Washington State Department of Transportation

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SENT VIA EMAIL

June 13, 2024

Patrick Johnson
Director – Audit Division
Sound Transit

Re: Approval of the 2024 Link & Tacoma Link Light Rail Internal Safety Audit Final Report.

Mr. Johnson,

WSDOT has accepted the 2024 final audit report for the Link Light Rail Internal Safety Audit (Report # 2024-02) and Tacoma Link Light Rail Internal Safety Audit (Report # 2024-03).

Audit topics covered include:

1) 0.0 Introduction
   a) 0.1 ST Background
   b) 0.2 Scope and Purpose
   c) 0.3 Organizational Chart
   d) 0.4 System and Description
   e) 0.5 Expected Outcomes
2) 1.0 Safety Plan
   a.) 1.1 Regulatory Updates to the Agency Safety Plan
   b.) 1.2 Safety Performance Measures and Targets 673.11 (a)(3)
   c) 1.3 Conformance with FTA Guidelines 673.11 (a)(4)
   d) 1.4 Regulatory Oversight and Acknowledgement 673.15
   e.) 1.5 Review and Update of ASP 673.11(a)(5)
   f) 1.9 Certificate of Compliance 673.13
   g.) 1.10 Coordination with Planning Stakeholders 673.15
3) 2.0 Safety Management Policy
   a) 2.1 Safety Management Policy Communication 673.23©
   b) 2.2 Employee Reporting Program and Feedback 673.23(b)
   c) 2.4 Plan Implementation2.5 SMS Documentation and Records
   d) 2.5 SMS Documentation and Records 673.31
   e) 2.6 Access to SMS Documentation and Records 673.31
4) 4.0 Safety Assurance
   a) 4.2 Management of Change 673.27(c)(1)(2)
   b) 4.2.1 Configuration Management and System Modification
   c) 4.2.2 Safety and Security Management and Certification Process
   d) 4.5 Safety Culture Assessment

There were zero findings within 2024-02.

There were zero findings within 2024-03.

There was one observation within 2024-02:
- ASP approval signatures and dates should be included on the signature page.

There was one observation within 2024-03:
- ASP approval signatures and dates should be included on the signature page.

Sound Transit has remained on schedule to audit all Agency Safety plan elements and modal safety programs for Central Link Light Rail & Tacoma Link Light Rail within the current three-year audit cycle (2022-2024), as required by the Washington State Rail Safety Oversight Program Standard.

Please contact me with any questions.

Sincerely,

Molly Hughes
Public Transportation Safety Administrator (SSOA)
HughesM@wsdot.wa.gov
Mobile: 360-742-8458

Link Light Rail Internal Safety Audit

Report #: 2024-02

Executive Summary

Internal Safety Audits are required to be completed annually by federal and state regulations for Link light rail service, and WSDOT's State Safety Oversight (SSO) program standards. These safety audits periodically review agency safety programs to assure that processes are being performed as intended and required under the Agency Safety Plan (ASP).

Audit Objective

Our audit focused on reviewing safety controls, processes, and procedures to ensure the safe operations, maintenance, and safety oversight of Link light rail service by Sound Transit, as service owner, and King County Metro (KCM) as the contracted operator.

Audit criteria included reviewing processes and programs captured by the Agency Safety Plan (ASP) under guidance from the Federal Transit Administration (FTA's) Safety Management Systems (SMS) framework under 49 CFR Part 673.

Our audit excluded areas such as: safety risk management activities, notifications, and investigations of safety events under safety assurance, bipartisan infrastructure safety activities, along with training and communication under safety promotion. These areas will be reviewed as part of the upcoming 2024 WSDOT SSO Triennial audit of Sound Transit.

The audit period for spanned from **April 2023** to **March 2024**.

Conclusion

From our audit, we found zero **(0) findings** of non-compliance and have **one (1) observation;** listed below and discussed in more detail beginning on page 5 of this report.

