inspector may also call Dallas Streetcar staff to plan inspection activities and discuss required data or track allocation.
  - a. In accordance with DART policy, DART Agency Safety & Compliance personnel who are Light Rail Worker Protection Program (LRWPP)-certified may escort TxDOT inspection team personnel along the DART right-of-way for up to 30 minutes at a time without requiring prior track allocation.
  - b. For inspection activities requiring prior track allocation, such as inspection activities requiring the inspection team to be in Dallas Streetcar right-of-way for over 30 minutes, the TxDOT inspection team will submit a request to DART for track allocation. In accordance with DART policy, the inspection team will submit the track allocation request to DART no later than DART's 12:00 noon Central Time Tuesday for that week's track allocation. TxDOT will submit this request the week prior to the week inspection activities will take place. DART's track allocation meeting takes place weekly on Wednesdays at 2:00 pm Central Time, at which time DART will assign track allocation activities.
- 3) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.

- 4) The TxDOT inspection team with gather at the agreed upon location at the date and time of the inspection.
- 5) Inspections with notice will begin at the agreed upon time.
  - a. Unless otherwise specified, inspections will begin at DART's CROF maintenance facility, which is also the Dallas Streetcar maintenance facility.

### **Scheduling Inspections Without Notice**

Inspections without notice will occur with no notice. TxDOT will notify the RTA's CSO and other designated personnel of the intent to conduct an unannounced inspection. TxDOT will abide by each RTA's track allocation procedures and timelines to access areas that require adherence to track allocation procedures.

Inspections Without Notice Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the following RTA staff using contact information at the end of these procedures:
  - a. CSO,
  - b. Director of Safety, and
  - c. Rail Safety Manager.
  - d. City of Dallas Streetcar Representative
  - e. Assistant VP, Streetcar Systems Engineering
  - f. DART Safety On-Call Staff Member
- 2) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 3) The TxDOT inspection team with gather at the agreed upon location until inspection begins.
  - a. The inspection team will gather at DART's CROF maintenance facility, which is also the Dallas Streetcar maintenance facility.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and the inspection must begin within 2 hours or less of TxDOT Inspections notification.

### **Inspection Notification Information**

The TxDOT Lead Inspector will provide notifications as described in the Notifications sections above. Notifications, both with and without notice, will contain the following information, but not limited to:

- inspection agenda,
- inspection purpose,
- risk prioritization,
- date and time of inspections,
- locations to be inspected,
- data needed for inspection,
- requested escorts, and
- RTA staff requested to attend.

### Access procedures, including all areas, and required escorts:

TxDOT SSO staff and SSO Support Contractors have full access through key card and badge to DART's property, including infrastructure, equipment, records, facilities, data, and personnel. However, TxDOT will not attempt to access DART property, including hazardous or security sensitive areas, without an escort.

Hazardous areas may include right-of-way, yard, tunnels, bridges, and electrical infrastructure. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations or police activity associated from safety events.

When arriving at the RTA's property for inspections, both with and without notice, TxDOT inspectors will gather at an agreed upon locations such as a main entrance, reception area, or other area requested by the RTA, and await an RTA escort.

- 1) The TxDOT inspectors will gather in a safe location at the time stated to in the notification and await the arrival of DART escorts. The following locations shall serve as gathering spots:
  - a. Admin offices.
  - b. Maintenance yard.
  - c. Storage Yard.
  - d. Grade Crossings. Meet DART personnel at DART CROF, then deploy to grade crossing.
  - e. Stations. Within the publicly accessible platform area of selected station
- 2) RTA CSO or delegated staff will ensure required escort(s) and track allocation is provided by the start time of the inspection.
- 3) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and inspection must begin within 3 hours or less of TxDOT Inspections notification.

If track allocation is need then TxDOT will follow DART's track allocation. The process, pertinent details, and times are as follows:

- Normal track allocation:
  - o Request deadline: 12:00 noon Tuesday
  - Meeting: 2:00 pm Central Wednesdays
- Emergency track allocation:
  - DART department requesting emergency entry provides briefing to chief controller;
     qualified DART escort then calls in to TCC, escorts crew on right-of-way (ROW).
- Foul time:
  - DART Agency Safety & Compliance can call into TCC and request foul time. The request need not specify a specific duration, but foul time entry is permitted for only up to 30 minutes. Entries into the ROW over 30 minutes require establishment of a formal work zone.
    - DART counts any hold of rail traffic for over 10 minutes as a service delay.

### **Verification of SSO Inspector Certifications and Trainings:**

The following procedures apply to TxDOT inspectors' pre-inspection briefing, confirmation of adherence to all TxDOT and RTA safety protocol and requirements.

1) The TxDOT Lead Inspector will conduct an inspection briefing with the DART escort to review and discuss the following inspection details:

- a. The TxDOT team lead will provide the agenda and verbally inform the DART of the TxDOT personnel present, inspection purpose, locations to inspect, and schedule.
- 2) The TxDOT Lead Inspector will next ensure each team member physically displays Roadway Worker Protection (RWP) verification to the DART escort. Displaying valid LRWPP demonstrates each inspection team member is authorized to enter locations requiring such certifications.
  - a. Inspectors unable to display valid LRWPP will not enter areas requiring certification.
- 3) The TxDOT Lead Inspector will ask inspection team member to demonstrate to the DART escort the required personal protective gear, which may include, but not limited to:
  - i. name badges,
  - ii. RWP cards,
  - iii. steel-toe or composite-toe boots,
  - iv. appropriate clothing for inspection to be completed,
  - v. RTA approved safety vests
  - vi. protective eyewear,
  - vii. hearing protection,
  - viii. gloves, and
  - ix. hardhats/bumps CAPs.
- 4) The TxDOT Lead Inspector will request a safety briefing from the DART escort to inform or discuss with TxDOT and DART personnel any information necessary for a safe inspection, including any known hazards or safety concerns, and personal electronic device policies.
- 5) The inspection will begin only when the TxDOT Lead Inspector and the Dallas Streetcar escort have confirmed each step of the inspection briefing, training and PPE verification, and safety briefing.

# Category 2(b): Dallas Streetcar Inspection Practices

TxDOT will schedule four inspections with notice at Dallas Streetcar each calendar year. At its discretion, and as guided by DSC's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section above.

### **Inspection Reports Procedure:**

TxDOT and Dallas Streetcar will implement the following Inspection Report procedure.

- 1) TxDOT will email the DART CSO; DART Director of Agency Safety and Compliance; DART Senior Manager of Safety Data and Compliance; the two DART Senior Safety Program Managers; the DART AVP Streetcar-Systems Engineer; and City of Dallas Streetcar Representative a draft of Inspection Report no later than 30 calendar days after completion of the inspection.
- DART and Dallas Streetcar will have 10 calendar days to review and respond via email to the TxDOT SSO PM and Contractor Project Manager with any correction, clarification, or revision requests.
- 3) TxDOT will factor in DART and Dallas Streetcar's response and the TxDOT will send the final Inspection Report Dallas Streetcar via email not later 10 calendar days after DART/DSC's draft Inspection Report response.
- 4) TxDOT will also upload the Inspection Report into the Dallas Streetcar RBI Module within the SSO Tracker system.

### **Inspection Reports:**

TxDOT will prepare an Inspection Report and complete the procedure as described in this section. The Inspection Report provided to Dallas Streetcar will include the following sections:

- Date and time of inspection,
- TxDOT personnel present, including Inspection Team Lead, and RTA personnel present,
- Location and functional area inspected,
- Description of issues or deficiencies noted, including immediate safety concerns.
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required or recommendations.
- 1) The TxDOT SSO Program Manager will draft and transmit via email a draft Inspection Report to Dallas Streetcar CSO, Director or Safety, and Rail Safety Manager no later than 30 calendar days after the conclusion of the Inspection. Inspection is considered conducted after the verbal debrief has been concluded by the TxDOT Lead Inspector.
- 2) The Dallas Streetcar CSO, Director or Safety, and Rail Safety Manager will review the draft Inspection Report and comment via email to the TxDOT SSO PM and Support Contractor Project Manager within 10 days of the date TxDOT transmitted the draft report.
- 3) TxDOT will review the comments and issue the final Inspection Report no later than 10 calendar days after DSC's deadline to submit comments. The TxDOT SSO PM and Support Contractor Project Manager will email the final Inspection Report via to the Dallas Streetcar CSO, Director or Safety, and Rail Safety Manager and upload the report into the SSO Tracker system.

### **Immediate Safety Concerns**

Each member of the TxDOT Inspection team has the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present. Ensuring the safety of all personnel present may include delaying, pausing, or cancelling the inspection, not entering inspection areas, or departing the inspection areas until the safety concern is resolved.

When a safety concern is observed the individual will notify the TxDOT Lead Inspector, who will then notify all TxDOT and personnel present. Depending on the circumstances, the inspector may need to notify:

- DART Train Control Center, Chief Controller on Duty
- DART Police
- DART Safety Staff on Call

The TxDOT Lead Inspector will work together with RTA staff to ensure personnel are in a safe location and to reassess the safety of the inspection team. If the inspection cannot safely continue, then TxDOT or the RTA may immediately cancel the inspection. Cancelled inspections for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete or may re-scheduled at a future date.

If the inspection can safely continue, then the TxDOT inspection team will document and photograph the safety concern observed and immediately discuss the issue with the TxDOT and RTA present. At the conclusion of the inspection, TxDOT will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard. The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

#### **Ensuring the Safety of Inspection Personnel:**

- 1) TxDOT or RTA inspection team members have the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. Examples of safety concerns may include, but not limited to:
  - a. Security concerns such as criminal activity, suspicious person and/or package, or unsafe location,
  - b. Inclement weather or threat of inclement weather,
  - c. Personnel conduct including disregard for safety procedures or suspected fatigue or impairment,
  - d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including, but not limited to:
    - i. Rail defects, track related damage, or obstructions.
    - ii. Overhead contact damage, malfunction, or other observed safety concern
    - iii. Signal related damage or malfunction,
    - iv. Vehicle damage or component malfunction
    - v. Facility safety concerns such as fire, electrical, or other life/safety concerns
  - e. Any other concern judged by inspection personnel as an immediate safety concern.

- 2) TxDOT or RTA personnel observing a safety concern must immediately report the safety concern to the TxDOT Lead Inspector and RTA escort.
- 3) The TxDOT Lead Inspector will immediately notify all personnel present, including TxDOT and RTA personnel.
- 4) The TxDOT Lead Inspector and RTA personnel will immediately assess the safety concern to determine if inspection personnel must stop inspection activities and move to a different location to ensure safety.
- 5) The TxDOT Lead Inspector will ensure all personnel are in a safe location.
- 6) The inspection shall not continue until the safety concern has been resolved.
- 7) The TxDOT Lead Inspector will determine if additional RTA must be immediately notified including Dallas Streetcar Police, Train Control, or the Chief Safety Officer.
- 8) The TxDOT Lead Inspector will contact DART contacts as described below:
  - a. DART Police:
    - i. Emergency.
    - ii. Non-emergency.
  - b. Train Control.
  - c. DART Safety Staff on Call
- 9) If the safety concern cannot be resolved, then the TxDOT Lead Inspector or RTA personnel may cancel the inspection and depart the property.
- 10) If the safety concern can be resolved, then the Inspection will resume as soon as the safety issue is resolved.
- 11) The TxDOT Lead Inspector will inform all personnel, including TxDOT and RTA, that the issue is resolved, and the inspection will resume.
- 12) Inspection may resume upon resolution of safety concern.

#### **Communicating Safety Concerns to RTA**

- The TxDOT Lead Inspector will verbally communicate the immediate safety concern upon discovery as described above, during the inspection conclusion, via email, and as part of the inspection report.
- 2) The TxDOT Lead Inspector will also explain any safety concerns discovered as part of a verbal debrief after the inspection is complete.
- 3) Within 24 hours of inspection conclusion, the TxDOT Lead Inspector will send via email to the DART CSO and designees the City of Dallas Department of Transportation Assistant Engineer, and DART AVP, Streetcar-Systems Engineering, a summary of the safety concern observed, an explanation of why it is a safety concern, and photographs or other documentation pertinent to the concern.
- TxDOT will also include the immediate safety concern within the inspection report.
- 5) TxDOT will coordinate with the CSO and safety staff to ensure the safety concern is managed in accordance with safety risk management requirements within the Program Standard and PTASP. Such actions could include documentation of a hazard, corrective action, including an emergency corrective action, and further investigation from RTA personnel including RTA safety staff or the RTA safety committee.

### Inspections of Equipment, Infrastructure, & Practices Specific to Each RTA

The following procedure will define the Dallas Streetcar equipment, infrastructure, and practices present (broad) and the inspection frequencies and practices (specific) that TxDOT will consider when determining inspection areas.

TxDOT may conduct inspections of any infrastructure, equipment, locations, records, personnel, and data of Dallas Streetcar's rail system. Any property or personnel (employee or contractor) performing work related to the rail system could be the subject of a TxDOT SSO inspection.

The Dallas Streetcar rail system is comprised of the following areas:

- 1) Rail Vehicles includes 4 streetcar rail vehicles. The streetcars operate on embedded surface rail in an urban environment with line-of-sight and bar signals tied to civil traffic signal system.
- 2) Track inspection and maintenance consists of 2.45 miles spanning 6 stations in addition to yard track structures including ballasted track, embedded track, direct fixation track, and bridges.
- 3) Traction Power System consists of two functional subsystems: Traction Power Substations and Overhead Contact System.
- 4) Signals consists of interlockings, main line train control, conventional and audio track circuits, axle counters, highway crossings devices, centralized traffic control, PA/PIS, and cameras.
- 5) Facilities include stations, rail operation centers, and storage yards. (Note: Dallas Streetcars shares DART's CROF maintenance facility with DART light rail)
- 6) Public Transportation Agency Safety Plan and associated plans, documents, policies, and procedures.

### **Event Verification**

TxDOT and RTAs coordinate throughout the accident investigation process as described in Section 7: Accident Investigation of the TxDOT SSO Program Standard. The following section summarizes how TxDOT conducts Event Verification to RBI related investigation and safety risk identification processes.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and thoroughness of RTA completed investigations. As part of accident oversight, TxDOT reviews the RTA's findings of causation and determines if corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes accidents and incidents individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal characteristics. These metrics aid in understanding probable and contributing causes, and guide identification of safety risk.

TxDOT also requires the RTAs to provide information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair need to return damaged items to service. TxDOT verifies repairs and return to service through review of documentation which may include workorders, repair summaries, or photographs. TxDOT may also verify repairs and return to as part of inspection activities.

### **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assesses each RTA to determine the functional areas and associated infrastructure, equipment, facilities, and procedures of each system. TxDOT then divides the functional areas into a two-year cycle divided into calendar quarters.

In addition to ongoing monitoring throughout the two-year period, TxDOT conducts monthly conference calls to discuss safety events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitor efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination related to risk profile.

To establish the ongoing monitoring inspection schedule, TxDOT uses the following process:

- 1) TxDOT and the SSO Support Contractors will develop a two-year calendar prior to implementation of the RBI program.
- 2) The two-year calendar will be divided into quarters, and each quarter will be assigned a functional area of Dallas Streetcar.
  - a. Dallas Streetcar is functional areas include:
    - i. Track
    - ii. Signals
    - iii. Traction Power Systems
    - iv. Vehicles
    - v. Facilities
    - vi. Training
    - vii. PTASP compliance, including plans, documents, policies, and procedures.
- 3) During the quarter, TxDOT will perform an announced inspection to observe and inspect the functional area selected for review. The inspection will consist of the following activities, but not limited to:
  - a. Review of past and current data
  - b. Discussions with RTA staff
  - c. Observations of task performance
  - d. Inspection of infrastructure, equipment, vehicles, or data.
  - e. Verification of accident, incident, corrective action, or mitigation implementation.
- 4) Inspection activities are documented with an inspection report 30 calendar days after monitoring activities.

