INDEPENDENT AUDIT OF THE SOUND TRANSIT INTERNAL SAFETY AUDIT PROGRAM
Final Document

December 08, 2023

Prepared By:

ADS SYSTEM SAFETY CONSULTING, LLC
Table of Contents

1.0 Introduction .................................................................................................................. 3
2.0 Audit Methodology ....................................................................................................... 3
3.0 The Collection of Data and Interviews ...................................................................... 4
4.0 Summary of Governing Documents .......................................................................... 4
  4.1 WSDOT State Program Standard Requirements .................................................. 4
  4.2 Sound Transit Internal Safety Audit Program Requirements ................................. 5
  4.3 Federal Railroad Administration (FRA) Program Requirements ......................... 5
5.0 Independent Audit Results .......................................................................................... 6
6.0 Conclusion .................................................................................................................... 9

Appendix A: Audit Checklists .......................................................................................... 11
Appendix B: Interview Questions ...................................................................................... 12
Appendix C: References ..................................................................................................... 13

1.0 Introduction

At the request of Sound Transit’s Audit Director, ADS System Safety (referred to as “the Audit Team”) conducted an independent audit of the Sound Transit’s (ST) Internal Safety Audit Program (ISAP), with a focus on the Compliance Team, to evaluate compliance with the federal, state and agency processes and Standard Operating Procedures (SOPs).

The ISAP is a federal and state required program to ensure that stipulations contained in 49 CFR Part 673 and the individual state’s program standard are followed by the Rail Transit Agency (RTA), in this case Sound Transit. These regulations are specifically required for light rail and streetcar agencies. Specifics regarding the RTA’s Safety Management System (SMS) elements are outlined in the code and WSDOT Program Standard to assure that a robust, risk based, data driven safety program is in place using trending and risk ranking processes. The RTA is to use risk-based data to make informed decisions regarding internal safety audits to be performed at the RTA.

For Sounder Commuter Rail, governed by 49 CFR Part 270.303, Internal System Safety Program Assessment, contains the regulations regarding the agency’s assessment of System Safety Program (SSP). Under this regulation, the requirements for conducting internal safety program assessments, developing reports, developing improvement plans, and tracking findings are covered in detail. These were all items reviewed as part of the criteria of this audit.

2.0 Audit Methodology

To conduct the audit, the Audit Team created a checklist tailored to light rail and streetcar requirements using the WSDOT State Program Standard and Sounder Commuter Rail checklist using 49 CFR Part 270.303. A third checklist was developed containing internal agency requirements to assure the ISAP is following their own processes when conducting safety audits. All three checklists are included in Appendix A of this report.

Sound Transit’s Audit Division Director was responsible for assisting the Audit Team with internal coordination, setting up online and in-person interviews with key Sound Transit staff, and providing any documents required as part of the audit. The Director did not participate in the interviews with agency staff to ensure independence in the audit process and allow open conversations to occur regarding the auditing process as it pertains to their position conducting safety audits at Sound Transit.

The audit was performed during the month of November 2023. Offsite date collection and online interviews started the first week of November 2023, with onsite activities taking place November 15 and 16, 2023. The Audit Team was also provided online access to internal Sound Transit files online for easy reviewing of documents.

---

3.0 The Collection of Data and Interviews

The documents listed in Appendix C were reviewed by the Audit Team to assess compliance. Our document review provided a very comprehensive look at the ISAP from 2020 through the most current auditing being performed. The focus of the reviews were Internal SOPs and audit plans, communications with the WSDOT SSO office, final audit reports, and Observation and CAP logs. Those documents contain much of the information needed to determine compliance with state and federal requirements for Central Link, Tacoma Link, and Sounder.

Sound Transit staff interviewed as part of the audit were:

- Chief Safety Officer
- Deputy Executive Director, Transportation and Maintenance – Operations Department
- