



COMMONWEALTH of VIRGINIA

Jennifer B. DeBruhl

DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

(804) 786-4440

Director

600 EAST MAIN STREET, SUITE 2102
RICHMOND, VA 23219-2416

FAX (804) 225-3752
Virginia Relay Center
800-828-1120 (TDD)

March 1, 2024

The Honorable Glenn Youngkin
Governor, Commonwealth of Virginia
1111 Broad Street
Richmond, VA 23219

Re: 2023 Annual Status of Safety Report and Rail Fixed Guideway State Safety Oversight Program Performance in the Commonwealth of Virginia

Dear Governor Youngkin,

49 U.S. Code § 5329(e)(4) and 49 CFR Part 674.13(a)(7) mandate that at least once a year, the State Safety Oversight Agency reports the status of the safety of each rail fixed guideway public transportation system to the Governor. As such, the Virginia Department of Rail and Public Transportation (DRPT) submits this annual status of safety report for Hampton Roads Transit's Tide light rail system for the period January 1, 2023, through December 31, 2023.

The attached report outlines the program's mission, describes its current activities, while detailing ongoing efforts to comply with the federal regulation on State Safety Oversight of Rail Fixed Guideway Systems.

Please do not hesitate to contact me or the DRPT Transit Rail Safety and Emergency Management Administrator, Andrew Ennis (andrew.ennis@drpt.virginia.gov) should you or your staff members have questions or wish to discuss the program.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jennifer B. DeBruhl".

Jennifer B. DeBruhl

Cc: W. Sheppard Miller, Secretary of Transportation
Andrew Ennis, DRPT

February 2024

2023 Annual Status of Safety Report

Rail Fixed Guideway State Safety Oversight Program

Table of Contents

Executive Summary	2
Program Background and Overview	4
State Safety Oversight Responsibilities.....	4
Key Program Activities	5
Staffing.....	5
Budget/Funding.....	5
2023 Program Highlights	6
FTA Actions	10
Federal and State Legislative Changes.....	10

Executive Summary

The Virginia Department of Rail and Public Transportation (DRPT) is the designated Rail State Safety Oversight Agency (SSOA) for the Commonwealth of Virginia. In this role, DRPT oversees the Hampton Roads Transit (HRT) Tide light rail system in Norfolk. The state safety oversight agency's mission is the continuous verification that HRT is carrying out its documented programs to ensure the safety of its passengers and employees.

The Transit Rail Safety and Emergency Management Administrator oversees DRPT's oversight program with support from contracted consultant staff who are experts in the fields of train signaling, civil engineering, and rail operations. The budget for the state safety oversight program is funded by Federal Transit Administration (FTA) dedicated formula grants that are matched with funds from the Commonwealth Mass Transit Fund.

In its oversight role, DRPT:

- Conducts audits and inspections (announced and unannounced) of the Tide system
- Reviews and adopts accident, incident, and hazard investigations
- Tracks and verifies HRT's progress in correcting safety and security gaps on its light rail system

2023 Program Highlights

Approved Documents

- HRT's Security and Emergency Preparedness Plan Version 8.1 on August 31, 2023
- HRT's PTASP, Version 4, approved on December 18, 2023

Triennial Audits

- March: HRT's Light Rail Vehicle (LRV), Systems and Track Maintenance
- October: HRT's Safety Department

Inspections

- February: Point of No Return Markers, Station Conditions, and Operations Rules Compliance
- May: Operations Control Center
- June: Station Conditions, Operations Rules Compliance, and Norfolk Tide Facility (NTF) Shop
- July: LRV System Maintenances
- September: Corrective Action Plans (CAPs)
- December: NTF Shop and Station Conditions

Accident notification and investigations

In 2023, there were three accidents, one evacuation for life safety reasons, and one uncontrolled train movement. All of these events were reported properly to all stakeholders, and the DRPT SSO adopted the investigation reports.

Federal Regulatory Compliance

The Infrastructure Investment and Jobs Act (IIJA), required HRT to make several updates to their safety program, including establishing and implementing a joint labor-management safety committee vested with the responsibility to formally approve HRT's Public Transportation Agency Safety Plan (PTASP). Throughout 2023, DRPT SSO continued to monitor the meetings of HRT's joint labor-management safety committee, as well as HRT's de-escalation training initiative.

In 2023, DRPT SSO made considerable updates to its existing inspection program to comply with the requirements of Special Directive 22-49 which requires the development and implementation of a Risk-Based Inspection (RBI) program by October 2024. In July 2023, DRPT SSO and HRT held a joint workshop to collaborate on solutions to comply with Special Directive 22-49, with a focus on access to HRT facilities and infrastructure and collection of HRT data. DRPT will continue to work collaboratively with HRT as it finalizes the development of its RBI program and submits the program for certification in 2024. Further details on these activities can be found in "FTA Actions" section of the full report.

Program Background and Overview

In 1996, FTA issued the Rail Fixed Guideway Systems State Safety Oversight Rule, 49 Code of Federal Regulations (CFR) Part 659. Under this rule, each state with rail fixed guideway systems not subject to the regulatory authority of the Federal Railroad Administration was responsible for overseeing the safety and security program implementation of these systems. Pursuant to Subdivision 16 of § 33.2-285 of the Code of Virginia, the designated Rail State Safety Oversight Agency (SSOA) is the Department of Rail and Public Transportation (DRPT) in the Commonwealth of Virginia. DRPT oversees the Hampton Roads Transit (HRT) Tide light rail system in Norfolk, Virginia.

The FTA certified DRPT's State Safety Oversight (SSO) program under 49 CFR Part 674 on April 4, 2018. This regulation directs eligible states to significantly strengthen their authority to oversee and enforce safety requirements to prevent and mitigate accidents and incidents on rail fixed guideway systems subject to oversight. Additionally, it mandates eligible states to demonstrate legal and financial independence from these rail transit systems, as well as provide the necessary financial and human resources for overseeing the number, size, and complexity of rail transit systems within their jurisdictions. While the regulation does not mandate oversight of security practices at the rail transit system, DRPT maintains this authority over HRT security and emergency preparedness programs as authorized by the Code of Virginia. This report details State Safety Oversight activities at the HRT Tide light rail system¹ from January 1 through December 31, 2023.

State Safety Oversight Responsibilities

DRPT's SSO program activities are intended to ensure that the rail transit agency (RTA) places safety considerations over operational expediency in all decision making. An important distinction should be made in delineating the role of the SSOA versus the role of the RTA in maintaining and improving rail safety. The SSOA's role is that of the regulator ensuring that all the mechanisms in place at the RTA are sound and unconditionally applied. The state does not perform day-to-day functions at the RTA. Alternatively, the RTA's role is to perform all necessary programmatic, procedural, technical, engineering, and operational activities that it has formally adopted to maintain safety in rail operations.

DRPT's oversight mission is to continuously verify that the RTA is carrying out its documented programs to ensure the safety of its passengers and employees. DRPT's oversight efforts are fully transparent to HRT. All DRPT's actions, including those that denote various deficiencies at HRT, are communicated objectively with the goal of improving HRT's rail safety posture and without assigning fault. Although HRT's Safety and Security Departments are the custodians of HRT's safety and security programs, the entire organization, including its senior executives, middle managers, supervisors, and frontline personnel, is empowered and responsible for upholding its safety goals.

The entirety of this oversight effort is called the "Program." The activities of the DRPT oversight program are described in a document titled the Safety and Security Program Standard (SSPS). As mandated by federal regulation, the SSPS contains a description of DRPT's organizational

¹ An interstate compact was enacted on August 22, 2017, creating the Washington Metrorail Safety Commission (WMSC). Effective March 18, 2019, the WMSC is the designated State Safety Oversight Agency for WMATA Metrorail. To learn more about WMSC's oversight role, please visit <https://wmsc.gov/oversight/>.

structure and lines of authority that support the oversight program. It also lists DRPT's protocols for operating a federally compliant SSO program. The SSPS is a dynamic document that undergoes annual review and updates to reflect enhancements to the program. This document and its practices are subject to FTA review.

Key Program Activities

Throughout the year, the SSOA's key program activities include:

- Conduct regular work sessions with HRT rail safety, security, operations, and maintenance personnel
- Conduct audits, inspections, and special assessments of HRT's light rail operations
- Review and approve primary HRT rail safety, security, and emergency preparedness plans
- Conduct or adopt rail investigations for accidents, incidents, and hazards occurring on the HRT light rail system
- Track and verify HRT's progress in correcting safety and security gaps on its light rail system

Staffing

The Transit Rail Safety and Emergency Management Administrator (Administrator) oversees DRPT's SSO program and reports directly to the DRPT Director. The Administrator performs all programmatic decision making and supervisory tasks with the support of contracted consultants. The consultant staff include subject matter experts (SMEs) in the fields of train signaling, engineering, track and structures, rail vehicles, and rail operations. U.S. Code 5329 established a more comprehensive and standardized training and certification program for designated state and RTA personnel who conduct rail safety reviews and have direct safety oversight responsibility. This certification program places greater emphasis on SSO and RTA staff obtaining certifications and competencies specific to the rail system they work and oversee. The DRPT Administrator and consultant staff are compliant with the above-mentioned regulations.

Budget/Funding

The United States Department of Transportation and FTA provide dedicated annual formula grant funding to states with SSO responsibilities. This formula funding is based on the number of rail modes overseen by the state agency and the scale of the RTA's operation – such as track miles, passenger trips, and revenue miles. Grant funds from previous grants can carry forward and SSO's apply for new funds annually. These FTA formula grant funds can be utilized for program administration and activities including but not limited to SSO staff salaries, FTA-mandated training, consultant services, and equipment purchases. In 2023, the DRPT oversight program budget was \$1,373,619. This was comprised of FTA formula grant funds of \$1,098,895 (80%) and matched with \$274,724 (20%) from DRPT administrative funds. DRPT utilizes this funding for various eligible purposes that include:

- Staff salary
- Consultant support

- Routine state safety program activities
- Annual FTA certifications and accredited rail standards training courses
- Dedicated response vehicle
- Equipment needed to perform program activities

2023 Program Highlights

All the SSO program components command equal significance. These program components are designed to be symbiotic, with information and intelligence gathered in one program element informing another. For instance, information gathered in a triennial audit might inform an accident investigation. In the same manner, a finding of cause discovered during an accident investigation might spur closer scrutiny of a certain practice at the RTA, prompting frequent inspections by SSO staff.

Approval of Program Documents

Federal regulation mandates that the SSOA annually review and approve key documents associated with safety and security at the rail transit system. The Public Transportation Agency Safety Plan (PTASP) Final Rule, 49 CFR Part 673, requires certain operators of public transportation systems that receive federal funds to develop safety plans that include the processes and procedures to implement safety management systems and safety performance targets. 49 CFR Part 673 also requires an annual review and update of the PTASP. Accordingly, in 2023 DRPT reviewed and approved the following documents:

- HRT's Security and Emergency Preparedness Plan Version 8.1 on August 31, 2023
- HRT's PTASP, Version 4, formally approved on December 18, 2023

Triennial Audits

One of the mechanisms DRPT utilizes to assess the ongoing health of HRT's rail safety performance is the triennial audit process. Triennial audits gauge the level to which safety is integrated into rail operations, maintenance, training, human resources, procurement, engineering, quality assurance departments, and management structure. All of these separate departments, and the organization, support the safe operation of the rail system. The methodology associated with the triennial audits is the continuous and robust assessment of these departments and their documented efforts at ensuring safety of HRT's passengers and employees. Instead of a single audit of the entire program being conducted once every three years, DRPT conducts these audits on a continual three-year cycle. During these audits, if DRPT concludes that any aspects of HRT's documented programs related to rail safety are not being executed as officially described, DRPT will record these as findings.

Findings are classified as either Findings of Non-Compliance (FNCs) or Findings of Compliance with Recommendations (FCRs). FNCs generally relate to those areas where the RTA is not following federal or state requirements or its own established plans, policies, procedures, or where such documents are nonexistent. FCRs are deficiencies where the RTA has practices or plans that do not rise to the level of non-compliance with established policies, procedures, or industry standards. Further, they are a preemptive attempt at preventing a low hazard condition from progressing to a situation where it could result in a non-compliance/safety critical issue if unchecked. The RTA is required to address such findings through corrective action plans (CAPs).

These CAPs can take the form of recalibrating a program or procedure to better match their practical applications, reinstruction, or instituting new procedures or programs. DRPT reviews and approves all CAPs proposed by HRT and monitors these CAPs to ensure completion within established timeframes.

DRPT conducted two triennial audits of HRT in March and October 2023. Both triennial audits were conducted on-site. HRT submitted documents subject to audit early for review, and interviews with HRT personnel were pre-scheduled and conducted.

The March triennial audit assessed HRT's light rail vehicle, track and systems maintenance implementation of the PTASP, as well as compliance with relevant policies and procedures. This audit resulted in the following FNC and FCRs:

- FNC-1: LRV maintenance's electrical gloves were out of compliance with the Occupational Safety and Health Administration's (OSHA's) testing requirements.
- FCR-1: HRT's Track Authority Form is being filled out inconsistently and does not have fields for beginning and end times.
- FCR-2: HRT track maintenance used downward arrows to denote completion of several fields on the Bridge Inspection Form rather than marking the completion of each field individually.

The October triennial audit assessed the HRT Safety Department's implementation of the PTASP, as well as compliance with relevant policies and procedures. This audit resulted in the following FNC:

- FNC-1: HRT's Chief Safety Officer (CSO) has not obtained their Public Transportation Certification Training Program (PTSCTP) certificate within the three-year period since designation as required by 49 Code of Federal Regulation (CFR) Part 672.13 (c).

DRPT approved proposed CAPs for all the findings listed for both the March and October audits. One of the requirements for a CAP is the RTA must provide an estimated completion date that is both realistic and practical. The estimated completion date should be based on the severity and complexity of the finding the CAP is designed to address. Because of this, it is understood that some CAPs may have a shorter estimated completion period while others may have estimated completion plans that could span several months or years. CAPs with long-term estimated completion dates are acceptable with continued monitoring. A final completion date is assigned when a CAP is verified by the SSO program as ready for closure. HRT successfully closed all the CAPs to resolve the findings listed above.

Inspection Program

The DRPT inspection program is intended as a cooperative effort with HRT to assess the safety and security of operations and maintenance practices. Additionally, it is used to verify overall compliance with federal rules and standards as well as all relevant HRT rules, standards, and procedures on an ongoing basis. The program allows DRPT to:

- Evaluate topics of heightened risk based on recent information, trends, or incidents
- Identify potential problem areas requiring further investigation and solution development
- Assist HRT by providing independent evaluations of procedural and rules compliance

Inspections typically last one to two days and involve multiple topics and types of observations or reviews, some of them simultaneous. Inspection activities are based on both a regular rotation of subject matter areas as well as areas of heightened risk. Areas of heightened risk are determined through extensive data analysis. Inspection activities can include the following areas of focus:

- Rail Vehicles
- Vehicle Maintenance Facilities and Yards
- Track Access/Roadway Worker Protection
- Traction Power System
- Signal System
- Rail-Highway Grade Crossings
- Operations Control Center

Inspections may be announced or unannounced. For announced inspections, DRPT may provide notice to HRT up to 24 hours before the inspection occurs. If DRPT anticipates an inspection will require specific HRT personnel or preparation, DRPT will provide advance notice to assist with scheduling. For unannounced inspections, DRPT personnel will arrive on the property without advanced notice to HRT. Inspections are conducted from public areas as well as on the Tide right-of-way. Inspections taking place from public areas, such as onboard trains, in stations, or from the street, will not be announced to the HRT personnel performing the operations or maintenance being observed. For any inspections performed on the Tide operating right-of-way, DRPT will provide advanced notification to HRT to ensure coordination and compliance with all HRT right-of-way access and permitting requirements. DRPT oversight program representatives will abide by all HRT safety rules and regulations while on HRT property, including roadway worker protection requirements.

DRPT will publish an inspection report detailing inspection activities after its conclusion. For each inspection, the report will document any observations, violations, potential hazards, deficiencies, and areas for improvement. Unlike the triennial audits, HRT is not required to develop CAPs in response to items in the report unless it is specifically issued by DRPT in an inspection report. However, DRPT strongly encourages HRT to respond to the report and develop CAPs. Even if no deficiencies are identified during an inspection, HRT often proactively addresses inspection items by generating corrective actions or mitigations.

In 2023, DRPT conducted the following inspections:

- February: Point of No Return Markers, Station Conditions and Operations Rules Compliance
- May: Operations Control Center
- June: Station Conditions, Operations Rules Compliance and Norfolk Tide Facility (NTF) Shop
- July: LRV System Maintenances
- September: Corrective Action Plans (CAPs)
- December: NTF Shop and Station Conditions

Finding(s) issued by DRPT during the 2023 inspection cycle:

- FNC-1: The eyewash station in Sewells TPSS expired in June 2023.
- FNC-2: The calibration date of the clamping voltmeter (serial number 06980) for measuring the direct current (DC) (step 7.4.3.1) to the batteries was expired.

Even if no deficiencies are identified during an inspection, DRPT provides observations, comments, and suggestions to strengthen the HRT's safety program. HRT often proactively addresses these items by generating corrective actions or mitigations and responds to DRPT's inspection memos. Once DRPT SSO's RBI program is implemented, DRPT SSO will regularly analyze HRT's relevant safety and maintenance data to reveal areas of heightened risk. Areas of heightened risk will be prioritized for either announced or unannounced inspections by DRPT SSO. Memos detailing inspection findings and/or observations will continue to be issued to HRT following the completion of an inspection.

Safety Event Notification and Investigation

49 CFR part 674 requires rail transit agencies subject to oversight to notify the SSOA and the FTA of accidents that occur on the rail system. The FTA defines "accidents" as "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." Further, DRPT requires HRT provide additional notifications of safety events that do not meet the FTA definition for an accident. Additional safety events can include "incidents" and "occurrences" like multiple injuries, significant damage, rule violations or service delays. All event notifications are reported directly to the Administrator within the timeframes prescribed in the SSFS.

DRPT is required to investigate all accidents. To conduct these investigations, DRPT may authorize HRT to investigate on its behalf, or DRPT can conduct its own independent investigation. In the event the National Transportation Safety Board (NTSB), FTA, or other federal entity launches an investigation into an HRT light rail accident, DRPT will join the investigative process. DRPT is ultimately responsible for the sufficiency and thoroughness of all investigations, whether conducted by DRPT or HRT. DRPT reviews all investigation reports prepared by HRT for accuracy and adopts each report as its own official investigative report once all DRPT requirements have been met.

In 2023, there were two collisions involving light rail vehicles and POVs; one collision with a person; one uncontrolled train movement; one life safety evacuation; three fires; two signal violations at grade crossings; several rule violations by rail Tide operators; and several service disruptions. The investigations into these events concluded:

- The two LRV collisions with POVs were the fault of the POV drivers.
- The one LRV collision with a person was found to be non-preventable.
 - A trespasser was in the track area near Moseley Creek Bridge.
- The uncontrolled train movement was found to be preventable with a probable cause determined to be human factors/operating rule violation.
 - HRT generated one CAP from this event; the CAP was approved for implementation and closure by DRPT SSO in 2023.
- The life safety evacuation was found to be non-preventable with the probable cause determined to be imprudent/criminal action of patron.
- The three fires were found to be non-preventable.
 - Two were trashcan fires.
 - One was a fire behind a ticket vending machine.
- The two signal violations at grade crossings were found to be preventable.
 - HRT generated two CAPs from the signal violations; both CAPs were approved for implementation and closure by DRPT SSO in 2023.

Of these events, the uncontrolled train movement, life safety evacuation, and collision with a person each met the criteria for reporting accidents to the FTA. HRT properly reported these events to the FTA. All investigation reports were reviewed and adopted by the DRPT Administrator.

FTA Actions

The FTA issued Special Directive 22-49 to DRPT in October 2022, which requires the development and implementation of a Risk-Based Inspection (RBI) program by October 2024. DRPT already has a robust inspection program through which it performs routine announced and unannounced inspection program at HRT. In 2023, DRPT SSO made considerable updates to its existing inspection program to comply with the requirements of Special Directive 22-49.

Along with updating its inspection program, DRPT SSO also began updating its Technical Training Plan (TTP) and workload assessment to comply with the special directive requirements. Additionally, DRPT SSO worked closely with HRT throughout 2023. In July, DRPT SSO and HRT held a joint workshop to collaborate on solutions to the comply with Special Directive 22-49 categories 2 and 3, which focus on access to HRT facilities and infrastructure and collection of HRT data. DRPT will continue to work collaboratively with HRT as it finalizes the development of its RBI program and submits the program for certification by the FTA in 2024.

Following FTA certification, DRPT will implement its RBI program, which will include regularly analyzing data submitted by HRT; prioritizing the analyzed data to identify areas of heightened risk; and performing inspections of the identified areas.

Federal and State Legislative Changes

The FTA released several Advanced Notice of Proposed Rule Making (ANPRM) and Notice of Proposed Rule Makings (NPRM) affecting the SSO program as well as rail transit agencies. These include:

- Transit Worker Hours of Service and Fatigue Risk Management (ANPRM)
- 49 CFR Part 672: Public Transportation Safety Certification Training Program (PTSCTP)
- 49 CFR Part 673: Public Transportation Agency Safety Plans (PTASP)
- 49 CFR Part 674: State Safety Oversight

DRPT has provided comments on two (49 CFR 673 and 674) of the proposed rule changes listed above. Most of these rules will be finalized in 2024, per the Federal rule making process.