### **Defects and Corrective or Remedial Actions**

TxDOT will monitor RTA defects, corrective and remedial action detection, tracking, and resolution as part of the RBI process. TxDOT requires RTAs to provide share data on the most severe defects discovered and the efforts leading to defect resolution. TxDOT will track defects by number and severity to ensure each

RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also require documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

### **CAP and Safety Risk Mitigation Verification**

TxDOT coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from, but not limited to:

- investigations,
- risk-based investigations
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures, or
- FTA or SSO direction.

Hazards identified for mitigation reported to TxDOT will be evaluated to determine needs for CAP creation. The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT close a CAP once identified actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, an attached documentation, uploaded pictures verifying completion, or onsite review verifying completion.

TxDOT also requires coordination on safety risk mitigations as specified in the Program Standard, section 8.6 Monitoring of RTA Hazard. To summarize, TxDOT requires RTAs to submit quarterly logs that summarize safety risk management information including:

- Date issue discovered.
- Summary or description of safety risk, including location.
- Assessment including probability and severity.
- Responsible RTA department or employee tasked with resolving the issue.
- Status of hazard or risk resolution, including mitigations or corrective actions implemented.

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative issue such as policy, procedure, and documentation improvements are monitored and verified primarily through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure are verified through a combination of documentation reviews and onsite inspections. Mitigations and corrective actions involving implementation operations, maintenance, or safety practices are monitored through observation-based inspections referenced with the Ongoing Monitoring section above.

# Category 3(a): Dallas Streetcar Data Procedures

TxDOT recognizes the differences in size and complexity between light rail and streetcar systems. As described in Category 5, TxDOT uses NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity. Rail agency characteristics such as vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between streetcar and light rail systems.

Light rail systems operate more vehicles per day, more hours per week, and over greater distances at higher speeds. As a streetcar system, Dallas Streetcar operates less vehicles per day, less hours per week, and over shorter distances as slower speeds.

Dallas Streetcar will submit data used to identify hazards and analyze, assess, and mitigate safety risk that encompasses a full spectrum of RTA activities. TxDOT and Dallas Streetcar will share data according to the procedures below.

### Data Submission Method, Schedule, and Acceptable Formats:

- Dallas Streetcar shall submit RBI data within the SSO Tracker system. The data will be submitted
  within the RBI module, in the appropriate data section (Safety, Maintenance, Inspection, or
  Additional Safety), and within the appropriate calendar quarter.
- 2) Dallas Streetcar will submit data as follows:
  - a. Safety Data:
    - i. Safety Data used to identify hazards and analyze, assess, and mitigate safety risk.
      - 1. Monthly: 30 calendar days after the end of the month.

### b. Maintenance and Inspection Data:

- i. Maintenance and Inspection Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Quarter 1: Jan, Feb, and Mar. Data due on April 30<sup>th</sup>.
  - 2. Quarter 2: Apr, May, and Jun. Data due on July 30<sup>th</sup>.
  - 3. Quarter 3: Jul, Aug, and Sept. Data due on Oct 30<sup>th</sup>.
  - 4. Quarter 4: Oct, Nov, and Dec. Data due on Jan 30<sup>th</sup>.
- 3) Data shall be submitted in the SSO Tracker system in the following acceptable formats:
  - a. Microsoft Excel
  - b. .CSV files
  - c. Microsoft Word
  - d. Tableau
  - e. Other formats agreed upon such as PDFs, handwritten records, etc.

### **Safety Data**

Each month Dallas Streetcar will submit safety data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. Safety data may include accidents, incidents, hazards, corrective action plans, safety risk mitigations, and records of near misses. Through routine SSO activities TxDOT has access to RTA accident data, SSO reportable hazards, internal hazard tracking, corrective action plans, safety risk mitigations, and near miss reporting.

DSC will submit Safety data each quarter for the requested segments using the procedure below.

- The Director of Safety or Safety Program Manager will submit safety data sets in the RBI Module, Safety Data section in SSO Tracker no later than 30 days after the end of the month, unless a different interval is noted.
- 2) Safety Data sets, including summary reports, submitted by Dallas Streetcar will include:
  - a. Operations Control Center (OCC) Logs (submitted daily)
  - b. Safety committee minutes
  - c. Key performance indicators
- 3) Safety Data sets TxDOT possesses and will use include, but not limited to:
  - a. Accidents,
  - b. SSO reportable hazards,
  - c. RTA internal hazard logs,
  - d. Correct action plans,
  - e. Safety risk mitigations,
  - f. NTD data
  - g. SSO Triennials Audit Reports
  - h. Internal Safety Review Reports

#### **Maintenance and Inspection Data**

Each quarter DART/Dallas Streetcar will submit maintenance and inspection data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. DART/Dallas Streetcar will submit Safety data quarterly using the procedure below.

- 1) The Director of Safety or Safety Program Manager will submit data sets in the SSO Tracker system no later than 30 calendar days after the end of quarter.
- 2) Maintenance and Inspection data sets, including summary data, used to identify hazards and analyze, assess, and mitigate safety risk may include:
  - a. Records of failures and defects
  - b. Work Orders
- 3) Maintenance and Inspection Data TxDOT possesses and will use as RBI data:
  - a. SSO Inspection Reports completed quarterly
  - b. SSO Triennials Audit Reports
  - c. Internal Safety Review Reports

# **Key Dallas Streetcar Contact Information and Addresses**

Name	Job Title	Office Phone	Mobile	Email
Donna Johnson	Chief Safety Officer	(214) 749-	(214)	djohnson2@da
		3334	837-2470	rt.org
Bret Clayborne	Assistant Vice President, Agency	(214) 749-	(945)	bclayborne@d
	Safety & Compliance	3685	536-0645	art.org
Meselech	Senior Manager, Safety Data &	(214) 749-	(214) 952-	mdamte@dart
Damte	Compliance	3304	1648	.org
James Bell	Senior Safety Program Manager	(214) 928-	(214) 846-	jbell1@dart.or
		6010	5822	g
William	Senior Safety Program Manager	(214) 654-	(469) 815-	wsteinberger
Steinberger		4207	2951	@dart.org
Kris Johnson	City of Dallas Streetcar		(214) 713-	
	Representative		4173	@dallas.gov
Evelio	DART Assistant Vice President,	(214) 749-	(214) 923-	ehernandez4@
Hernandez	Streetcar-Systems Engineering	3618	8849	dart.org
On Call Safety	DART On-Call Staff Member		(469) 271-	
Staff			4083	
DART Train	Chief Controller on duty	(214) 928-		
Control (TCC)		6067		
DART Police	Non-emergency Number	(214) 928-		
		6300		

# **Key Addresses:**

Admin offices: DART Headquarters, 1401 Pacific Ave., Dallas, TX 75202

Maintenance yard: DART Central Rail Operations Facility (CROF), 3021 Oak Lane, Dallas, TX 75226

Storage Yard: DART CROF, 3021 Oak Lane, Dallas, TX 75226

Grade Crossings: Meet DART personnel at DART CROF, 3021 Oak Lane, Dallas, TX 75226, and then deploy to grade crossings from CROF.

Stations: Meet DART personnel at DART CROF, 3021 Oak Lane, Dallas, TX 75226, and then deploy to station from CROF.

# **Dallas Area Rapid Transit**

The TxDOT SSO and Dallas Area Rapid Transit Risk-based Inspection Procedures were developed through coordination and consultation between TxDOT and DART staff. Coordination and consultation included onsite meetings, conference calls, email correspondence, and document reviews conducted between TxDOT and DART staff. The following procedures will be reviewed annually and if necessary, updated using a collaborative process defined within the Program Standard and PTASP.

## **Dallas Area Rapid Transit System Overview**

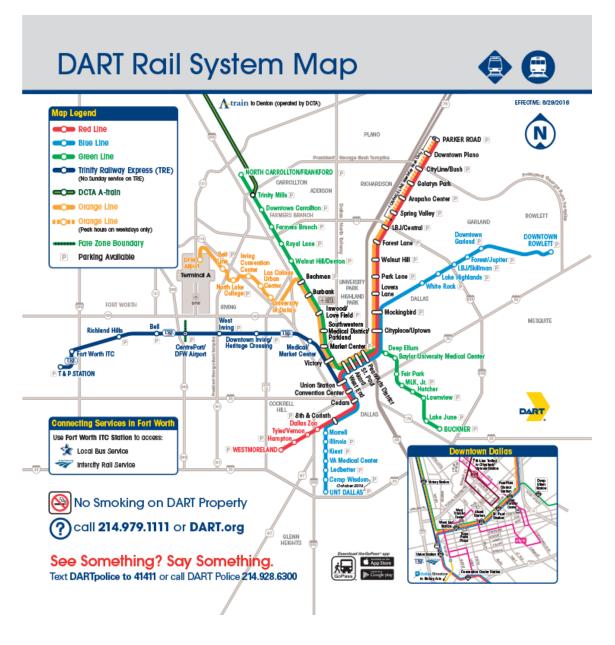
The Dallas Area Rapid Transit (DART) rail system is a modern light rail system operating four light rail lines serving 102 stations with approximately 93 rail miles located throughout the Dallas-Fort Worth Metroplex. Rail lines include the Red, Blue, Green, and Orange Lines. The light rail vehicles used in this system are Siemens S70 and Kinki Sharyo vehicles, which are electrically powered and operate on a standard gauge track. Each vehicle has a capacity of up to 242 passengers.

The DART system uses various signaling technologies to ensure safe and efficient operations. The specific signal type used may vary depending on the different sections of the rail network. Common signaling systems include Automatic Train Control (ATC) and Positive Train Control (PTC) systems. It should be noted that the below Figure includes the Trinity Rail Express and the DCTA A-train which are not portions of the rail system that TxDOT oversees.

### **DART Service Summary**

Line	Days Operated	Hours Operated	Headways	
Red	Monday to Friday	5am to 1am	Mon – Fri: 15 minutes	
	Saturday and Sunday	3am to 1am	Sat – Sun: 20 minutes	
Blue	Monday to Sunday	2am ta 2am	Mon – Fri: 15 minutes	
		3am to 2am	Sat – Sun: 20 minutes	
Green	Monday to Friday	3am to 2am	Mon – Fri: 15 minutes	
	Saturday and Sunday	4am to 2am	Sat – Sun: 20 minutes	
Orange	Manday to Sunday	4am to 2am	Mon – Fri: 15 minutes	
	Monday to Sunday		Sat – Sun: 20 minutes	

## **DART System Map**



## Category 2(a): DART Property Access and Inspection Procedures

The following procedures apply to TxDOT's access to DART infrastructure, equipment, records, personnel, and data.

## **Scheduling Inspections:**

TxDOT will schedule a minimum of four inspections with notice per year at the DART. Inspections are scheduled as part of a two-year cycle with one inspection with notice occurring each calendar quarter.

At its discretion, and as guided by the DART's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section below.

## **Scheduling Inspections With Notice**

Inspections with notice will occur with 1 calendar day or more notice. Although TxDOT may schedule inspections with notice with 1 calendar day or more notice, TxDOT prefers to provide additional notice to allow the RTA time to prepare for the inspection which may require additional time to accommodate data requests and securing track allocation, if necessary.

Inspection with Notice (Announced) Procedure and Timeline:

- The TxDOT Lead Inspector will notify the CSO, Director of Safety, and Rail Safety Manager by email 1 day or more before intended inspection. (Contact information provided with Key Contact section)
  - a. Chief Safety Officer
  - b. Director of Safety
  - c. Rail Safety Manager
- 2) The TxDOT Lead Inspector may also call DART staff to plan inspection activities and discuss required data or track allocation.
  - a. In accordance with DART policy, DART Agency Safety & Compliance personnel who are Light Rail Worker Protection Program (LRWPP)-certified may escort TxDOT inspection team personnel along the DART right-of-way for up to 30 minutes at a time without requiring prior track allocation.
  - b. For inspection activities requiring prior track allocation, such as inspection activities requiring the inspection team to be in DART right-of-way for over 30 minutes, the TxDOT inspection team will submit a request to DART for track allocation. In accordance with DART policy, the inspection team will submit the track allocation request to DART no later than DART's 12:00 noon Central Time Tuesday for that week's track allocation. TxDOT will submit this request the week prior to the week inspection activities are to take place. DART's track allocation meeting takes place weekly on Wednesdays at 2:00 pm Central Time, at which time DART will assign track allocation activities.
- 3) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 4) The TxDOT inspection team with gather at agreed upon location at the date/time of the inspection.

- 5) Inspections with notice will begin at the agreed upon time.
  - a. Unless otherwise specified, inspections will begin at DART's CROF maintenance facility, which is also the DART maintenance facility.

## **Scheduling Inspections Without Notice**

Inspections without notice will occur with no notice. TxDOT will notify the RTA's CSO and other designated personnel of the intent to conduct an unannounced inspection. TxDOT will abide by each RTA's track allocation procedures and timelines to access areas that require adherence to track allocation procedures.

Inspections Without Notice Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the:
  - a. Chief Safety Officer
  - b. Director of Safety, and
  - c. Rail Safety Manager.
  - d. City of DART Representative
  - e. Assistant VP, Streetcar Systems Engineering
  - f. DART Safety On-Call Staff Member
- 2) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 3) The TxDOT inspection team with gather at the agreed upon location until inspection begins.
  - a. The inspection team will gather at DART's CROF maintenance facility, which is also the DART maintenance facility.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and the inspection must begin within 2 hours or less of TxDOT Inspections notification.

## **Inspection Notification Information**

The TxDOT Lead Inspector will provide notifications as described in the Notifications sections above. Notifications, both with and without notice, will contain the following information, but not limited to:

- inspection agenda,
- inspection purpose,
- risk prioritization,
- date and time of inspections,
- locations to be inspected,
- data needed for inspection,
- requested escorts, and
- RTA staff requested to attend.

## Access procedures, including all areas, and required escorts:

The TxDOT SSO staff and SSO Support Contractors have full access through key card or badge to DART's property, including infrastructure, equipment, records, facilities, data, and personnel. However, TxDOT will not attempt to access DART property, including hazardous or security sensitive areas, without an escort.

Hazardous areas may include right-of-way, yard, tunnels, bridges, and electrical infrastructure. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations/crime scenes associated from safety events.

When arriving at RTA's property for inspections, both with and without notice, TxDOT inspectors will gather at an agreed upon locations such as a main entrance, reception area, or other area requested by the RTA, and await an RTA escort.

- 4) The TxDOT inspectors will gather in a safe location at the time stated to in the notification and await the arrival of DART escorts. The following locations shall serve as gathering spots:
  - a. Admin offices:
  - b. Maintenance yard:
  - c. Storage Yard:
  - d. Grade Crossings: Meet DART personnel at DART CROF, then deploy to grade crossing.
  - e. Stations: within the publicly accessible platform area of selected station
- 5) The RTA CSO or delegated staff will ensure required escort(s) and track allocation is provided by the start time of the inspection.
- 6) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and inspection must begin within 3 hours or less of TxDOT Inspections notification.

If track allocation is need then TxDOT will follow DART's track allocation. The process, pertinent details, and times are ss as follows:

- Normal track allocation:
  - o Request deadline: 12:00 noon Tuesday
  - Meeting: 2:00 pm Central Wednesdays
- Emergency track allocation:
  - DART department requesting emergency entry provides briefing to chief controller; qualified DART escort then calls in to TCC, escorts crew on right-of-way (ROW).
- Foul time:
  - DART Agency Safety & Compliance can call into TCC and request foul time. The request need not specify a specific duration, but foul time entry is permitted for only up to 30 minutes. Entries into the ROW over 30 minutes require establishment of a formal work zone.
    - DART counts any hold of rail traffic for over 10 minutes as a service delay.

## **Verification of SSO Inspector Certifications and Trainings:**

The following procedures apply to TxDOT inspectors' pre-inspection briefing, confirmation of adherence to all TxDOT and RTA safety protocol and requirements.

- 1) The TxDOT Lead Inspector will conduct an inspection briefing with the DART escort to review and discuss the following inspection details:
  - a. The TxDOT team lead will provide the agenda and verbally inform the DART of the TxDOT personnel present, inspection purpose, locations to inspect, and schedule.
- 2) The TxDOT Lead Inspector will next ensure each team member physically displays Roadway Worker Protection (RWP) verification to the DART escort. Displaying valid LRWPP demonstrates each inspection team member is authorized to enter locations requiring such certifications.
  - a. Inspectors unable to display valid LRWPP will not enter areas requiring certification.

- 3) The TxDOT Lead Inspector will ask inspection team member to demonstrate to the DART escort the required personal protective gear, which may include:
  - i. name badges,
  - ii. RWP cards,
  - iii. steel-toe or composite-toe boots,
  - iv. appropriate clothing for inspection to be completed,
  - v. RTA approved safety vests
  - vi. protective eyewear,
  - vii. hearing protection,
  - viii. gloves, and
  - ix. hardhats/bumps CAPs.
- 4) The TxDOT Lead Inspector will request a safety briefing from the DART escort to inform or discuss with TxDOT and DART personnel any information necessary for a safe inspection, including any known hazards or safety concerns, and personal electronic device policies.
- 5) The inspection will begin only when the TxDOT Lead Inspector and DART escort have confirmed each step of the inspection briefing, training and PPE verification, and safety briefing.

## Category 2(b): DART Inspection Practices SOP

TxDOT will schedule four inspections with notice at the DART each calendar year. At its discretion, and as guided by the DART's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section above.

## **Inspection Reports Procedure:**

TxDOT will prepare an Inspection Report and complete the procedure as described in the is section. The Inspection Report provided to the RTA which will include the following sections:

- Date and time of inspection,
- TxDOT personnel present, including Inspection Team Lead, and RTA personnel present,
- Location and functional area inspected,
- Description of issues or deficiencies noted, including immediate safety concerns.
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required or recommendations.
- 1) The TxDOT SSO Program Manager will draft and transmit via email a draft Inspection Report to the RTA CSO, Director or Safety, and Rail Safety Manager no later than 30 calendar days after the conclusion of the Inspection. Inspection is considered conducted after the verbal debrief has been concluded by the TxDOT Lead Inspector.
- 2) The RTA CSO, Director or Safety, and Rail Safety Manager will review the draft Inspection Report and comment via email to the TxDOT SSO PM and Support Contractor Project Manager within 10 calendar days of the date TxDOT transmitted the draft report.
- 3) TxDOT will review the comments and issue the final Inspection Report no later than 10 calendar days after the RTA's deadline to submit comments. TxDOT SSO PM and Support Contractor Project Manager will email the final Inspection Report via to the RTA CSO, Director or Safety, and Rail

Safety Manager.TxDOT will upload the Inspection Report into the RBI Module within the SSO Tracker system.

## **Immediate Safety Concerns**

Each member of the TxDOT Inspection team has the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present. Ensuring the safety of all personnel present may include delaying, pausing, or cancelling the inspection, not entering inspection areas, or departing the inspection areas until the safety concern is resolved.

When a safety concern is observed the individual will notify the TxDOT Lead Inspector, who will then notify all TxDOT and personnel present. Depending on the circumstances, the inspector may need to notify:

- DART Train Control Center, Chief Controller on Duty
- DART Police
- DART Safety Staff on Call

The TxDOT Lead Inspector will work with RTA staff to ensure personnel are safe and to reassess the safety of the inspection team. If the inspection cannot safely continue, then TxDOT or the RTA may immediately cancel the inspection. Cancelled inspections for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete or may re-scheduled at a future date.

If the inspection can safely continue, then the TxDOT inspection team will document and photograph the safety concern observed and immediately discuss the issue with the TxDOT and RTA present. At the conclusion of the inspection, TxDOT will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard. The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

#### **Ensuring the Safety of Inspection Personnel:**

- 1) The TxDOT or RTA inspection team members have the right to raise a safety concern(s) at any point in the planning, preparation for, or conducting of an inspection. Examples of safety concerns may include, but not limited to:
  - a. Security concerns such as criminal activity, suspicious person and/or package, or unsafe location,
  - b. Inclement weather or threat of inclement weather,
  - c. Personnel conduct including disregard for safety procedures or suspected fatigue or impairment,
  - d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including but not limited to:
    - i. Rail defects, track related damage, or obstructions.
    - ii. Overhead contact damage, malfunction, or other observed safety concern
    - iii. Signal related damage or malfunction,
    - iv. Vehicle damage or component malfunction
    - v. Facility safety concerns such as fire, electrical, or other life/safety concerns

- e. Any other concern judged by inspection personnel as an immediate safety concern.
- 2) TxDOT or RTA personnel observing a safety concern(s) must immediately report the safety concern to the TxDOT Lead Inspector.
- 3) The TxDOT Lead Inspector will notify all personnel present, including TxDOT and RTA personnel.
- 4) The TxDOT Lead Inspector, with the assistance of RTA personnel, will initiate a safety pause and immediately assess the safety concern to determine if inspection personnel must stop inspection activities and move to a different location to ensure safety.
- 5) The TxDOT Lead Inspector will ensure all personnel are in a safe location.
- 6) The inspection shall not continue until the safety concern has been resolved.
- 7) The TxDOT Lead Inspector will determine if additional RTA must be immediately notified including Dallas Streetcar Police, Train Control, or the Chief Safety Officer.
- 8) The TxDOT Lead Inspector will contact DART contacts as described below:
  - a. DART Police:
    - i. Emergency: 911
    - ii. Non-emergency (phone)
  - b. Train Control (phone)
  - c. DART Safety Staff on Call (phone)
- 9) If the safety concern cannot be resolved, then the TxDOT Lead Inspector or RTA personnel may cancel the inspection and depart the property.
- 10) If the safety concern can be resolved, then the Inspection will resume as soon as the safety issue is resolved.
- 11) The TxDOT Lead Inspector will inform all personnel, including TxDOT and RTA, that the issue has been resolved, and the inspection will resume.
- 12) Inspection may resume upon resolution of safety concern.

#### **Communicating Safety Concerns to RTA**

- The TxDOT Lead Inspector will verbally communicate the immediate safety concern upon discovery as described above, during the inspection conclusion, via email, and as part of the inspection report.
- 2) The TxDOT Lead Inspector will also explain any safety concerns discovered as part of a verbal debrief after the inspection is complete.
- 3) Within 24 hours of inspection conclusion, the TxDOT Inspection Lead will send via email, to the CSO and Director of Safety, a summary of the safety concern observed, including details of what the safety concern, explanation of why it is a safety concern, photographs, or other documentation pertinent to the concern.
- 4) TxDOT will also include the immediate safety concern within the inspection report.
- 5) TxDOT will coordinate with the CSO and safety staff to ensure the safety concern is managed in accordance with safety risk management requirements within the Program Standard and PTASP. Such actions could include documentation of a hazard, corrective action, including an emergency corrective action, and further investigation from RTA personnel including RTA safety staff or the RTA safety committee.

## Inspections of Equipment, Infrastructure, & Practices Specific to Each RTA

The following procedure will define the DART equipment, infrastructure, and practices present (broad) and the inspection frequencies and practices (specific) that TxDOT will consider when determining inspection areas.

TxDOT may conduct inspections of any infrastructure, equipment, locations, records, personnel, and data of the RTA's rail system. Any property or personnel (employee or contractor) performing work related to the rail system could be the subject of a TxDOT SSO inspection.

The DART rail system is comprised of the following areas:

- 1) Rail Vehicles includes 163 light rail vehicles.
- 2) Track inspection and maintenance consists of 93 miles spanning 102 stations in addition to yard track structures including ballasted track, embedded track, direct fixation track, and bridges.
- 3) Traction Power System consists of two functional subsystems: Traction Power Substations and Overhead Contact System.
- 4) Signals consists of interlockings, main line train control, conventional and audio track circuits, axle counters, highway crossings devices, centralized traffic control, PA/PIS, and cameras.
- 5) Facilities including stations.
- 6) Public Transportation Agency Safety Plan and associated plans, documents, policies, and procedures.

#### **Event Verification**

TxDOT and RTAs coordinate throughout the accident investigation process as described in Section 7: Accident Investigation of the TxDOT SSO Program Standard. The following section summarizes how TxDOT conducts Event Verification to RBI related investigation and safety risk identification processes.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and thoroughness of RTA completed investigations. As part of accident oversight, TxDOT reviews the RTA's findings of causation and determines if a corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes accidents and incidents individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal characteristics. These metrics aid in understanding probable and contributing causes, and guide identification of safety risk.

TxDOT also requires the RTAs to provide information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair need to return damaged items to service. TxDOT verifies repairs and return to service through review of documentation which may include workorders, repair summaries, or photographs. TxDOT may also verify repairs and return to as part of inspection activities.

## **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assesses each RTA to determine the functional areas and associated infrastructure, equipment, facilities, and procedures of each system. TxDOT then divides the functional areas into a two-year cycle divided into calendar quarters.

In addition to ongoing monitoring throughout the two-year period, TxDOT conducts monthly conference calls to discuss safety events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitor efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination related to risk profile.

To establish the ongoing monitoring inspection schedule, TxDOT uses the following process.:

- 1) The TxDOT and SSO Support Contractors will develop a two-year calendar prior to implementation of the RBI program.
- 2) The two-year calendar will be divided into quarters, and each quarter will be assigned a functional area of the RTA.
  - a. DARTS's functional areas include:
    - i. Track
    - ii. Signals
    - iii. Traction Power Systems
    - iv. Vehicles
    - v. Facilities
    - vi. Training
    - vii. PTASP compliance, including plans, documents, policies, and procedures.
- 3) During the quarter, TxDOT will perform an announced inspection to observe and inspect the functional area selected for review. The inspection will consist of the following activities:
  - a. Review of past and current data
  - b. Discussions with RTA staff
  - c. Observations of task performance
  - d. Inspection of infrastructure, equipment, vehicles, or data.
  - e. Verification of accident, incident, corrective action, or mitigation implementation.
- 4) Inspection activities are documented with an inspection report within 30 days of monitoring activities.

#### **Defects and Corrective or Remedial Actions**

TxDOT will monitor RTA defects, corrective and remedial action detection, tracking, and resolution as part of the RBI process. TxDOT requires RTAs to provide share data on the most severe defects discovered and the efforts leading to defect resolution. TxDOT will track defects by number and severity to ensure each RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also require documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

#### **CAP and Safety Risk Mitigation Verification**

TxDOT coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from, but not limited to:

- investigations,
- risk-based inspections,
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures, or
- FTA or SSO direction.

The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT to close a CAP once identified actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, an attached documentation, uploaded pictures verifying completion, or onsite review verifying completion.

TxDOT also requires coordination on safety risk mitigations as specified in the Program Standard, section 8.6 Monitoring of RTA Hazard. To summarize, TxDOT requires RTAs to submit quarterly logs that summarize safety risk management information including:

- Date issue discovered.
- Summary or description of safety risk, including location.
- Assessment including probability and severity.
- Responsible RTA department or employee tasked with resolving the issue.
- Status of hazard or risk resolution, including mitigations or corrective actions implemented.

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative issue such as policy, procedure, and documentation improvements are monitored and verified primarily through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure are verified through a combination of documentation reviews and onsite inspections. Mitigations and

corrective actions involving implementation operations, maintenance, or safety practices are monitored through observation-based inspections referenced with the Ongoing Monitoring section above.

## Category 3(a): DART Data Procedures

As described in Category 5, TxDOT uses NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity. Rail agency characteristics such as vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between light rail and streetcar systems.

TxDOT recognizes the differences in size and complexity between light rail and streetcar systems. DART operates less vehicles per day, less hours per week, and over shorter distances as slower speeds. As a light rail system, DART will submit data used to identify hazards and analyze, assess, and mitigate safety risk that encompasses a full spectrum of RTA activities. TxDOT and DART will share data according to the procedures below.

## Data Submission Method, Schedule, Quantity, and Acceptable Formats:

- 1) DART shall submit RBI data within the SSO Tracker system. The data will be submitted within the RBI module, in the appropriate data section (Safety, Maintenance, Inspection, or Additional Safety), and within the appropriate calendar quarter.
- 2) DART will submit data no later than 30 calendar days after the end of the reporting period.
  - a. Safety Data:
    - i. Safety Data used to identify hazards and analyze, assess, and mitigate safety risk.
      - 1. Monthly: 30 calendar days after the end of the month.

## b. Maintenance and Inspection Data:

- i. Maintenance and Inspection Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Quarter 1: Jan, Feb, and Mar. Data due on April 30<sup>th</sup>.
  - 2. Quarter 2: Apr, May, and Jun. Data due on July 30<sup>th</sup>.
  - 3. Quarter 3: Jul, Aug, and Sept. Data due on Oct 30<sup>th</sup>.
  - 4. Quarter 4: Oct, Nov, and Dec. Data due on Jan 30th.

## c. Additional Safety Data:

- i. As requested.
- 3) Data shall be submitted in the SSO Tracker system in the following acceptable formats:
  - a. Microsoft Excel
  - b. .CSV files
  - c. Tableau
  - d. Other formats agreed upon.

## **Safety Data**

Each month the RTA will submit safety data summaries and detailed safety data sets, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. Safety data sets may include accidents, incidents, hazards, corrective action plans, safety risk mitigations, and records of near misses. Through routine SSO activities TxDOT has access to RTA accident data, SSO reportable hazards, internal hazard tracking, corrective action plans, safety risk mitigations, and near miss reporting. The RTA will submit Safety data each month using the procedure below.

- Director of Safety or Safety Program Manager will submit safety data sets in the RBI Module, Safety Data section in SSO Tracker no later than 30 calendar days after the end of quarter, unless otherwise noted.
- 2) Safety Data sets, including summary reports, submitted by DART will include:
  - a. Unusual occurrence Logs (submitted daily)
  - b. Safety committee minutes
  - c. Key performance indicators
- 3) Safety Data sets TxDOT possesses and will use include:
  - a. Accidents,
  - b. SSO reportable hazards,
  - c. RTA internal hazard logs,
  - d. Corrective action plans,
  - e. Safety risk mitigations,
  - f. Near miss reporting,
  - g. NTD data,
  - h. SSO Triennials Audit Reports,
  - i. Internal Safety Review Reports.

## **Maintenance and Inspection Data**

Each quarter DART will submit maintenance and inspection data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. DART will submit maintenance and inspection data sets quarterly using the procedure below.

- Director of Safety or Safety Program Manager will submit maintenance and inspection data in the RBI Module, Rail Vehicle section in SSO Tracker no later than 30 days after the end of quarter.
- 2) Maintenance and Inspection data sets, including summary data, used to identify hazards and analyze, assess, and mitigate safety risk may include:
  - f. Records of failures and defects
  - g. Work Orders
- 3) Maintenance and Inspection Data TxDOT possesses and will use as RBI data:
  - a. SSO Inspection Reports completed quarterly
  - b. SSO Triennials Audit Reports
  - c. Internal Safety Review Reports
  - d. Safety Committee minutes

# **Key DART Contact Information and Addresses**

		Office			
Name	Job Title	Phone	Mobile	Email	
Donna Johnson	Chief Cefety Officer	(214) 749-	(214) 837-	djohnson2@dar	
Donna Johnson	Chief Safety Officer	3334	2470	t.org	
Durat Clauda a un a	Assistant Vice President, Agency	(214) 749-	(945) 536-	bclayborne@da	
Bret Clayborne	Safety & Compliance	3685	0645	rt.org	
Meselech Damte	Senior Manager, Safety Data &	(214) 749-	(214) 952-	mdamte@dart.	
Meselecti Dainte	Compliance	3304	1648	org	
James Bell	Senior Safety Program Manager	(214) 928-	(214) 846-	jbell1@dart.org	
James Dell	Senior Safety Program Manager	6010	5822	Jueni i @ dan t.org	
William	Senior Safety Program Manager	(214) 654-	(469) 815-	wsteinberger@	
Steinberger	Semon Safety Program Manager	4207	2951	dart.org	
On Call Safety	DART On-Call Staff Member		(469) 271-		
Staff	DANT OII-Call Stall Methbel		4083		
DART Train	Chief Controller on duty	(214) 928-			
Control (TCC)	Chief Controller on duty	6067			
DART Police	Non operational Number	(214) 928-			
DANT FUILLE	Non-emergency Number	6300			

# **Key Addresses**

Admin offices: DART Headquarters, 1401 Pacific Ave., Dallas, TX 75202

Maintenance yard: DART Central Rail Operations Facility (CROF), 3021 Oak Lane, Dallas, TX 75226

Storage Yard: DART CROF, 3021 Oak Lane, Dallas, TX 75226

Grade Crossings: Meet DART personnel at DART CROF, 3021 Oak Lane, Dallas, TX 75226, and then deploy to grade crossings from CROF.

Stations: Meet DART personnel at DART CROF, 3021 Oak Lane, Dallas, TX 75226, and then deploy to station from CROF.

## El Paso Streetcar

The TxDOT SSO and El Paso Streetcar Risk-based Inspection Procedures were developed through coordination and consultation between TxDOT and EPSC staff. Coordination and consultation included onsite meetings, conference calls, email correspondence, and document reviews conducted between TxDOT and EPSC staff. The following procedures will be reviewed annually and if necessary, updated using a collaborative process defined within the Program Standard and PTASP.

## **El Paso Streetcar System Overview**

The El Paso Streetcar is a heritage streetcar system that operates in downtown El Paso, Texas. The streetcar vehicles used in this system are vintage Presidents' Conference Committee (PCC) streetcars, which were originally built in the 1930s and 1940s. The 4.8-mile route serving 27 stops serves the community from Wednesday to Saturday. The streetcars have been restored and equipped with modern amenities such as air conditioning, wheelchair access, and bike racks. The system includes signaling and communication systems, platform doors, and fare collection equipment.

## **El Paso Streetcar Service Summary**

Line	Days Operated	Hours Operated	Headways	
Streetcar	Monday-Thursday Friday	7am to 7pm 7am to 11pm	Every 20 minutes	
	Saturday Sunday	7am to 11pm Noon to 6pm		

# **EPSC System Map**



## Category 2(a): El Paso Streetcar Property Access and Inspection Procedures

The following procedures apply to TxDOT's access to El Paso Streetcar (EPSC) infrastructure, equipment, records, personnel, and data.

## **Scheduling Inspections:**

TxDOT will schedule a minimum of four inspections with notice per year with the El Paso Streetcar. Inspections are scheduled as part of a two-year cycle with one inspection with notice occurring each calendar quarter.

At its discretion, and as guided by the EPSC's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section below.

## **Scheduling Inspections With Notice**

Inspections with notice will occur with 1 calendar day or more notice. Although TxDOT may schedule inspections with notice with 1 calendar day or more notice, TxDOT prefers to provide additional notice to allow the RTA time to prepare for the inspection, which may require additional time to accommodate data requests and securing track allocation, if necessary.

Inspection with Notice (Announced) Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the following individuals by email 1 day or more before intended inspection. (Contact information provided with Key Contact section)
  - a. Chief Safety Officer
  - b. Rail Safety Officer
- 2) The TxDOT Lead Inspector may also call EPSC staff to plan inspection activities and discuss required data or track allocation.
- 3) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 4) The TxDOT inspection team with gather at the agreed upon location at the date and time of the inspection.
- 5) Inspections with notice will begin at the agreed upon time.

## **Scheduling Inspections Without Notice**

Inspections without notice will occur with no notice. TxDOT will notify the RTA's CSO and other designated personnel of the intent to conduct an unannounced inspection. TxDOT will abide by each RTA's track allocation procedures and timelines to access areas that require adherence to track allocation procedures.

Inspections Without Notice Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the:
  - a. Chief Safety Officer,
  - b. Streetcar Safety Manager,
  - c. Streetcar Superintendent of Operations by email, telephone, or in-person at the time of the inspection.

- 2) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 3) The TxDOT inspection team with gather at the agreed upon location until inspection begins.
  - a. The inspection team will gather at EPSC's maintenance facility.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and the inspection must begin within 2 hours or less of TxDOT Inspections notification.

## **Inspection Notification Information**

The TxDOT Lead Inspector will provide notifications as described in the Notifications sections above. Notifications, both with and without notice, will contain the following information:

- inspection agenda,
- inspection purpose,
- risk prioritization,
- date and time of inspections,
- locations to be inspected,
- data needed for inspection,
- requested escorts, and
- RTA staff requested to attend.

## Access procedures, including all areas, and required escorts:

The TxDOT SSO staff and SSO Support Contractors have full access through key card to EPSC's property, including infrastructure, equipment, records, facilities, data, and personnel. However, TxDOT will not attempt to access EPSC property, including hazardous or security sensitive areas, without an escort.

Hazardous areas may include right-of-way, yard, tunnels, bridges, and electrical infrastructure. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations/crime scenes associated from safety events.

When arriving at the RTA's property for inspections, both with and without notice, TxDOT inspectors will gather at an agreed upon locations such as a main entrance, reception area, or other area requested by the RTA, and await an RTA escort.

- 1) The TxDOT inspectors will gather in a safe location at the time stated to in the notification and await the arrival of EPSC escorts. The following locations shall serve as gathering spots:
  - a. Maintenance and Storage Facility (MSF): 601-A Santa Fe St. El Paso, TX 79901
  - b. Grade Crossings: (nearest public sidewalk adjacent to the crossing)
  - c. Stations: (within the publicly accessible platform area)
- 2) The TxDOT Lead Inspector will facilitate team introductions between the TxDOT and El Paso Streetcar escorts and team
- 3) The RTA CSO or delegated staff will ensure required escort(s) and track allocation is provided by the start time of the inspection.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and inspection must begin within 3 hours or less of TxDOT Inspections notification.

If track allocation is need then TxDOT will follow EPSC's track allocation. The process, pertinent details, and times are ss as follows:

- Normal track allocation:
- Emergency track allocation:
- Foul time:

In instances when track allocation or required escorts cannot accommodate an unannounced inspection TxDOT may consider rescheduling the inspection at a mutually agreeable time. In emergency or exigent circumstances TxDOT may invoke authorities necessary to cease operation (emergency order under TAC 7.95), gain emergency track allocation or foul time, and conduct inspections on TxDOT's schedule

## **Verification of SSO Inspector Certifications and Trainings**

The following procedures apply to TxDOT inspectors' pre-inspection briefing, confirmation of adherence to all TxDOT and EPSC safety protocol and requirements.

- 1) The TxDOT Lead Inspector will conduct an inspection briefing with the EPSC escort to review and discuss the following inspection details:
- 2) The TxDOT team lead will provide the agenda and verbally inform the RTA of the TxDOT personnel present, inspection purpose, locations to inspect, and schedule.
- 3) The TxDOT Lead Inspector will next ensure each team member physically displays Roadway Worker Protection (RWP) verification to the RTA escort. Displaying valid RWP demonstrates each inspection team member is authorized to enter locations requiring such certifications.
  - a. Inspectors unable to display valid RWP will not enter areas requiring certification.
- 4) The TxDOT Lead Inspector will ask inspection team member to demonstrate to the DART escort the required personal protective gear, which may include:
  - a. name badges,
  - b. RWP cards,
  - c. steel-toe or composite-toe boots,
  - d. appropriate clothing for inspection to be completed,
  - e. RTA approved safety vests,
  - f. protective eyewear,
  - g. hearing protection,
  - h. gloves, and
  - i. hardhats/bumps CAPs.
- 5) The TxDOT Lead Inspector will request a safety briefing from the RTA escort to inform or discuss with TxDOT and RTA personnel any information necessary for a safe inspection, including any known hazards or safety concerns, and personal electronic device policies.
- 6) The inspection will begin only when the TxDOT Lead Inspector and the RTA escort have confirmed each step of the inspection briefing, training and PPE verification, and safety briefing.

## Category 2(b): EPSC Inspection Practices SOP

TxDOT will schedule four inspections with notice at El Paso Streetcar each calendar year. At its discretion, and as guided by EPSC's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the sections above.

## **Inspection Reports Procedure**

TxDOT and the EPSC will implement the following Inspection Report procedure.

- 1) TxDOT will email the Streetcar Safety Manager, Chief Streetcar Officer, or Streetcar Superintendent of Operations a word version of Inspection Report no later than 30 days after completion of the inspection.
- The RTA will have 10 days to review and respond via email to the TxDOT SSO PM and Contractor Project Manager with any correction, clarification, or revision requests.
- 3) TxDOT will factor in the RTA's response and the TxDOT will send the final Inspection Report via email not later than 10 days after the RTA's draft Inspection Report response.
- 4) TxDOT will also upload the Inspection Report into the RTA RBI Module within the SSO Tracker system.

The Inspection Report provided to the RTA which will include the following sections:

- Date and time of inspection,
- TxDOT personnel present, including Inspection Team Lead, and RTA personnel present,
- Location and functional area inspected,
- Description of issues or deficiencies noted, including immediate safety concerns,
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required or recommendations.

#### **Immediate Safety Concerns**

Each member of the TxDOT Inspection team has the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present. Ensuring safety of all personnel present may include delaying, pausing, or cancelling the inspection, not entering inspection areas, or departing the inspection areas until the safety concern is resolved.

When a safety concern is observed the individual will notify the TxDOT Lead Inspector, who will then notify all TxDOT and personnel present. Depending on the circumstances, the inspector may need to notify:

- dispatch,
- law enforcement personnel, or
- Streetcar Safety Manager

The TxDOT Lead Inspector will work together with RTA staff to ensure personnel are in a safe location and to reassess the safety of the inspection team. If the inspection cannot safely continue, then TxDOT or the RTA may immediately cancel the inspection. Cancelled inspections for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete or may re-scheduled at a future date.

If the inspection can safely continue, then the TxDOT inspection team will document and photograph the safety concern observed and immediately discuss the issue with the TxDOT and RTA present. At the conclusion of the inspection, TxDOT will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard. The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

## **Ensuring the Safety of Inspection Personnel:**

- 1) Inspection team members have the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. Examples of safety concerns may include:
  - a. Security concerns such as criminal activity, suspicious person and/or package, or unsafe location,
  - b. Inclement weather or threat of inclement weather,
  - c. Personnel conduct including disregard for safety procedures or suspected fatigue or impairment,
  - d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including but not limited to:
    - i. Rail defects, track related damage, or obstructions.
    - ii. Overhead contact damage, malfunction, or other observed safety concern
    - iii. Signal related damage or malfunction,
    - iv. Vehicle damage or component malfunction
    - v. Facility safety concerns such as fire, electrical, or other life/safety concerns
  - e. Any other concern judged by inspection personnel as an immediate safety concern.
- 2) TxDOT or EPSC personnel observing a safety concern must immediately report the safety concern to the TxDOT Lead Inspector and EPSC escort.
- 3) The TxDOT Lead Inspector will immediately notify all personnel present, including TxDOT and EPSC personnel.
- 4) The TxDOT Lead Inspector and EPSC personnel will immediately assess the safety concern to determine if inspection personnel must stop inspection activities and move to a different location to ensure safety.
- 5) The TxDOT Lead Inspector will ensure all personnel are in a safe location.
- 6) The inspection shall not continue until the safety concern has been resolved.
- 7) The TxDOT Lead Inspector and escort will determine if additional individuals require notification.
- 8) The TxDOT Lead Inspector will notify the EPSC contacts below:
  - a. El Paso Police Department:
    - i. Emergency.
    - ii. Non-emergency.
  - b. Streetcar Safety Manager
  - c. Chief Streetcar Officer
  - d. Streetcar Superintendent of Operations
- 9) If the safety concern cannot be resolved, then the TxDOT Lead Inspector or EPSC personnel may cancel the inspection and depart the property.

- 10) If the safety concern can be resolved, then the Inspection will resume as soon as the safety issue is resolved.
- 11) The TxDOT Lead Inspector will inform all personnel, including TxDOT and EPSC, that the issue is resolved, and the inspection will resume.
- 12) Inspection may resume upon resolution of safety concern.

## **Communicating Safety Concerns to EPSC**

- The TxDOT Lead Inspector will verbally communicate the immediate safety concern upon discovery as described above, during the inspection conclusion, via email, and as part of the inspection report.
- 2) The TxDOT Lead Inspector will also explain any safety concerns discovered as part of a verbal debrief after the inspection is complete.
- 3) Within 24 hours of inspection conclusion, the TxDOT Inspection Lead will send via email, to the Streetcar Safety Manager and Chief Streetcar Officer, a summary of the safety concern observed, including details of what the safety concern, explanation of why it is a safety concern, photographs, or other documentation pertinent to the concern.
- 4) TxDOT will also include the immediate safety concern within the inspection report.
- 5) TxDOT will coordinate with the CSO and safety staff to ensure the safety concern is managed in accordance with safety risk management requirements within the Program Standard and PTASP. Such actions could include documentation of a hazard, corrective action, including an emergency corrective action, and further investigation from EPSC personnel including safety staff or the safety committee.

## Inspections of Equipment, Infrastructure, & Practices Specific to Each RTA

The following procedure defines the EPSC equipment, infrastructure, and practices present (broad) and the inspection frequencies and practices (specific) that TxDOT will consider when determining inspection areas.

TxDOT may conduct inspections of any infrastructure, equipment, locations, records, personnel, and data of the RTA's rail system. Any property or personnel (employee or contractor) performing work related to the rail system could be the subject of a TxDOT SSO inspection.

The El Paso Streetcar rail system is comprised of the following areas:

- 1) Six vintage PCC Streetcars
- 2) Track inspection and maintenance consists of 4.3 miles of embedded track spanning 27 stations in addition to yard track and bridges.
- 3) Traction Power System consists of four Traction Power Substations and Overhead Contact System.
- 4) Signals consist of two interlockings, and five bar signals.
- 5) Facilities include 27 stations.
- 6) Public Transportation Agency Safety Plan and associated plans, documents, policies, and procedures.

#### **Event Verification**

TxDOT and EPSCs coordinate throughout the accident investigation process as described in Section 7: Accident Investigation of the TxDOT SSO Program Standard. The following section summarizes how TxDOT conducts Event Verification to RBI related investigation and safety risk identification processes.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and thoroughness of RTA completed investigations. As part of accident oversight, TxDOT reviews the RTA's findings of causation and determines if corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes accidents and incidents individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal characteristics. These metrics aid in understanding probable and contributing causes, and guide identification of safety risk.

TxDOT also requires EPSC to provide information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair need to return damaged items to service. TxDOT verifies repairs and return to service through review of documentation which may include workorders, repair summaries, or photographs. TxDOT may also verify repairs and return to as part of inspection activities.

## **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assesses each RTA to determine the functional areas and associated infrastructure, equipment, facilities, and procedures of each system. TxDOT then divides the functional areas into a two-year cycle divided into calendar quarters.

In addition to ongoing monitoring throughout the two-year period, TxDOT conducts monthly conference calls to discuss safety events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitor efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination related to risk profile.

To establish the ongoing monitoring inspection schedule, TxDOT uses the following process.:

- 1) TxDOT and the SSO Support Contractors will develop a two-year calendar prior to implementation of the RBI program.
- 2) The two-year calendar will be divided into quarters, and each quarter will be assigned a functional area of the RTA.
  - a. EPSC's functional areas include:
    - i. Track
    - ii. Signals

- iii. Traction Power Systems
- iv. Vehicles
- v. Facilities
- vi. Training
- vii. PTASP compliance, including plans, documents, policies, and procedures.
- 3) During each quarter, TxDOT will perform an announced inspection to observe and inspect the functional area selected for review. The inspection will consist of the following activities:
  - a. Review of past and current data
  - b. Discussions with RTA staff
  - c. Observations of task performance
  - d. Inspection of infrastructure, equipment, vehicles, or data.
  - e. Verification of accident, incident, corrective action, or mitigation implementation.
- 4) Inspection activities are documented with an inspection report within 30 days of monitoring activities.

#### **Defects and Corrective or Remedial Actions**

TxDOT will monitor EPSC defects, corrective and remedial action detection, tracking, and resolution as part of the RBI process. TxDOT requires RTAs to provide share data on the most severe defects discovered and the efforts leading to defect resolution. TxDOT will track defects by number and severity to ensure each RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also require documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

## **CAP and Safety Risk Mitigation Verification**

TxDOT coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from, but not limited to:

- investigations,
- risk-based inspections,
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures, or
- FTA or SSO direction.

Hazards identified for mitigation reported to TxDOT will be evaluated to determine needs for CAP creation. The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT close a CAP once identified actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, an attached documentation, uploaded pictures verifying completion, or onsite review verifying completion.

TxDOT also requires coordination on safety risk mitigations as specified in the Program Standard, section 8.6 Monitoring of RTA Hazard. To summarize, TxDOT requires RTAs to submit quarterly logs that summarize safety risk management information including:

- Date issue discovered
- Summary or description of safety risk, including location.
- Assessment including probability and severity
- Responsible RTA department or employee tasked with resolving the issue
- Status of hazard or risk resolution, including mitigations or corrective actions implemented.

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative issue such as policy, procedure, and documentation improvements are monitored and verified primarily through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure are verified through a combination of documentation reviews and onsite inspections. Mitigations and corrective actions involving implementation operations, maintenance, or safety practices are monitored through observation-based inspections referenced with the Ongoing Monitoring section above.

## Category 3(a): EPSC Data Procedures

TxDOT recognizes the differences in size and complexity between light rail and streetcar systems. As described in Category 5, TxDOT uses NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity. Rail agency characteristics such as vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between streetcar and light rail systems.

Light rail systems operate more vehicles per day, more hours per week, and over greater distances at higher speeds. As a streetcar system, El Paso Streetcar operates less vehicles per day, less hours per week, and over shorter distances at slower speeds.

EPSC will submit data used to identify hazards and analyze, assess, and mitigate safety risk that encompasses a full spectrum of RTA activities. TxDOT and EPSC will share data according to the procedures below.

## Data Submission Method, Schedule, Quantity, and Acceptable Formats:

- 1) El Paso Streetcar shall submit RBI data within the SSO Tracker system. The data will be submitted within the RBI module, in the appropriate data section (Safety, Maintenance, Inspection, or Additional Safety), and within the appropriate calendar quarter.
- 2) El Paso Streetcar will submit data as follows:
  - a. Safety Data:
    - i. Safety Data used to identify hazards and analyze, assess, and mitigate safety risk.
      - 1. Monthly: 30 days after the end of the month.

#### b. Maintenance and Inspection Data:

- i. Maintenance and Inspection Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Quarter 1: Jan, Feb, and Mar. Data due on April 30<sup>th</sup>.
  - 2. Quarter 2: Apr, May, and Jun. Data due on July 30<sup>th</sup>.
  - 3. Quarter 3: Jul, Aug, and Sept. Data due on Oct 30<sup>th</sup>.
  - 4. Quarter 4: Oct, Nov, and Dec. Data due on Jan 30<sup>th</sup>.
- 3) Data shall be submitted in the following acceptable formats:
  - a. Microsoft Excel
  - b. .CSV files
  - c. Microsoft Word
  - d. Tableau
  - e. Other formats agreed upon such as PDFs, handwritten records, etc.

## **Safety Data**

Each month EPSC will submit safety data sets used to identify hazards and analyze, assess, and mitigate safety risk, including summary data reports, as part of TxDOT's RBI data requirements. Safety data sets may include accidents, incidents, hazards, corrective action plans, safety risk mitigations, and records of near misses. Through routine SSO activities TxDOT has access to RTA accident data, SSO reportable hazards, internal hazard tracking, corrective action plans, safety risk mitigations, and near miss reporting. EPSC will submit Safety data each quarter for the requested segments using the procedure below.

- The Streetcar Safety Manager will submit safety data sets in the RBI Module, Safety Data section in SSO Tracker no later than 30 calendar days after the end of the month, unless a different interval is noted.
- 2) Safety Data sets, including summary reports, submitted by El Paso Streetcar will include:
  - a. Observation Ride checks
  - b. DVR Pull Communication Log
  - c. Daily Operations Summary (Dispatch Log)
  - d. Employee/Occupational Injury reports (Employee Incident Log)
  - e. Monthly Hazard Logs
  - f. Master Log, which include the following information
    - i. Blockages
    - ii. Accidents
    - iii. Incidents
    - iv. Occurrences
    - v. Unusual Occurrences
    - vi. SMS Employee Reporting
    - vii. Assaults to Transit Employees
  - g. System Reliability (EPSC Reliability Report)
  - h. Internal Safety Review Reports (Per TxDOT SSOPS Section 4.7)
- 3) Safety Data sets TxDOT possesses and will use include:
  - a. SSO Tracker Data
    - i. Accidents,
    - ii. SSO reportable hazards,
    - iii. Corrective Action Plans
    - iv. Safety Risk Mitigations
  - b. NTD data
  - c. SSO Triennials Audit Reports

## **Maintenance and Inspection Data**

Each quarter El Paso Streetcar will submit maintenance and inspection data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk.

- 1) Streetcar Safety Manager or Designee will submit data sets in the SSO Tracker system no later than 30 calendar days after the end of quarter.
- 2) Maintenance and Inspection data sets, including summary data, used for the identification and assessment of safety risk may include:
  - a. Master Log
- 3) Maintenance and Inspection data TxDOT possesses and will use as RBI data may include:
  - a. SSO Inspection Reports completed quarterly
  - b. SSO Triennials Audit Reports
  - c. Internal Safety Review Reports

# **Key EPSC Contact Information and Addresses**

				_
Name	Title	Office Phone	Mobile	Email
Johnny	Streetcar Safety	(915) 212-3466	(915) 255-	BalcazarJM@elpasote
Balcazar	Manager/Interim SMS		6085	xas.gov
	Executive			
Anthony	Director of Mass Transit	915.212.3306	(915) 979-	DekeyzerAR@elpasot
Dekeyzer			6330	exas.gov
Everett	Chief Streetcar Officer	915.212.3464		EsparzaEX@elpasotex
Esparza				as.gov
Felix Minjarez	Streetcar Superintendent of	915-212-3455	915-873-	MinjarezFH@elpasote
	Operations		7605	xas.gov
Jaime Ortega	Streetcar Maintenance			OrtegaJJ@elpasotexas
	Supervisor			.gov
	Streetcar Safety and		915-491-	PereaLD@elpasotexas
Lynette Perea	Security Officer	915-212-3465	7981	.gov
		915-212-3460		
		915-212-3461		
Dispatch	EPSC Dispatch	915-212-3454		
After Hours				
Dispatch	EPSC After Hours Dispatch	915-212-3425		

# **Key Addresses:**

EPSC Dispatch: 601-A Santa Fe St., El Paso, TX 79901

Maintenance and Storage Facility (MSF): 601-A Santa Fe St. El Paso, TX 79901

Grade Crossings: (nearest public sidewalk adjacent to the crossing)

Stations: (within the publicly accessible platform area)

# **McKinney Avenue Transit Authority**

The TxDOT SSO and McKinney Avenue Transit Authority (MATA) Risk-based Inspection Procedures were developed through coordination and consultation between TxDOT and MATA staff. Coordination and consultation included onsite meetings, conference calls, email correspondence, and document reviews conducted between TxDOT and MATA staff. The following procedures will be reviewed annually and if necessary updated using a collaborative process defined within the Program Standard and PTASP.

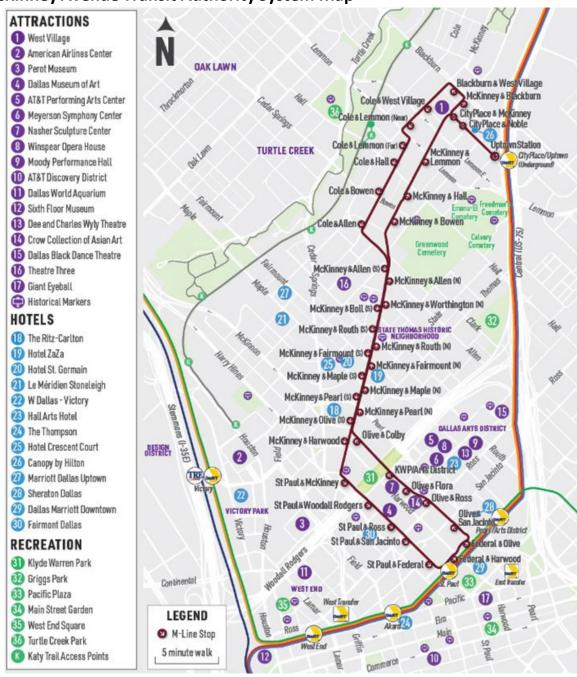
## **McKinney Avenue Transit Authority System Overview**

The McKinney Avenue Transit Authority (MATA) rail system is a heritage rail system that operates along the McKinney Avenue corridor in the Uptown area of Dallas. The system features seven historic streetcars, two of which are Presidents' Conference Committee (PCC) trolleys and serves a 4.6-mile route.

## **McKinney Avenue Transit Authority Service Summary**

Line	Days Operated	Hours	Headways	
		Operated		
Streetcar	Monday-Thursday	7am to 10pm		
	Friday	7am to 12pm	Every 20 minutes	
	Saturday	10am to 12pm		
	Sunday	10am to 10pm		

## **McKinney Avenue Transit Authority System Map**



# Category 2(a): McKinney Avenue Transit Authority Property Access and Inspection Procedures

The following procedures apply to TxDOT's access to McKinney Avenue Transit Authority (MATA) infrastructure, equipment, records, personnel, and data.

## **Scheduling Inspections:**

TxDOT will schedule a minimum of four inspections with notice per year with the McKinney Avenue Transit Authority. Inspections are scheduled as part of a two-year cycle with one inspection with notice occurring each calendar quarter.

At its discretion, and as guided by the MATA's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section below.

## **Scheduling Inspections With Notice**

Inspections with notice will occur with 1 calendar day or more notice. Although TxDOT may schedule inspections with notice with 1 calendar day or more notice, TxDOT prefers to provide additional notice to allow the RTA time to prepare for the inspection, which may require additional time to accommodate data requests and securing track allocation, if necessary.

Inspection with Notice (Announced) Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the following individuals by email 1 day or more before intended inspection. (Contact information provided with Key Contact section)
  - a. Chief Safety Officer James (Jim) Kenny, jkenny@mata.org, (858) 204-8577 (mobile)
  - b. President Victor (Vic) Cervantes, vcervantes@mata.org, (972) 567-1024 (mobile)
  - a. Director of Maintenance Doug Johnston, djohnston@mata.org (325) 721-1787 (mobile)
  - c. Vice President of Systems and Technology John Landrum, jlandrum@mata.org, (214) 727-2919 (mobile)
- 2) The TxDOT Lead Inspector may also call MATA staff to plan inspection activities and discuss required data or track allocation.
- 3) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 4) The TxDOT inspection team with gather at the agreed upon location at the date and time of the inspection.
- 5) Inspections with notice will begin at the agreed upon time.
  - a. Unless otherwise specified, inspections will begin at the MATA trolley barn at 3153 Oak Grove Ave., Dallas, TX 75204

#### **Scheduling Inspections Without Notice**

Inspections without notice will occur with no notice. TxDOT will notify the RTA's CSO and other designated personnel of the intent to conduct an unannounced inspection. TxDOT will abide by each RTA's track allocation procedures and timelines to access areas that require adherence to track allocation procedures.

Inspections Without Notice Procedure and Timeline:

- 2) The TxDOT Lead Inspector will notify the:
  - a. Chief Safety Officer James (Jim) Kenny, jkenny@mata.org, (858) 204-8577 (mobile)
  - b. President Victor (Vic) Cervantes, vcervantes@mata.org, (972) 567-1024 (mobile)
  - c. Director of Maintenance Doug Johnston, djohnston@mata.org (325) 721-1787 (mobile)
  - Vice President of Systems and Technology John Landrum, jlandrum@mata.org, (214) 727-2919 (mobile)
- 3) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 4) The TxDOT inspection team with gather at the agreed upon location until inspection begins.
  - a. The inspection team will gather at the MATA trolley barn at 3153 Oak Grove Ave., Dallas, TX 75204.
- 5) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and inspections must begin within 2 hours or less of TxDOT Inspections notification.

## **Inspection Notification Information**

The TxDOT Lead Inspector will provide notifications as described in the Notifications sections above. Notifications, both with and without notice, will contain the following information:

- inspection agenda,
- inspection purpose,
- risk prioritization,
- date and time of inspections,
- locations to be inspected,
- data needed for inspection,
- requested escorts, and
- RTA staff requested to attend.

## Access procedures, including all areas, and required escorts:

The TxDOT SSO staff and SSO Support Contractors have full access through key, key card, or code to MATA's property, including infrastructure, equipment, records, facilities, data, and personnel. However, TxDOT will not attempt to access MATA property, including hazardous or security sensitive areas, without an escort.

Hazardous areas may include right-of-way, yard, tunnels, bridges, and electrical infrastructure. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations/crime scenes associated from safety events.

When arriving at the RTA's property for inspections, both with and without notice, TxDOT inspectors will gather at an agreed upon locations such as a main entrance, reception area, or other area requested by the RTA, and await a MATA escort.

- 1) The TxDOT inspectors will gather in a safe location at the time stated to in the notification and await the arrival of MATA escorts. TxDOT inspectors will gather at the MATA trolley barn at 3153 Oak Grove Ave., Dallas, TX 75204.
- 2) The TxDOT Lead Inspector will facilitate team introductions between the TxDOT and McKinney Avenue Transit Authority escorts and team

- 3) The RTA CSO or delegated staff will ensure required escort(s) and track allocation is provided by the start time of the inspection.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and inspection must begin within 3 hours or less of TxDOT Inspections notification.

If track allocation is need then TxDOT will follow MATA's track allocation. The process, pertinent details, and times are ss as follows:

- Normal track allocation:
- Emergency track allocation:
- Foul time:

In instances when track allocation or required escorts cannot accommodate an unannounced inspection TxDOT may consider rescheduling the inspection at a mutually agreeable time. In emergency or exigent circumstances TxDOT may invoke authorities necessary to cease operation (emergency order under TAC 7.95), gain emergency track allocation or foul time, and conduct inspections on TxDOT's schedule

## **Verification of SSO Inspector Certifications and Trainings:**

The following procedures apply to TxDOT inspectors' pre-inspection briefing, confirmation of adherence to all TxDOT and MATA safety protocol and requirements.

- 1) The TxDOT Lead Inspector will conduct an inspection briefing with the MATA escort to review and discuss the following inspection details:
- 2) The TxDOT team lead will provide the agenda and verbally inform the RTA escort of the TxDOT personnel present, inspection purpose, locations to inspect, and schedule.
- 3) The TxDOT Lead Inspector will ask inspection team member to demonstrate to the MATA escort the required personal protective gear, which may include:
  - a. name badges,
  - b. RWP cards,
  - c. steel-toe or composite-toe boots,
  - d. appropriate clothing for inspection to be completed,
  - e. RTA approved safety vests
  - f. protective eyewear,
  - g. hearing protection,
  - h. gloves, and
  - i. hardhats/bumps CAPs.
- 4) The TxDOT Lead Inspector will request a safety briefing from the MATA escort to inform or discuss with TxDOT and RTA personnel any information necessary for a safe inspection, including any known hazards or safety concerns, and personal electronic device policies.
- 5) The inspection will begin only when the TxDOT Lead Inspector and the MATA escort have confirmed each step of the inspection briefing, training and PPE verification, and safety briefing.

## Category 2(b): MATA Inspection Practices SOP

TxDOT will schedule four inspections with notice at McKinney Avenue Transit Authority each calendar year. At its discretion, and as guided by MATA's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the sections above.

## **Inspection Reports Procedure:**

TxDOT and the MATA will implement the following Inspection Report procedure.

- 1) TxDOT will email the CSO, President, Director of Maintenance, and VP of Systems and Technology a Microsoft Word version of the Inspection Report no later than 30 calendar days after completion of the inspection.
- 2) The RTA will have 10 calendar days to review and respond via email to the TxDOT SSO PM and Contractor Project Manager with any correction, clarification, or revision requests.
- 3) TxDOT will factor in the RTA's response and the TxDOT will send the final Inspection Report via email not later than 10 calendar days after the RTA's draft Inspection Report response.
- 4) TxDOT will also upload the Inspection Report into the RTA RBI Module within the SSO Tracker system.

The Inspection Report provided to the RTA which will include the following sections:

- Date and time of inspection,
- TxDOT personnel present, including Inspection Team Lead, and RTA personnel present,
- Location and functional area inspected,
- Description of issues or deficiencies noted, including immediate safety concerns,
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required or recommendations.

#### **Immediate Safety Concerns:**

Each member of the TxDOT Inspection team has the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present. Ensuring the safety of all personnel present may include delaying, pausing, or cancelling the inspection, not entering inspection areas, or departing the inspection areas until the safety concern is resolved.

When a safety concern is observed the individual will notify the TxDOT Lead Inspector, who will then notify all TxDOT and personnel present. Depending on the circumstances, the inspector may need to notify:

- Mata Chief Safety Officer, or
- law enforcement personnel

The TxDOT Lead Inspector will work together with RTA staff to ensure personnel are in a safe location and to reassess the safety of the inspection team. If the inspection cannot safely continue, then TxDOT or the RTA may immediately cancel the inspection. Cancelled inspections for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete or may re-scheduled at a future date.

If the inspection can safely continue, then the TxDOT inspection team will document and photograph the safety concern observed and immediately discuss the issue with the TxDOT and RTA present. At the conclusion of the inspection, TxDOT will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard. The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

## **Ensuring the Safety of Inspection Personnel:**

- 1) TxDOT or MATA inspection team members have the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. Examples of safety concerns may include, but not limited to:
  - a. Security concerns such as criminal activity, suspicious person and/or package, or unsafe location,
  - b. Inclement weather or threat of inclement weather,
  - c. Personnel conduct including disregard for safety procedures or suspected fatigue or impairment,
  - d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including but not limited to:
    - i. Rail defects, track related damage, or obstructions.
    - ii. Overhead contact damage, malfunction, or other observed safety concern
    - iii. Signal related damage or malfunction,
    - iv. Vehicle damage or component malfunction
    - v. Facility safety concerns such as fire, electrical, or other life/safety concerns
  - e. Any other concern judged by inspection personnel as an immediate safety concern.
- 2) TxDOT or MATA personnel observing a safety concern must immediately report the safety concern to the TxDOT Lead Inspector and MATA escort.
- 3) The TxDOT Lead Inspector will immediately notify all personnel present, including TxDOT and MATA personnel.
- 4) The TxDOT Lead Inspector and MATA personnel will immediately assess the safety concern to determine if inspection personnel must stop inspection activities and move to a different location to ensure safety.
- 5) The TxDOT Lead Inspector will ensure all personnel are in a safe location.
- 6) The inspection shall not continue until the safety concern has been resolved.
- 7) The TxDOT Lead Inspector and escort will determine if additional individuals require notification.
- 8) The TxDOT Lead Inspector will contact MATA contacts as described below:
  - a. Dallas Police Department:
    - i. Emergency: 911
  - b. Chief Safety Officer: (858) 204-8577
- 9) If the safety concern cannot be resolved, then the TxDOT Lead Inspector or MATA personnel may cancel the inspection and depart the property.
- 10) If the safety concern can be resolved, then the Inspection will resume as soon as the safety issue is resolved.
- 11) The TxDOT Lead Inspector will inform all personnel, including TxDOT and MATA, that the issue is resolved, and the inspection will resume.

12) Inspection may resume upon resolution of safety concern.

# **Communicating Safety Concerns to MATA**

- The TxDOT Lead Inspector will verbally communicate the immediate safety concern upon discovery as described above, during the inspection conclusion, via email, and as part of the inspection report.
- 2) The TxDOT Lead Inspector will also explain any safety concerns discovered as part of a verbal debrief after the inspection is complete.
- 3) Within 24 hours of inspection conclusion, the TxDOT Inspection Lead will send via email, to the Streetcar Safety Manager and Chief Streetcar Officer, a summary of the safety concern observed, including details of what the safety concern, explanation of why it is a safety concern, photographs, or other documentation pertinent to the concern.
- TxDOT will also include the immediate safety concern within the inspection report.
- 5) TxDOT will coordinate with the CSO and safety staff to ensure the safety concern is managed in accordance with safety risk management requirements within the Program Standard and PTASP. Such actions could include documentation of a hazard, corrective action, including an emergency corrective action, and further investigation from MATA personnel including safety staff or the safety committee.

# Inspections of Equipment, Infrastructure, & Practices Specific to Each RTA

The following procedure will define the McKinney Avenue Transit Authority equipment, infrastructure, and practices present (broad) and the inspection frequencies and practices (specific) that TxDOT will consider when determining inspection areas.

TxDOT may conduct inspections of any infrastructure, equipment, locations, records, personnel, and data of the RTA's rail system. Any property or personnel (employee or contractor) performing work related to the rail system could be the subject of a TxDOT SSO inspection.

The McKinney Avenue Transit Authority rail system is comprised of the following areas:

- 1) Revenue rail vehicles fleet includes eight historic streetcars.
- 2) Track inspection and maintenance consists of 4.6 miles of mainline track structures, including embedded and direct fixation track.
- 3) Traction Power System consists of two functional subsystems: Traction power substations and overhead contact system.
- 4) Signals consist of City of Dallas civil traffic signals and bar signals tied into the City of Dallas civil traffic signals.
- 5) Facilities include a maintenance/operations/administration facility and an administration/storage facility.
- 6) Public Transportation Agency Safety Plan and associated plans, documents, policies, and procedures.

#### **Event Verification**

TxDOT and MATAs coordinate throughout the accident investigation process as described in Section 7: Accident Investigation of the TxDOT SSO Program Standard. The following section summarizes how TxDOT conducts Event Verification to RBI related investigation and safety risk identification processes.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and thoroughness of RTA completed investigations. As part of accident oversight, TxDOT reviews the RTA's findings of causation and determines if corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes accidents and incidents individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal characteristics. These metrics aid in understanding probable and contributing causes, and guide identification of safety risk.

TxDOT also requires MATA to provide information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair need to return damaged items to service. TxDOT verifies repairs and return to service through review of documentation which may include workorders, repair summaries, or photographs. TxDOT may also verify repairs and return to as part of inspection activities.

# **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assesses each RTA to determine the functional areas and associated infrastructure, equipment, facilities, and procedures of each system. TxDOT then divides the functional areas into a two-year cycle divided into calendar quarters.

In addition to ongoing monitoring throughout the two-year period, TxDOT conducts monthly conference calls to discuss safety events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitor efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination related to risk profile.

To establish the ongoing monitoring inspection schedule, TxDOT uses the following process.:

- 1) TxDOT and the SSO Support Contractors will develop a two-year calendar prior to implementation of the RBI program.
- 2) The two-year calendar will be divided into quarters, and each quarter will be assigned a functional area of the RTA.
  - a. MATA's functional areas include:
    - i. Track
    - ii. Traction Power Systems

- iii. Vehicles
- iv. Facilities
- v. Training
- vi. PTASP compliance, including plans, documents, policies, and procedures.
- 3) During each quarter, TxDOT will perform an announced inspection to observe and inspect the functional area selected for review. The inspection will consist of the following activities:
  - a. Review of past and current data
  - b. Discussions with RTA staff
  - c. Observations of task performance
  - d. Inspection of infrastructure, equipment, vehicles, or data.
  - e. Verification of accident, incident, corrective action, or mitigation implementation.
- 4) Inspection activities are documented with an inspection report within 30 days of monitoring activities.

#### **Defects and Corrective or Remedial Actions**

TxDOT will monitor MATA defects, corrective and remedial action detection, tracking, and resolution as part of the RBI process. TxDOT requires RTAs to provide share data on the most severe defects discovered and the efforts leading to defect resolution. TxDOT will track defects by number and severity to ensure each RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also require documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

# **CAP and Safety Risk Mitigation Verification**

TxDOT coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from:

- investigations,
- risk-based inspections,
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures, or
- FTA or SSO direction.

Hazards identified for mitigation reported to TxDOT will be evaluated to determine needs for CAP creation. The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT close a CAP once identified actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, an attached documentation, uploaded pictures verifying completion, or onsite review verifying completion.

TxDOT also requires coordination on safety risk mitigations as specified in the Program Standard, section 8.6 Monitoring of RTA Hazard. To summarize, TxDOT requires RTAs to submit quarterly logs that summarize safety risk management information including:

- Date issue discovered.
- Summary or description of safety risk, including location.
- Assessment including probability and severity.
- Responsible RTA department or employee tasked with resolving the issue.
- Status of hazard or risk resolution, including mitigations or corrective actions implemented.

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative issue such as policy, procedure, and documentation improvements are monitored and verified primarily through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure are verified through a combination of documentation reviews and onsite inspections. Mitigations and corrective actions involving implementation operations, maintenance, or safety practices are monitored through observation-based inspections referenced with the Ongoing Monitoring section above.

# Category 3(a): MATA Data Procedures

TxDOT recognizes the differences in size and complexity between light rail and streetcar systems. As described in Category 5, TxDOT uses NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity. Rail agency characteristics such as vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between streetcar and light rail systems.

Light rail systems operate more vehicles per day, more hours per week, and over greater distances at higher speeds. As a streetcar system, McKinney Avenue Transit Authority operates less vehicles per day, less hours per week, and over shorter distances at slower speeds.

MATA will submit data used to identify hazards and analyze, assess, and mitigate safety risk that encompasses a full spectrum of RTA activities. TxDOT and MATA will share data according to the procedures below.

# Data Submission Method, Schedule, Quantity, and Acceptable Formats:

- 1) McKinney Avenue Transit Authority shall submit RBI data within the SSO Tracker system. The data will be submitted within the RBI module, in the appropriate data section (Safety, Maintenance, Inspection, or Additional Safety), and within the appropriate calendar quarter.
- 2) McKinney Avenue Transit Authority will submit data as follows:
  - a. Safety Data:
    - i. Safety Data used to identify hazards and analyze, assess, and mitigate safety risk.
      - 1. Monthly: 30 calendar days after the end of the month.

# b. Maintenance and Inspection Data:

- i. Maintenance and Inspection Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Quarter 1: Jan, Feb, and Mar. Data due on April 30<sup>th</sup>.
  - 2. Quarter 2: Apr, May, and Jun. Data due on July 30<sup>th</sup>.
  - 3. Quarter 3: Jul, Aug, and Sept. Data due on Oct 30th.
  - 4. Quarter 4: Oct, Nov, and Dec. Data due on Jan 30<sup>th</sup>.
- 3) Data shall be submitted in the following acceptable formats:
  - a. Microsoft Excel
  - b. .CSV files
  - c. Microsoft Word
  - d. Tableau
  - e. Other formats agreed upon such as PDFs, handwritten records, etc.

# **Safety Data**

Each month MATA will submit safety data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. Safety data sets may include accidents, incidents, hazards, corrective action plans, safety risk mitigations, and records of near misses. Through routine SSO activities TxDOT has access to RTA accident data, SSO reportable hazards, internal hazard tracking, corrective action plans, safety risk mitigations, and near miss reporting.

MATA will submit Safety data each month for the requested segments using the procedure below.

- The Streetcar Safety Manager will submit safety data sets in the RBI Module, Safety Data section in SSO Tracker no later than 30 calendar days after the end of the month, unless a different interval is noted.
- 2) Safety Data sets, including summary reports, submitted by McKinney Avenue Transit Authority will include:
  - a. Event Log (including incidents)
  - b. Delay Log
- 3) Safety Data sets TxDOT possesses and will use include:
  - a. Accidents,
  - b. SSO reportable hazards,
  - c. RTA internal hazard logs,
  - d. Correct action plans,
  - e. Safety risk mitigations,
  - f. NTD data
  - g. SSO Triennials Audit Reports
  - h. Internal Safety Review Reports

# **Maintenance and Inspection Data**

Each quarter McKinney Avenue Transit Authority will submit maintenance and inspection data sets used to identify hazards and analyze, assess, and mitigate safety risk, including summary data reports, as part of TxDOT's RBI data requirements according to the procedure below.

- 1) Chief Safety Officer or Designee will submit data sets in the SSO Tracker system no later than 30 calendar days after the end of quarter.
- 2) Maintenance and Inspection data sets, including summary data, used to identify hazards and analyze, assess, and mitigate safety risk may include:
  - b. Safety data as described in the previous section.
- 3) Maintenance and Inspection Data TxDOT possesses and will use as RBI data:
  - d. SSO Inspection Reports completed quarterly
  - e. SSO Triennials Audit Reports
  - f. Internal Safety Review Reports

# **Key MATA Contact Information and Addresses**

Name	Job Title	Office Phone	Mobile	Email
James (Jim) Kenny	Chief Safety Officer	(214) 855-0006	(858) 204-8577	jkenny@mata.o rg
Victor (Vic) Cervantes	President	(214) 855-0006	(972) 567-1024	vcervantes@ma ta.org
John Landrum	Vice President of Systems and Technology	(214) 855-0006	(214) 727-2919 (mobile	jlandrum@mata .org
Doug Johnston	Director of Maintenance	(214) 855-0006	(325) 721-1787	djohnston@mat a.org
Dallas Police	Non-emergency:	(214) 744-4444		
Dallas Police	Emergency:	911		

# **Key Addresses**

MATA Admin Offices and Trolley Barn: 3153 Oak Grove Ave., Dallas, TX 75204.

Grade Crossings: Meet MATA personnel at Trolley Barn, 3153 Oak Grove Ave., Dallas, TX 75204, and then deploy to grade crossings

Trolley Stops: Meet MATA personnel at Trolley Barn, 3153 Oak Grove Ave., Dallas, TX 75204, and then deploy to trolley stops.

# **Galveston Island Trolley**

The TxDOT SSO and Galveston Risk-based Inspection Procedures were developed through coordination and consultation between TxDOT and Galveston Island Trolley staff. Coordination and consultation included onsite meetings, conference calls, email correspondence, and document reviews conducted between TxDOT and Galveston staff. The following procedures will be reviewed and if necessary, updated annually using a collaborative process defined within the Program Standard and PTASP.

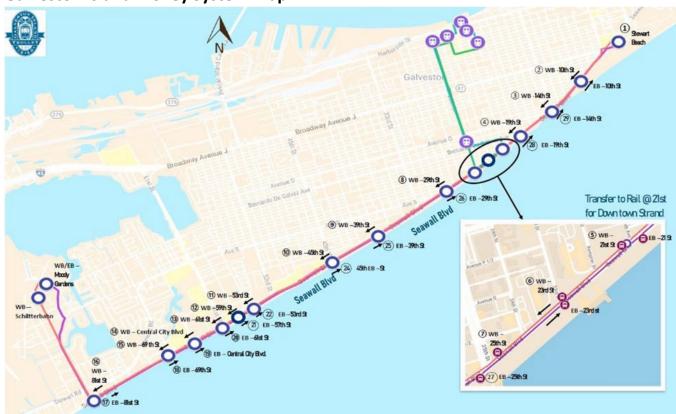
# **Galveston Island Trolley System Overview**

The Galveston Island Transit (GIT) trolley system operates primarily North-South between the Gulf of Mexico and Galveston Bay with two primary routes: a downtown loop and a cross island connection along Seawall Boulevard, totaling 6.8 miles of service. The system features three vintage-inspired diesel rail cars.

# **Galveston Island Trolley Service Summary**

Line	Days Operated	Hours Operated	Headways	
Trolley Service	Thursday	10am to 5pm	20 minutes	
	Friday to Sunday	10am to 7pm	30 minutes	

# **Galveston Island Trolley System Map**



# Category 2(a): GIT Property Access and Inspection Procedures

The following procedures apply to TxDOT's access to Galveston Island Trolley (GIT) infrastructure, equipment, records, personnel, and data.

# **Scheduling Inspections:**

TxDOT will schedule a minimum of four inspections with notice per year with the Galveston Island Trolley. Inspections are scheduled as part of a two-year cycle with one inspection with a notice occurring each calendar quarter.

At its discretion, and as guided by the GIT's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the RTA section below.

# **Scheduling Inspections With Notice**

Inspections with notice will occur with 1 calendar day or more notice. Although TxDOT may schedule inspections with notice with 1 calendar day or more notice, TxDOT prefers to provide additional notice to allow the RTA time to prepare for the inspection, which may require additional time to accommodate data requests and securing track allocation, if necessary.

Inspections with Notice (Announced) Procedure and Timeline:

- 1) The TxDOT Lead Inspector will notify the following individuals by email 1 day or more before intended inspection. (Contact information provided with Key Contact section)
  - a. James Oliver, General Manager joliver@galvestontx.gov; (409) 797-3914 (office); (409) 739- 6463 (cell)
  - b. Jessica Hawkinson, Assistant General Manager-jhawkinson@galvestontx.gov; (409) 797-3903 (office); (409) 739-3987 (cell)
  - c. Kenneth Kirkland, Chief Safety Officer kkirkland@galvestontx.gov; (409) 797-3904 (office) (409) 739-6159 (cell)
- 2) The TxDOT Lead Inspector may also call GIT staff to plan inspection activities and discuss required data or track allocation.
- 3) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 4) The TxDOT inspection team with gather at the agreed upon location at the date and time of the inspection.
- 5) Inspections with notice will begin at the agreed upon time.

# **Scheduling Inspections Without Notice**

Inspections without notice will occur **with no notice**. TxDOT will notify the RTA's CSO and other designated personnel of the intent to conduct an unannounced inspection. TxDOT will abide by each RTA's track allocation procedures and timelines to access areas that require adherence to track allocation procedures.

Inspections Without Notice Procedure and Timeline:

1) TxDOT Lead Inspector will notify the:

- a. James Oliver, General Manager joliver@galvestontx.gov; (409) 797-3914 (office); (409) 739- 6463 (cell)
- b. Jessica Hawkinson, Assistant General Manager- jhawkinson@galvestontx.gov; (409) 797-3903 (office); (409) 739-3987 (cell)
- c. Kenneth Kirkland, Chief Safety Officer kkirkland@galvestontx.gov; (409) 797-3904 (office) (409) 739-6159 (cell)
- 2) The RTA CSO or delegated staff will ensure required escort(s), and data or track allocation is provided by the start time of the inspection.
- 3) The TxDOT inspection team with gather at the agreed upon location until inspection begins.
- 4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and the inspection must begin within 2 hours or less of TxDOT Inspections notification.

# **Inspection Notification Information**

The TxDOT Lead Inspector will provide notifications as described in the Notifications sections above. Notifications, both with and without notice, will contain the following information:

- inspection agenda,
- inspection purpose,
- risk prioritization,
- date and time of inspections,
- locations to be inspected,
- data needed for inspection,
- requested escorts, and
- RTA staff requested to attend.

# Access procedures, including all areas, and required escorts:

TxDOT SSO staff and SSO Support Contractors have full access through key, key card, or code to GIT's property, including infrastructure, equipment, facilities, records, data, and personnel. However, TxDOT will not attempt to access GIT property, including hazardous or security sensitive areas, without an escort.

Hazardous areas may include right-of-way, yard, tunnels, bridges, and electrical infrastructure. Security sensitive areas may include train control or operation centers, police facilities, emergency operations centers, or criminal investigations/crime scenes associated from safety events.

When arriving at RTA's property for inspections, both with and without notice, TxDOT inspectors will gather at an agreed upon locations such as a main entrance, reception area, or other area requested by the RTA, and await a GIT escort.

- 1) The TxDOT inspectors will gather in a safe location at the time stated to in the notification and await the arrival of GIT escorts. TxDOT inspectors will gather at the:
  - a. GIT trolley barn at 214 28<sup>th</sup> St., Galveston, TX 77550
  - b. Admin Office: 3115 Market St., Galveston, TX 77550
- 2) The TxDOT Lead Inspector will facilitate team introductions between the TxDOT and Galveston Island Trolley escorts and team
- 3) The RTA CSO or delegated staff will ensure required escort(s) and track allocation is provided by the start time of the inspection.

4) The RTA must begin implementing RBI Procedures within 15 minutes of TxDOT notification, and inspection must begin within 3 hours or less of TxDOT Inspections notification.

If track allocation is need then TxDOT will follow GIT's track allocation. The process, pertinent details, and times are ss as follows:

- Normal track allocation:
- Emergency track allocation:
- Foul time:

In instances when track allocation or required escorts cannot accommodate an unannounced inspection TxDOT may consider rescheduling the inspection at a mutually agreeable time. In emergency or exigent circumstances TxDOT may invoke authorities necessary to cease operation (emergency order under TAC 7.95), gain emergency track allocation or foul time, and conduct inspections on TxDOT's schedule

# **Verification of SSO Inspector Certifications and Trainings**

The following procedures apply TxDOT inspectors' pre-inspection briefing, confirmation of adherence to all TxDOT and GIT safety protocol and requirements.

- 1) The TxDOT Lead Inspector will conduct an inspection briefing with the GIT escort to review and discuss the following inspection details:
- 2) The TxDOT team lead will provide the agenda and verbally inform the RTA escort of the TxDOT personnel present, inspection purpose, locations to inspect, and schedule.
- 3) The TxDOT Lead Inspector will ask inspection team member to demonstrate to the GIT escort the required personal protective gear, which may include:
  - a. name badges,
  - b. RWP cards,
  - c. steel-toe or composite-toe boots,
  - d. appropriate clothing for inspection to be completed,
  - e. RTA approved safety vests
  - f. protective eyewear,
  - g. hearing protection,
  - h. gloves, and
  - i. hardhats/bumps CAPs.
- 4) The TxDOT Lead Inspector will request a safety briefing from the GIT escort to inform or discuss with TxDOT and RTA personnel any information necessary for a safe inspection, including any known hazards or safety concerns, and personal electronic device policies.
- 5) The inspection will begin only when the TxDOT Lead Inspector and the GIT escort have confirmed each step of the inspection briefing, training and PPE verification, and safety briefing.

# Category 2(b): GIT Inspection Practices SOP

TxDOT will schedule four inspections with notice at Galveston Island Trolley each calendar year. At its discretion, and as guided by GIT's safety performance and TxDOT's risk prioritization process, TxDOT may conduct additional announced and unannounced inspections. Inspection scheduling will occur as described in the Notifications to the sections above.

# **Inspection Reports Procedure**

TxDOT and the GIT will implement the following Inspection Report procedure.

- 1) TxDOT will email the GIT's General Manager and CSO a Microsoft Word version of the Inspection Report no later than 30 calendar days after completion of the inspection.
- The RTA will have 10 calendar days to review and respond via email to the TxDOT SSO PM and Contractor Project Manager with any correction, clarification, or revision requests.
- 3) TxDOT will factor in the RTA's response and the TxDOT will send the final Inspection Report via email not later than 10 calendar days after the RTA's draft Inspection Report response.
- 4) TxDOT will also upload the Inspection Report into the RTA RBI Module within the SSO Tracker system.

The Inspection Report provided to the RTA which will include the following sections:

- Date and time of inspection,
- TxDOT personnel present, including Inspection Team Lead, and RTA personnel present,
- Location and functional area inspected,
- Description of issues or deficiencies noted, including immediate safety concerns,
- Photographs, documentation, measurements, or diagrams, if necessary, and
- Corrective actions required or recommendations.

# **Immediate Safety Concerns**

Each member of the TxDOT Inspection team has the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. If an immediate safety concern is identified by the TxDOT inspectors, their priority will be to ensure the safety of all personnel present. Ensuring the safety of all personnel present may include delaying, pausing, or cancelling the inspection, not entering inspection areas, or departing the inspection areas until the safety concern is resolved.

When a safety concern is observed the individual will notify the TxDOT Lead Inspector, who will then notify all TxDOT and personnel present. Depending on the circumstances, the inspector may need to notify:

- GIT Chief Safety Officer,
- law enforcement personnel, or
- General Manager

The TxDOT Lead Inspector will work together with RTA staff to ensure personnel are in a safe location and to reassess the safety of the inspection team. If the inspection cannot safely continue, then TxDOT or the RTA may immediately cancel the inspection. Cancelled inspections for safety concerns will be documented within the inspection report. TxDOT may consider the inspection complete or may re-scheduled at a future date.

If the inspection can safely continue, then the TxDOT inspection team will document and photograph the safety concern observed and immediately discuss the issue with the TxDOT and RTA present. At the conclusion of the inspection, TxDOT will email the CSO and other designated staff within 24 hours to explain the immediate safety concern observed. TxDOT requires immediate safety concerns to be managed in compliance with the PTASP prescribed safety risk management processes and the TxDOT Program Standard. The specific procedures regarding immediate safety concerns are provided in the individual RTA procedures section of this document.

# **Ensuring the Safety of Inspection Personnel:**

- 1) TxDOT or GIT inspection team members have the right to raise a safety concern at any point in the planning, preparation for, or conducting of an inspection. Examples of safety concerns may include:
  - a. Security concerns such as criminal activity, suspicious person and/or package, or unsafe location,
  - b. Inclement weather or threat of inclement weather,
  - c. Personnel conduct including disregard for safety procedures or suspected fatigue or impairment,
  - d. Equipment or infrastructure related concerns such as damaged or missing safety features, unsafe or improper operation, or safety related conditions including but not limited to:
    - i. Rail defects, track related damage, or obstructions.
    - ii. Overhead contact damage, malfunction, or other observed safety concern
    - iii. Signal related damage or malfunction,
    - iv. Vehicle damage or component malfunction
    - v. Facility safety concerns such as fire, electrical, or other life/safety concerns
  - e. Any other concern judged by inspection personnel as an immediate safety concern.
- 2) TxDOT or GIT personnel observing a safety concern must immediately report the safety concern to the TxDOT Lead Inspector and GIT escort.
- 3) The TxDOT Lead Inspector will immediately notify all personnel present, including TxDOT and GIT personnel.
- 4) The TxDOT Lead Inspector and GIT personnel will immediately assess the safety concern to determine if inspection personnel must stop inspection activities and move to a different location to ensure safety.
- 5) The TxDOT Lead Inspector will ensure all personnel are in a safe location.
- 6) The inspection shall not continue until the safety concern has been resolved.
- 7) The TxDOT Lead Inspector and escort will determine if additional individuals require notification.
- 8) The TxDOT Lead Inspector will contact GIT contacts as described below:
  - a. Emergency: 911
  - b. Dispatch: (409) 797-3900
  - c. GIT Personnel

James Oliver, General Manager - joliver@galvestontx.gov; (409) 797-3914 (office); (409) 739-6463 (cell)

Jessica Hawkinson, Assistant General Manager-jhawkinson@galvestontx.gov; (409) 797-3903 (office); (409) 739-3987 (cell)

Kenneth Kirkland, Chief Safety Officer - kkirkland@galvestontx.gov; (409) 797-3904 (office) (409) 739-6159 (cell)

- 9) If the safety concern cannot be resolved, then the TxDOT Lead Inspector or GIT personnel may cancel the inspection and depart the property.
- 10) If the safety concern can be resolved, then the Inspection will resume as soon as the safety issue is resolved.
- 11) The TxDOT Lead Inspector will inform all personnel, including TxDOT and GIT, that the issue is resolved, and the inspection will resume.
- 12) Inspection may resume upon resolution of safety concern.

# **Communicating Safety Concerns to GIT**

- 1) The TxDOT Lead Inspector will verbally communicate the immediate safety concern upon discovery as described above, during the inspection conclusion, via email, and as part of the inspection report.
- 2) The TxDOT Lead Inspector will also explain any safety concerns discovered as part of a verbal debrief after the inspection is complete.
- 3) Within 24 hours of inspection conclusion, the TxDOT Inspection Lead will send via email, to the Chief Safety Officer and General Manager, a summary of the safety concern observed, including details of what the safety concern, explanation of why it is a safety concern, photographs, or other documentation pertinent to the concern.
- 4) TxDOT will also include the immediate safety concern within the inspection report.
- 5) TxDOT will coordinate with the CSO to ensure the safety concern is managed in accordance with safety risk management requirements within the Program Standard and PTASP. Such actions could include documentation of a hazard, corrective action, including an emergency corrective action, and further investigation from GIT personnel including safety staff or the safety committee.

# Inspections of Equipment, Infrastructure, & Practices Specific to Each RTA

The following procedure will define the Galveston Island Trolley equipment, infrastructure, and practices present (broad) and the inspection frequencies and practices (specific) that TxDOT will consider when determining inspection areas.

TxDOT may conduct inspections of any infrastructure, equipment, locations, records, personnel, and data of the RTA's rail system. Any property or personnel (employee or contractor) performing work related to the rail system could be the subject of a TxDOT SSO inspection.

The Galveston Island Trolley rail system is comprised of the following areas:

- 1) Revenue rail vehicles fleet includes eight historic streetcars.
- 2) Track inspection and maintenance consists of 4.6 miles of mainline track structures, including embedded and direct fixation track.
- 3) Traction Power System consists of two functional subsystems: Traction power substations and overhead contact system.
- 4) Signals consist of City of Galveston civil traffic signals.
- 5) Facilities include a maintenance/operations/administration facility and an administration/storage facility.

6) Public Transportation Agency Safety Plan and associated plans, documents, policies, and procedures.

#### **Event Verification**

TxDOT and GITs coordinate throughout the accident investigation process as described in Section 7: Accident Investigation of the TxDOT SSO Program Standard. The following section summarizes how TxDOT conducts Event Verification to RBI related investigation and safety risk identification processes.

TXDOT has delegated investigative responsibility to each RTA but reserves the right to conduct independent investigations at its discretion. TxDOT has ultimate responsibility for the sufficiency and thoroughness of RTA completed investigations. As part of accident oversight, TxDOT reviews the RTA's findings of causation and determines if corrective action plan is required because of the accident.

As part of the investigation review process, TxDOT carefully analyzes accident details to understand if similar characteristics or dynamics exist within the RTA's system. For example, TxDOT analyzes accidents and incidents individually and aggregated using the metrics described within Category 4: Inspection Prioritization to determine commonalities in organizational, environmental, technical, or geospatial/temporal characteristics. These metrics aid in understanding probable and contributing causes, and guide identification of safety risk.

TxDOT also requires GIT to provide information on damaged infrastructure, equipment, or property and subsequent corrective maintenance or repair need to return damaged items to service. TxDOT verifies repairs and return to service through review of documentation which may include workorders, repair summaries, or photographs. TxDOT may also verify repairs and return to as part of inspection activities.

## **Ongoing Monitoring**

TxDOT will conduct a minimum of four inspections per year at each rail agency. Inspections will be planned based on a two-year cycle so that all areas of the rail agency are inspected during the two-year period. To establish the two-year cycle, TxDOT first assesses each RTA to determine the functional areas and associated infrastructure, equipment, facilities, and procedures of each system. TxDOT then divides the functional areas into a two-year cycle divided into calendar quarters.

In addition to ongoing monitoring throughout the two-year period, TxDOT conducts monthly conference calls to discuss safety events, safety risk management, corrective actions, audits, reviews, management of change, and inspection related items.

TxDOT factors in analysis resulting from safety, inspection, and maintenance data to guide ongoing monitor efforts. Ongoing monitoring could indicate the need for additional inspections with notice or without notice, or additional RTA coordination related to risk profile.

To establish the ongoing monitoring inspection schedule, TxDOT uses the following process.:

1) TxDOT and the SSO Support Contractors will develop a two-year calendar prior to implementation of the RBI program.

- 2) The two-year calendar will be divided into quarters, and each quarter will be assigned a functional area of the RTA.
  - a. GIT's functional areas include:
    - i. Track
    - ii. Vehicles (diesel powered)
    - iii. Facilities
    - iv. Training
    - v. PTASP compliance, including plans, documents, policies, and procedures.
- 3) During each quarter, TxDOT will perform an announced inspection to observe and inspect the functional area selected for review. The inspection will consist of the following activities:
  - a. Review of past and current data
  - b. Discussions with RTA staff
  - c. Observations of task performance
  - d. Inspection of infrastructure, equipment, vehicles, or data.
  - e. Verification of accident, incident, corrective action, or mitigation implementation.
- 4) Inspection activities are documented with an inspection report within 30 days of inspection.

#### **Defects and Corrective or Remedial Actions**

TxDOT will monitor GIT defects, corrective and remedial action detection, tracking, and resolution as part of the RBI process. TxDOT requires RTAs to provide share data on the most severe defects discovered and the efforts leading to defect resolution. TxDOT will track defects by number and severity to ensure each RTA manages these items in compliance with the safety risk management processes defined within the PTASP and TxDOT Program Standard.

RTAs will detect, document, and resolve defects, corrective, or remedial actions through established inspection, trouble-shooting, and corrective maintenance practices. Defects, corrective, or remedial actions may also require documentation on hazard logs, resolution through safety committees' coordination, and submitting monthly hazard logs to TxDOT for review. Safety concerns that meet or exceed TxDOT's reporting threshold require corrective actions that must be reported to TxDOT using the SSO Tracker information system and managed in accordance with TxDOT's Program Standard.

## **CAP and Safety Risk Mitigation Verification**

TxDOT coordinates with each RTA on corrective action plan and safety risk mitigation development, implementation, and verification as described below.

As specified in the Program Standard, Section 9.1 Corrective Action Plans, RTAs shall develop and implement corrective action plans (CAPs) resulting from:

- investigations,
- risk-based inspections,
- hazard management process,
- audit findings,
- internal safety review findings,
- engineering or construction of RTA projects,
- non-compliance with RTA policies or procedures, or

FTA or SSO direction.

Hazards identified for mitigation reported to TxDOT will be evaluated to determine needs for CAP creation. The SSO Tracker system will be used for RTAs to submit CAPs for TxDOT review and approval, to request CAP closure, and to keep TxDOT informed on the status of open CAPs. The SSO Tracker system allows TxDOT to monitor and track the status of open CAPs in real time.

The RTA must request TxDOT to close a CAP once identified actions have been implemented. TxDOT will verify that the CAP has been implemented in compliance with the approved plan by reviewing evidence provided either as a description of actions taken, an attached documentation, uploaded pictures verifying completion, or onsite review verifying completion.

TxDOT also requires coordination on safety risk mitigations as specified in the Program Standard, section 8.6 Monitoring of RTA Hazard. To summarize, TxDOT requires RTAs to submit quarterly logs that summarize safety risk management information including:

- Date issue discovered
- Summary or description of safety risk, including location.
- Assessment including probability and severity
- Responsible RTA department or employee tasked with resolving the issue
- Status of hazard or risk resolution, including mitigations or corrective actions implemented.

TxDOT monitors and verifies the successful implementation of safety risk mitigations and corrective actions using various methods. Issues of an administrative issue such as policy, procedure, and documentation improvements are monitored and verified primarily through documentation reviews. Safety risk mitigations and corrective actions involving equipment, facilities, and infrastructure are verified through a combination of documentation reviews and onsite inspections. Mitigations and corrective actions involving implementation operations, maintenance, or safety practices are monitored through observation-based inspections referenced with the Ongoing Monitoring section above.

# Category 3(a): GIT Data Procedures

TxDOT recognizes the differences in size and complexity between light rail and streetcar systems. As described in Category 5, TxDOT uses NTD Profile Data to ensure the RBI Program is commensurate with RTA number, size, and complexity. Rail agency characteristics such as vehicles in service, directional route miles, and operational characteristics including revenue hours and revenue miles demonstrate a clear difference between streetcar and light rail systems.

Light rail systems operate more vehicles per day, more hours per week, and over greater distances at higher speeds. As a streetcar system, Galveston Island Trolley operates less vehicles per day, less hours per week, and over shorter distances at slower speeds.

GIT will submit data used to identify hazards and analyze, assess, and mitigate safety risk that encompasses a full spectrum of RTA activities. TxDOT and GIT will share data according to the procedures below.

# Data Submission Method, Schedule, Quantity, and Acceptable Formats:

- 1) Galveston Island Trolley shall submit RBI data within the SSO Tracker system. The data will be submitted within the RBI module, in the appropriate data section (Safety, Maintenance, Inspection, or Additional Safety), and within the appropriate calendar quarter.
- 2) Galveston Island Trolley will submit data as follows:
  - a. Safety Data:
    - i. Safety Data used to identify hazards and analyze, assess, and mitigate safety risk.
      - 1. Monthly: 30 calendar days after the end of the month.

# b. Maintenance and Inspection Data:

- i. Maintenance and Inspection Data used to identify hazards and analyze, assess, and mitigate safety risk.
  - 1. Quarter 1: Jan, Feb, and Mar. Data due on April 30<sup>th</sup>.
  - 2. Quarter 2: Apr, May, and Jun. Data due on July 30<sup>th</sup>.
  - 3. Quarter 3: Jul, Aug, and Sept. Data due on Oct 30<sup>th</sup>.
  - 4. Quarter 4: Oct, Nov, and Dec. Data due on Jan 30<sup>th</sup>.
- 3) Data shall be submitted in the following acceptable formats:
  - a. Microsoft Excel
  - b. .CSV files
  - c. Microsoft Word
  - d. Tableau
  - e. Other formats agreed upon such as PDFs, handwritten records, etc.

# **Safety Data**

Each month GIT will submit safety data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements. Safety data sets utilized by GIT in the identification and assessment of safety risk may include accidents, incidents, hazards, corrective action plans, safety risk mitigations, and records of near misses. Through routine SSO activities TxDOT has access to RTA accident data, SSO reportable hazards, internal hazard tracking, corrective action plans, safety risk mitigations, and near miss reporting.

GIT will submit Safety data each month for the requested segments using the procedure below.

- 1) The CSO will submit safety data sets in the RBI Module, Safety Data section in SSO Tracker no later than 30 days after the end of the month, unless a different interval is noted.
- 2) Safety Data sets, including summary reports, submitted by Galveston Island Trolley will include:
  - a. Trolley schedule file
- 3) Safety Data sets TxDOT possesses and will use include:
  - a. Accidents,
  - b. SSO reportable hazards,
  - c. RTA internal hazard logs,
  - d. Correct action plans,
  - e. Safety risk mitigations,
  - f. NTD data
  - g. SSO Triennials Audit Reports
  - h. Internal Safety Review Reports

# **Maintenance and Inspection Data**

Each quarter Galveston Island Trolley will submit maintenance and inspection data sets, including summary data reports, used to identify hazards and analyze, assess, and mitigate safety risk as part of TxDOT's RBI data requirements according to the procedure below.

- 1) Chief Safety Officer or Designee will submit data sets in the SSO Tracker system no later than 30 days after the end of quarter.
- 2) Maintenance and Inspection data sets, including summary data used to identify hazards and analyze, assess, and mitigate safety risk may include:
  - a. Inspection and maintenance records and report forms
  - b. Work orders
  - c. Records of defects
- 3) Maintenance and Inspection Data TxDOT possesses and will use as RBI data:
  - a. SSO Inspection Reports completed quarterly
  - b. SSO Triennials Audit Reports
  - c. Internal Safety Review Reports

# **Key Galveston Contact Information and Addresses**

Name	Job Title	Office Phone	Mobile	Email
James Oliver	General Manager	(409) 797- 3914	(409) 739- 6463	joliver@galvestontx.gov
Jessica Hawkinson	Assistant General Manager	(409) 797- 3903	(409) 739- 3987	jhawkinson@galvestontx.gov
Kenneth Kirkland	Chief Safety Officer	(409) 797- 3904	(409) 739- 6159	kkirkland@galvestontx.gov
Dispatch	Dispatcher	(409) 797- 3900		
Galvest on Police	Non-emergency Number			

# **Key Addresses**

Admin Office: 3115 Market St., Galveston, TX 77550

Maintenance Facility (Trolley Barn): 214 28th St., Galveston, TX 77550

Grade Crossings: Meet Galveston personnel at the Maintenance Facility, 3115 Market St., Galveston, TX 77550, and then deploy to grade crossings

Trolley Stops: Meet Galveston personnel at Maintenance Facility, 3115 Market St., Galveston, TX 77550, and then deploy to trolley stops.

# **Appendices**

# **Appendix 1: Definitions**

#### Accident

An 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.

#### Audit

A review or analysis of records and related materials, including, but not limited to, those related to financial accounts.

# Corrective Action Plan (CAP)

A plan developed by a Rail Transit Agency (RTA) that describes the actions the RTA 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 an RTA to develop and carry out a Corrective Action Plan.

#### CFR

Code of Federal Regulations

#### Consultation

The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters.

#### Day

A Day means a calendar day.

#### Event

An Accident, Incident, or Occurrence.

#### **FRA**

Federal Railroad Administration

#### FTA

**Federal Transit Administration** 

#### Hazard

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

# Immediate Safety Concern

Any real or potential condition, practice, or violation that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a rail fixed guideway public transportation system; or damage to the environment.

#### Incident

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

#### Inspection

A physical observation of equipment, facilities, rolling stock, operations, or records for the purpose of gathering or analyzing facts or information.

#### Inspection Data

Data that includes, but is not limited to, inspection records and report forms, records of failures and defects with severity, records of speed restrictions, including the reason for applying, incident and safety risk mitigation verification, adherence to inspection schedules, including reports/documentation of inspections not performed, and capital project schedules and progress.

## Investigation

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

#### NTD

National Transit Database

#### Maintenance Data

Data that includes, but is not limited to, major maintenance activity schedule and progress, adherence to maintenance schedules, including reports/documentation of deferred maintenance, records of failures and defects with severity if applicable, and records of revenue vehicles out of service, including causal information.

# Public Transportation Agency Safety Plan (PTASP)

The comprehensive Agency Safety Plan for a transit agency, including a Rail Transit Agency, that is required by 49 U.S.C. § 5329(d) and based on a Safety Management System.

Publicly Accessible Areas include stations, platforms, public sidewalks adjacent to right of way, and pedestrian crosswalks at stations.

# Public Transportation Safety Certification Training Program (PTSCTP)

The certification training program for Federal and State employees or other designated personnel who conduct safety audits and examinations of public transportation systems. Employees of public transportation agencies directly responsible for safety oversight are also required to complete the PTSCTP.

# Rail Fixed Guideway Public Transportation System (RFGPTS)

Any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. RFGPTSs include, but are not limited to, rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.

# Rail Transit Agency (RTA)

Any entity that provides services on a rail fixed guideway public transportation system.

#### Risk

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

#### **Risk-Based Inspection**

An inspection conducted as part of a risk-based inspection program.

# Risk-Based Inspection Data Management System

A physical or digital system that follows administrative policies and procedures that identify data storage, organizational, and management processes for risk-based inspections.

# Risk-Based Inspection Program

A risk-based inspection program uses qualitative and quantitative data analysis to inform ongoing inspection activities. Risk-based inspection programs are designed to prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk.

# **Risk Mitigation**

A method or methods to eliminate or reduce the effects of hazards.

# Safety Assurance

The 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 Event:

- Accidents as defined by FTA.
- Incidents as defined by FTA.
- Occurrences as defined by FTA, including near-misses, red signal overrun, improper door operation, wrong route, and unexpected service shut down for a safety reason.

# Safety Management System (SMS)

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

#### Safety Program Data

Data that includes, but is not limited to, event data, hazard data, safety risk ratings, mitigation data, CAP data, near miss data, and ongoing monitoring data.

# Safety Risk Assessment

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)

A process within a rail transit agency's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

# State Safety Oversight Agency (SSOA)

An agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and the regulations set forth in 49 CFR Part 674.

#### State

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

## TTP

**Technical Training Plan** 

#### U.S.C.

**United States Code** 

#### Vehicle

Rolling stock used on a rail fixed guideway public transportation system, including, but not limited to, passenger and maintenance vehicles.

# **Appendix 2: RBI Inspection Report Template**



# Inspection Report

[Date of Inspection]
[Type of Inspection]
Texas Department of Transportation
State Safety Oversight Program

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Date and time of inspection	
Inspection purpose, type, functional area, and locations or items inspected	
TxDOT SSO and RTA personnel present	3
Issues or deficiencies observed, if applicable	3
Recommendations	3
Photographs, documentation, or diagrams, if available,	3
Corrective actions required which may include remedial actions	3

# **Appendix 3: Risk Prioritization Committee Charter**

# **TxDOT SSO Risk Prioritization Committee Charter**

# **Purpose**

TxDOT will convene Risk Prioritization Committees to review each rail agency's quantitative and qualitative data to prioritize TxDOT SSO RBI inspections.

# **Objectives**

The committee has three objectives:

- 1) Meet semi-annually, annually, or as needed to prioritize risk for each agency.
- 2) Prioritize RBI Inspections based on RTA data analysis and safety performance.
- 3) Document committee decisions.

# **Meeting Frequency:**

Committee will meet a minimum of twice a year for large Light Rail systems and once a year for smaller Streetcar systems.

**Light Rail Systems (Large)**Dallas Area Rapid Transit

**Houston Metro** 

Streetcar Systems (Small)

McKinney Avenue Transit Authority
Dallas Streetcar
El Paso Streetcar
Galveston Island Trolley

#### Representatives

The committee will have five voting representatives that will serve continuously.

- Two representatives from either Vital Assurance or Transportation Resource Associates.
  - Project Principal
  - Project Manager
- Three representatives from the TxDOT SSO Program.
  - Transit Safety Program Manager
  - o Transit Safety Program Manager
  - SSO Data Analyst

#### **Attendance and Alternates**

Each representative will attend scheduled committee meetings. Any representative unable to attend a meeting will inform the chair before the meeting and will appoint an alternate. An alternate attending a meeting on behalf of a regular representative will be a voting representative for that meeting.

# **Chair and Vice-Chair**

The committee will have two officers: Chair and Vice-chair

- Chair is the Transit Safety Program Manager
- Vice-chair is Transit Safety Program Manager.

#### **Chair Duties:**

• Schedule committee meetings,

- · Develop meeting agendas,
- Conduct the committee meeting, and
- Supervise the preparation of meeting summaries
- Document risk prioritization decisions and next steps.

# **Vice-Chair Duties:**

- In the absence of the chair, assume the duties of the chair;
- Prepare meeting materials with assistance of data analyst,
- Perform other duties as directed by the chair.

# **Voting quorum**

Five voting representatives constitute a quorum. A majority vote of representatives is required to approve committee decisions.

# **Meeting Documentation:**

Meetings will be summarized to include decisions and action items.