

# Sounder Commuter Rail Internal Safety Audit

Report #: 2024-04

## Executive Summary

Internal Safety Audits are required to be completed annually by federal regulations for Sounder Commuter Rail service, and FRA 49 CFR 270 program standards. These safety audits periodically review agency safety programs to assure that processes are being performed as intended and required under the System Safety Plan (SSP).

### Audit Objective

Our audit focused on reviewing safety controls, processes, and procedures to ensure the safe operations, maintenance, and safety oversight of Sounder Commuter Rail service by Sound Transit as a service owner, Amtrak as the contracted mechanical maintainer, and BNSF as the contracted operator.

Audit criteria included processes and programs captured by the System Safety Plan (SSP) based on guidance from the Federal Railroad Administration’s (FRA) Safety Management Systems (SMS) framework under 49 CFR Part 270.

The audit period for this internal audit spanned from **August 2023** to **October 2024**.

### Conclusion

From our audit, we identified **one (1) finding** of non-compliance and **five (5) observations**, listed below, and discussed in more detail beginning on page 5 of this report.

### Summary of results:

Ref #	Issue Title	Risk Rating
F.1	The process for keeping safety equipment up-to-date and properly maintained was not followed.	4C - Medium
O.1	No formal process was observed for requesting, reviewing, and analyzing safety & maintenance records from partner agencies.	N/A
O.2	No formal process was observed to document and communicate labor shortages.	N/A
O.3	The escalation process for a “Serious/Undesirable” SAIR issue was not followed.	N/A
O.4	No formal process to indicate the number of spare passenger locomotives necessary to support revenue service.	N/A
O.5	No standard equipment lists exist to ensure all required safety equipment is on board and to avoid unnecessary items that could pose risks.	N/A

# Background

## Federal Requirements for Sounder Commuter Rail Service

In 2018, the Federal Railroad Administration (FRA) published 49 CFR Part 270, which requires rail properties to develop and use transit-specific safety management systems (SMS) framework through public transportation System Safety Plans (SSP) to oversee safety processes.

The 270 rule also requires agencies to maintain documentation set forth in their respective system safety plans, including those related to SMS implementation and documentation resulting from SMS processes and activities. This rule also requires an annual review of the SSP for updates, corrections, and modifications.

## Sounder Commuter Rail Service

Sound Transit, as the owner of Sounder Commuter Rail Service, provides fiscal, performance, management, and safety oversight and contracts with Amtrak, BNSF, and Stacy Witbeck for the management of operations and maintenance and safety processes under an intergovernmental agreement (IGA).

For Sounder Commuter Rail, an SSP governs commuter rail safety. Each must be reviewed and approved according to local requirements. The FRA must approve Sound Transit's SSP.

## Audit Topic Selection

Sound Transit's Audit Division used a risk-based approach to identify topics for auditing safety management systems. 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 second audit from our 3-year Agency Audit Plan cycle (2023 – 2025), covering portions of elements contained in the System Safety Plan, as required by requirements under the Federal Railroad Administration (FRA) CFR 270 rule.

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

- Interviewed ST and Amtrak staff to verify their understanding of safety processes.
- Compared the agency's SSP – related procedures and plans 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 and procedures, which our Audit Charter governs, and we meet 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. 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), Federal Railroad Administration (FRA), and all other relevant auditing requirements or standards.

### **Audit Phases**

Our audits are risk-based and focus on the areas with the highest potential risk impacts or likelihood at the time of the audit. 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 engagement-specific conditions and risks, informing and confirming the audits’ objectives and scope. 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 mitigate the risk (control environment) adequately, we assess the degree to which the controls mitigate the risk (control activities). Any areas identified where the control environment or activities do not sufficiently reduce the identified risk are identified as an exception. Fieldwork for this audit consisted of interviews, document requests and field visits. (See Appendices A and B for more detail)

Exceptions are defined as either findings or observations:

- **Findings** are non-compliant conditions, supported by evidence, that are not in compliance with an audit criterion, such as a policy, procedure, manual, standard, or industry best practice.
- **Observations** are conditions that may be compliant with requirements; however, the auditor has determined that they pose the potential risk of becoming a finding in the future if recommended changes are not put in place to prevent their occurrence.

All Findings are risk-rated based on potential likelihood and impact based on attributes outlined in Appendix A.

# Audit Results

This section of the report encompasses the main audit areas we reviewed this audit cycle, organized by issue category:

Issue Category	Number of findings	Number of observations
Policy	1	2
Risk Management	0	3
<b>Totals</b>	1	5

## Policy

**Finding 1:** *The process for keeping safety equipment up-to-date and properly maintained was not followed.*

During a field visit, we discovered an AED with expired pads. As part of their daily inspection process, Amtrak is supposed to ensure that safety equipment is up-to-date and adequately maintained. Amtrak agreed, in an email dated November 15, 2018, “to inspect them as part of our daily equipment inspection, and one of our mechanical personnel keeps a record of the AED serial number and which car it is located.” We requested an SOP from Amtrak to verify this process and did not receive one. This is a repeat issue.

**Observation 1:** *No formal process was observed for requesting, reviewing, and analyzing safety & maintenance records from partner agencies.*

During the audit, we asked Amtrak for SOPs and a copy of the blank checklist for each type of inspection on SCR equipment. At the time of the Audit Exit Meeting, we alerted management of our request, and again asked for the SOP. To date, we have not received a response to furnish any of the requested documents.

**Observation 2:** *No formal process was observed to document and communicate labor shortages.*

Currently, SCR and operating/maintaining partners informally notify each other in advance of any future service additions or reductions to avoid labor impacts on SCR maintenance and service.

## Risk Management

**Observation 3:** *The escalation process for a “Serious/Undesirable” SAIR issue was not followed.*

The 2024 Sound Transit SSP states that any items found serious or undesirable on that SAIR log must be escalated to the Safety Hazards Oversight Panel (SHOP) for risk

mitigation and review if no resolution can be found. In the audit, we identified one issue that had not been escalated as part of this process.

**Observation 4:** *No formal process was observed to indicate the number of spare passenger locomotives necessary to support revenue service.*

SCR currently has no spare locomotives in its fleet. We found no language in contracts or IGAs that states how many spare locomotives are needed or a ratio (locomotives to cars/train consists) to have a required number of spare locomotives.

**Observation 5:** *No standard equipment lists exist to ensure all required safety equipment is on board and to avoid unnecessary items that could pose risks.*

We asked Amtrak and SCR for a list of required safety equipment required on SCR locomotives/train consists and were informed that there isn't one. Our concern is that SCR is not properly inventorying, maintaining and stocking required safety equipment on trains. We are also concerned about some non-required items, such as axes, currently on SCR trains that could pose an unintended safety risk to passengers and crew.

NOTE: ST is currently working on a project to create an SOP for inventory management of STB kits.

## Positive Practices

- There is a proactive involvement by Sounder & Safety to address micro-mobility vehicles and the risk they pose onboard our trains.
- The SCR Mechanical Specialist has a good working relationship with Amtrak.

# Appendices

## Appendix A: List of interviewed staff

The audit team interviewed the following individuals during their safety audit of Sounder Commuter Rail.

- Sound Transit
  - Executive Operations Director of Commuter Rail, Bus & Paratransit
  - Deputy Director – Commuter Rail Operations
  - Superintendent - Maintenance of Way
  - Manager – Commuter Train Transportation
  - Manager – Health and Safety
  - Manager – Transportation Safety & Security
  - Senior Transportation Safety & Security Specialist
  - Commuter Rail Mechanical Specialist
  
- Amtrak
  - Mechanical Superintendent
  
- BNSF
  - Superintendent of Suburban Operations

## Appendix B: List of documents and records reviewed

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

- **Sounder Commuter Rail documentation and records**
  - Sounder Commuter Rail System Safety Program: May 2024, Version 3.0
  - Sounder Commuter Rail – AMTRAK Maintenance and Repair of Commuter Rail Rolling Stock Agreement: September 2000
  - Sounder Commuter Rail – AMTRAK Maintenance and Repair of Commuter Rail Rolling Stock Agreement Amendment No. 5: March 2020
  - Sounder Commuter Rail – AMTRAK Maintenance and Repair of Commuter Rail Rolling Stock Agreement Side Letter: July 2022
  - Sounder Commuter Rail – AMTRAK Maintenance and Repair of Commuter Rail Rolling Stock Agreement Side Letter: September 2022
  - Sounder Commuter Rail – AMTRAK Maintenance and Repair of Commuter Rail Rolling Stock Agreement Side Letter: July 2024
  - Sounder Fleet Maintenance Plan: December 2022, Version 2.0
  - Sounder Fleet Management Plan 2022 – 2031: April 2023, Version 1.1
  - Sounder Commuter Rail Locomotive Inventory and Life Cycles Chart: August 2024
  - Sound Transit Accident Prevention Program: February 2024, Version 8.0
  - SCR Internal Control Plan for Accident and Incident Reporting: May 2024, Rev. 12
  - SCR Safety Action Item Registry (SAIR) Log: August 2023 – October 2024
  - Sounder Roadway Worker Protection Program Plan: Feb 2021
  - Sounder Notification Guidelines: Jan 2020
  - Sounder Notification Guidelines Matrix: May 2020
  - SCR.SOP-10003, Sounder Safety Incident Notification Procedure: Sep 2019
- **Sound Transit documentation and records**
  - Sound Transit Integrated Preparedness Plan: January 2024, Version 7.0
  - TSS SOP-01: Agency Safety Plan review & approval process
  - TSS-SOP-TSS02-FRA-RPTG, Rev 1.0 Jul 2022
  - Sound Transit Incident Report Form: September 24, 2021 – Train A 17031-24A Holgate Yard
  - EXD-SOP-10005 Operations Incident/Event Notifications: Rev 1.2 Feb 2023
- **FRA documentation and records**
  - FRA 49 CFR 270 – System Safety Program: Up to date as of October 2024
  - FRA 49 CFR 271 – Fatigue Risk Management Program: Up to date as of October 2024
  - FRA 49 CFR 238 – Passenger Equipment Safety Standards: Up to date as of October 2024

- FRA 49 CFR 273 – Metrics and Minimums for Intercity Passenger Train Operations: Up to date as of October 2024.
  - Monthly FRA Reports: June 2023 – October 2024
  - Joint Rail Safety Committee (SCR / BNSF / AMTRAK / KCSO, (et al.)) Meeting Minutes: August 2023 – September 2024
  - Email Correspondence between Sound Transit EHS and AMTRAK – AEDs: November 2018
  - Email Correspondence between Sound Transit EHS, Sound Transit Emg. Mgt., Sound Transit TSS and SCR – AEDs & STB Kits: September 2024
- **Amtrak documentation and records**
    - AMTRAK MAP X15: September 24, 2021 – ST 107 damage estimates
    - AMTRAK AED Standard Maintenance Procedure No. 38609: November 2015
    - AMTRAK Emergency Equipment Inspection Procedure: Rev. 1.0
    - AMTRAK Letter to SCR – Request to increase to trainsets operating per day / labor shortage: September 2024
- **BNSF documentation and records**
    - BNSF Employee Safety Rules: Aug 2021 – Dec 2023
    - BNSF Seattle Passenger Operations Manual No. 2: April 2019



## Sound Transit's Title VI notice of rights

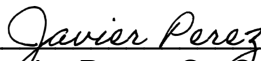
Sound Transit conducts Title VI equity analyses for service and fare decisions to ensure they are made as equitably as possible.

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](mailto: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.

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