Summary of results:

Ref #	Title of Issue	Risk Rating
O.1	ASP approval signatures and dates should be included on the signature page.	n/a

Background

Federal and state requirements for Link light rail service

In 2018, the Federal Transit Administration (FTA) published 49 CFR Part 673, that requires rail properties to develop and use transit-specific safety management systems (SMS) framework through public transportation agency safety plans (ASP) for the oversight of safety processes.

The 673 rule also requires agencies to maintain documentation in their agency safety plans, including those related to the implementation of SMS, and documentation resulting from SMS processes and activities. This rule also requires an annual review of the ASP for updates, corrections, and modifications.

Washington State Department of Transportation's (WSDOT) State Safety Oversight Program (SSO) oversees and monitors compliance with relevant regulations and requirements for the Link light rail service. The SSO is also the agency that provides ongoing oversight and performs required triennial audits of Sound Transit's light rail service. The SSO does not have oversight authority over King County Metro.

Link light rail service

Sound Transit, as the owner of the Link light rail service, provides financial, performance management and safety oversight. It contracts with King County Metro for the management of operations and maintenance, along with safety processes under an intergovernmental agreement (IGA).

For Link, there are two (2) Agency Safety Plans that govern light rail safety. Each must be reviewed and approved according to local requirements. Sound Transit's ASP must be approved by WSDOT; however, King County Metro's Agency Safety Plan only needs to be reviewed and approved by Sound Transit prior to approval and adoption.

Audit topic selection

Sound Transit's Audit Division used a risk-based approach to identify safety management system audit topics to audit. Our assessment included activities and sub-activities specified in Sound Transit's agency safety plan, and then rated each for the following risk factors:

- Results from previous audits.
- Time since last audited.
- Changes in processes within 3 years.
- Safety data trends and analysis.
- Federal and state regulation updates.
- Best practice & industry guidance.

Methods of evaluation and verification

This audit report is the first audit from our 3-year audit cycle (2024 – 2026), covering portions of elements contained in the Agency Safety Plan, as required by the WSDOT Rail Safety Oversight Program Standard.

To assess compliance during the audit, the auditors completed the following steps:

- Interviewed Safety staff to verify their understanding of safety processes.
- Compared agency safety program-related procedures and plans' contents against state and federal requirements.
- Sampled and reviewed records for each audit area to assess compliance.

Audit Standards

We conducted our internal safety audit according to Audit Division policies & procedures, which are governed by our Audit Charter; and meets several sets of applicable federal, state, and local auditing standards.

These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe that the evidence we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Also, the Audit Division is committed to following safety oversight standards set forth by the Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), and all other relevant auditing requirements or standards.

Audit results

The following table summarizes of our findings and observations using the FTA's SMS framework. This final report reflects the current state of safety practices and processes at Sound Transit and King County Metro during the audit period.

SMS Framework	Number of findings	Number of observations
Safety Policy	0	1
Safety Risk Management	0	0
Safety Assurance	0	0
Safety Promotion	0	0
Totals	0	1

Audit Phases

Each audit starts by examining the current processes in place relative to (1) laws or regulatory requirements, (2) agency policies and procedures and (3) industry best practices.

During the audit "planning" phase, we assess the engagement-specific conditions and risk, informing and confirming the audits' objectives and scope. Also, relevant controls to mitigate these risks are also reviewed and identified.

The audit "field work" phase then examines the design of the identified controls to determine if the intent meets the regulations, policies, etc. If the controls are designed to adequately mitigate the risk (control environment), we move on to assess the degree to which the controls

are mitigating the risk (control activities). Any areas identified where the control environment or activities do not adequately mitigate the identified risk are identified as an exception.

Exceptions are then defined as either findings or observations.

- **Findings** are the results of the evaluation and verification of evidence against audit criteria showing non-compliance with a policy, procedure, manual, standard, or industry best-practice.

- **Observations** are issue that may be compliant with requirements, however, the auditor has determined that the issue poses the potential risks of becoming a finding in the future if recommended changes are not put in place to prevent occurrence.

Audit Topics Reviewed

a. Safety Plan

Federal and state regulations require transit agencies to develop agency safety plans that describe their SMS. Implementation processes and plans must include the following:

- Safety Management Policy – Senior management's formal commitment to safety. Also defines the methods, processes, and organization structure to meet safety goals.

- Safety Risk Management – Determines the need for and adequacy of new or revised risk controls based on the assessment of acceptable risks.

- Safety Assurance – Activities and functions that ensures the effectiveness of implemented safety risk mitigations.

- Safety Promotion – Includes the combination of training and communication of safety information to support a positive safety culture throughout the agency.

i. Agency Safety Plan (ASP):

The Sound Transit Agency Safety Plan (ASP) was:
- Effective October 2023.
- Found to be compliant with 49 CFR 673.
- Reviewed and approved annually by the Employee Safety Committee (ESC), The Board of Directors and the Chief Executive Officer (CEO) who is by FTA terms, the Accountable Executive of SMS.
- Approved by the ESC as documented by a signed memo addressed to the Chief Safety Officer (CSO) detailing the results of the vote.
- Approved by the ST Rider Experience and Operations (REO) Committee prior to Sound Transit Board for approval.

- o A signed Board Motion is maintained as record of approval on the ST HUB.
- CEO signs all revisions on the Policy Statement embedded in the ASP.

The King County Metro (KCM) Transit Agency Safety Plan (ASP) was:
- Effective December 2023.
- Found to be compliant with 49 CFR 673.
- Reviewed, approved, and signed by the ASP Review Committee prior to the formal approval and signature of the Chief Safety Officer, Accountable Executive (General Manager) and Board of Directors.
- Reviewed and accepted annually by Sound Transit Manager of Security & Safety Management System.
  - o A Memo was retained as a record in the ST TSS SharePoint, dated May 2023.

ii. Evidence requested and reviewed:

To evaluate the ST and KCM ASP, the audit team:

- Interviewed staff who are responsible for direction and oversight of the ASP:

  - o The *Acting* Chief Safety Officer, Deputy Director of Safety Business Processes & Projects, Manager of Security & Safety Management System, and the Senior Specialist of Safety Management System.

- Reviewed:

  - o ST Agency Safety Plan (dated October 2023), modal and employee safety committee documents and safety data metrics. Additionally, the auditors reviewed the safety committee and board approval documents and procedures to obtain the ASP approval and signatures.

  - o King County Metro (KCM) ASP (dated December 2023), Memorandum of Record of ST review and approval (dated May 22, 2023), and the Annual Partner Review Process Work Instruction.

iii. Section (a) findings:

We found no instances of non-compliance with the Agency Safety Plan.

iv. Section (b) observations:

O.1 - While Sound Transit meets the requirement for ASP approvals, we observed there is no list of signatures and/or dates of approval from the safety committee, ST Board or the CEO within the ASP document. Transportation Safety & Security (TSS) Division' Work Instruction, WI-002 Signature Distribution Process states "all revisions (of the ASP) must be signed by the Accountable Executive on the Policy Statement, embedded in the ASP".

b. Safety Management Policy

Transit agencies must establish its organizational accountabilities and responsibilities and have a written statement of safety management policy that includes the agency's safety objectives. The policy statement must be communicated throughout the agency and signed by the accountable executive. Additionally, the agency must establish a process that allows employees to report safety conditions to senior management. Areas subject to review under this section include:

- Safety Management Policy Communication – The safety management policy must be communicated throughout the agency's organization.

- Employee Reporting Program and Feedback – A transit agency must establish and implement a process that allows employees to report safety conditions to senior management, protections for employees who report safety conditions to senior management, and a description of employee behaviors that may result in disciplinary action.

- SMS Implementation – The ASP must document the processes and activities related to the Safety Management System (SMS) implementation. Additionally, each ASP will incorporate SMS principles and methods tailored to the size, complexity, and scope of the public transportation system and the environment in which it operates.

i.   Evidence requested and reviewed:

To evaluate safety policy and safety management system implementation, and the employee reporting program, the audit team:

- Interviewed staff who are responsible for direction and oversight of SMS implementation including:
    - The *Acting* Chief Safety Officer, Deputy Director of Safety Business Processes & Projects, Manager of Security & Safety Management System, and the Senior Specialist of Safety Management System.

- Reviewed:
    - Policy Statement, SMS Implementation Smart Sheets, Agency Safety Plan (dated October 2023), modal and employee safety committee documents and safety data metrics. Additionally, the Employee Safety Reporting Program procedures and database were reviewed along with monthly meeting minutes from the Employee Safety Committee (ESC).

ii. **Section (a) findings**:

We found no instances of non-compliance with Safety Management Policy.

iii. **Section (b) observations:**

We found no opportunities for improvement with Safety Management Policy.

b. **Safety Risk Management**

Sound Transit must develop and implement a Safety Risk Management (SRM) process for the transit system to ensure hazardous conditions are identified, assessed, and mitigated risk to an acceptable level. Areas subject to review under this section include:

- Safety hazard identification – Identification of methods or processes to identify hazards and consequences before they escalate into safety events. This includes how the agency will collect, identify, track, and trend hazards.

- Safety risk assessment – Determination of the safety risk level associated with the hazard and determine the likelihood and severity rating using a risk scoring method to determine prioritization of effort to mitigate the hazard.

- Safety risk mitigation – Documentation of the steps taken to manage risk to the lowest acceptable levels and document any preventive actions.

i. **Results Exception:** Due to the upcoming WSDOT SSO Triennial audit of Sound Transit, all Safety Risk Management activities were scoped out of our audit and will be reviewed as part of the 2025 Safety Audit program.

c. **Safety Assurance**

Transit agencies must establish safety assurance consistent to FTA guidelines to evaluate the SMS processes in place to conduct safety reviews, safety investigations, evaluations, and internal safety audits. Additionally, safety assurance processes evaluate change management, corrective action plans (CAPs), and inspections to monitor compliance with established procedures for operations and maintenance.

Safety assurance processes also ensure that the agency implements appropriate and effective mitigations and monitors safety performance. Areas subject to review under this section include:

- Safety performance monitoring and measurement – The ongoing collection of safety data metrics to ensure that key safety goals are being achieved.

- <u>Management of Change</u> – A systematic approach to preventing and mitigating risk to the agency, including the degradation of safety, health, or environment due to changes made to how the agency constructs, operates, manages, or repairs systems vital to the safe operation of the transit system. This also includes proposed and completed policy, manual, and procedural documentation changes.

- <u>Continuous improvement</u> – Processes that outline how Sound Transit and KCM Transit reviews their safety performance to identify deficiencies. Consists of formal activities designed to evaluate the effectiveness of SMS, including internal safety audits and management reviews.

i. **Evidence requested and reviewed:**

To evaluate safety assurance processes, the audit team:

- Interviewed staff who are responsible for direction and oversight of SMS implementation including:
    - Managers of Transportation Safety & Security for the North & South Corridors, Manager of Security & Safety Management System, and the Program Manager of Safety & Security Data.

- Reviewed:
    - ST Change Review Board (CRB) Charter and the Agency Configuration Control Policy (No. 37). Hazard Management Manual, and Safety Risk Assessment (SRA) Workflow and Data tracking sheets. Additionally, we sampled documentation from six (6) CRB projects from the SRA Workflow Data tracking list, shown below:

    - Open CRB Projects:
        - 2024.505 - PIMS - Substantial completion of all LINK Work (Milestone 5) - University St; Pioneer Square; Capitol Hill; and UW Stations (supplemental to 2022.407)
        - 2024.504 - Electrical Upgrades at Angle Lake, SeaTac, Tukwila for Brocade Replacement (Supplemental to 2021.368)
        - 2024.475 - Northgate Parking Garage Relocate Electrical Service Entrance out of the Water Table

    - Closed CRB Projects:
        - 2021.342 - Beacon Hill Provisions for Temporary Generator
        - 2022.407 - PIMS – Substantial Completion of all Link Work (Milestone 5)
        - 2023.451 - Northgate Station Maintenance Ladder Modifications

    - Sound Transit Safety and Security Management Plan (SSMP), Safety and Security Certification Plan (SSCP). We sampled 5 months of Safety and Security

Certification Review Committee (SSCRS) meeting minutes for Federal Way Link Extension and East Link Extension meetings (2023-2024).

- o Safety Performance Metrics (Power Bi), monthly department meeting presentations, monthly SSO reports, and annual Safety Survey presentation (2023).

    ii. **Section (a) findings**:

We found no instances of non-compliance with Safety Assurance.

    iii. **Section (b) observations:**

We found no opportunities for improvement with Safety Assurance.

d.   Safety Promotion

The safety promotion element of SMS requires that Sound Transit describe the responsibilities of staff to the safety program and encourages others to follow established safety practices. Areas subject to review under this section include:

- Competencies & Training – Initial and re-occurring core safety trainings that employees and contractors are required to complete. Additional workplace safety training may be assigned based on their role and potential exposures from work-related tasks.

- Safety Communication –

    - o Structured methods that communicate any safety event to agency leadership and required affected staff.
    - o Communicating safety performance information throughout the agency and externally; as well as critical or regulatory safety information that employees need to know.
    - o Safety communication can be observed through management responses to employee safety reporting processes and documented actions taken.

    i. **Results Exception:** Due to the upcoming WSDOT SSO Triennial audit of Sound Transit, all Safety Risk Management activities were scoped out of our audit and will be reviewed as part of the 2025 Safety Audit program.

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Appendices

Appendix A: List of interviewed staff

The audit team interviewed the following individuals during our safety audit of Link light rail. Staff will be listed by position titles only:

- Sound Transit
  - *Acting* Chief Safety Officer
  - Deputy Director, Safety Business Processes & Projects
  - Manager, Security & Safety Management System
  - Senior Specialist, Safety Management System
  - Manager, Transportation Safety & Security (LLR/TLR South Region)
  - Manager, Transportation Safety & Security (LLR North Region)
  - Manager, Health & Safety
  - Program Manager, Safety & Security Data

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Appendix B: List of reviewed documents and records

The audit team reviewed the following documents and records during the safety audit.

- **Sound Transit documentation and records**
  - 2023 Agency Safety Plan
  - WSDOT Memo: ASP Review and Approval, 2023
  - 2023 WSDOT Rail Safety Oversight Program Standard
  - TSS SOP-01: Agency Safety Plan review & approval process
  - New Employee Onboarding (Safety Policy)
  - Board Motion No. M2023-06, ASP approval
  - Board Motion No. M2023-85, ASP revision approval
  - Resolution No. R2018-41, Board Committee Responsibilities
  - Work Instruction, WI-002-ASP-Signature Distribution Process, 01/2024
  - Work Instruction, WI-003-ASP-Board Approval Process, 01/2024
  - Work Instruction, WI-004-ASP-ESC Approval Process, 01/2024
  - Memo, ESC approval of ASP, 2023
  - Memo, ASP Partner Review, 2023
  - Work Instruction, WI-001 ASP Annual Partner Review Process, 2023
  - Revised Code of Washington Ch. 81.112, Regional Transportation Authorities
  - WAC 468-550-040, Requirements for agency safety plans
  - Safety Security Hazard Oversight Panel (SHOP):
    - Charter
    - Samples of "Record of Decisions"
  - Safety & Security Certification Review Subcommittees (SSCRS):
    - East Link Extension Meeting Documents (Nov 2023 - Mar 2024)
    - Lynnwood Link Extension Meeting Documents (Nov 2023 - Mar 2024)
  - Joint Rail Safety & Security Committee (JRSSC):
    - Charter
    - Meeting Minutes (Nov 2023- Mar 2024)
  - Employee Safety Committee (ESC):
    - Charter
    - Meeting Minutes (Nov 2023- Mar 2024)
  - Safety Department Meeting Presentations: (Nov 2023 - Mar 2024)
  - TSS Managers & Directors Meeting Presentations (Apr, Jun, Sep 2023)
  - TSS Mode Workbook: (TSS Tasks, Project Gantt Chart, Safety Certification Projects Tracker)
  - Safety Risk Assessment (SRA) Workflow & Data View (SharePoint List)
    - Sampled "Open" CRBs (2024.505, 2024.504, 2023.475)
    - Sampled "Closed" CRBs (2021.342, 2022.407, 2023.451)
  - TSS CAP Log Monthly Reporting (Event, Hazard, Accident Logs):
    - 2023: October, November, December
    - 2024: January, February, March

- o Lynnwood Link Extension SSIMS Data Dashboard (excel sheet)
- o PSO Configuration Review Board SME Contact List (SharePoint List)
- o CRB Safety Risk Assessment Data View: (SharePoint List)
- o Rail Activation Committee Presentations: (Nov 2023 - Mar 2024)
- o SOP-TSS-12 Non-System Expansion Project Safety & Security Risk Mgt. 2022
- o SOP-TSS-14 Operational Hazard Analysis, 2022
- o SOP-TSS-15 Safety & Security Assessment, 2022
- o Hazard Management Manual, 2022
- o Agency Configuration Control Policy No. 37, 2011
- o Agency Safety & Security Management Plan (SSMP), 2022
- o Agency Safety & Security Certification Plan (SSCP), 2023
- o ST Configuration Review Board Charter, 2020
- o East Link Segment A PHA Tracker (excel sheet)
- o East Link Segment B PHA Tracker (excel sheet)
- o East Link Starter Line Extension Certificate of Conformance (Stations, Tunnel, Guideways, Parking Garages, Track, Signals, Communication)
- o East Link Extension Safety & Security Management Plan, 2023
- o Federal Way Link Extension Safety & Security Management Plan, 2022
- o TSS Annual Reports (NTD, SSO)
- o TSS Modal Teams Monthly Tracking & Trending Notes (SharePoint)
- o ASP Key Performance Indicators Power Bi
- o Link Performance Indicators Power Bi
- o 2023 Safety Culture Survey Presentation
- King County Metro documentation and records
  - o 2023 Agency Safety Plan

Sound Transit's Title VI notice of rights

Sound Transit conducts Title VI equity analyses for service and fare decisions to ensure they are made as equitably as possible.

More information on Sound Transit's Title VI notice of rights and the procedures to file a complaint may be obtained by:

- Phone: 888-889-6368; TTY Relay 711;

- Email: **stdiscriminationcomplaint@soundtransit.org**;

- Mailing to Sound Transit, Attn: Customer Service, 401 S. Jackson St. Seattle, Washington 98104-2826; or

- Visiting our offices located at 401 S. Jackson St. Seattle, Washington 98104.

A complaint may be filed directly with the Federal Transit Administration Office of Civil Rights, Attention: Complaint Team, East Building, 5th Floor – TCR, 1200 New Jersey Avenue, SE, Washington, DC 20590 or call 888-446-4511.

Report Prepared by:

Jim Ottman
Digitally signed by Jim Ottman
Date: 2024.05.29 07:17:31 -07'00'
_____
Jim Ottman, Sr. Compliance Auditor (Lead Auditor)

Reviewed (QA/QC) by:

Heather F. Wright
Digitally signed by Heather F. Wright
Date: 2024.05.29 09:19:00 -07'00'
_____
Heather Wright, Deputy Director, Audit Division

Approved for release by:

Patrick Johnson
Digitally signed by Patrick Johnson
Date: 2024.05.29 09:27:16 -07'00'
_____
Patrick Johnson, Director, Audit Division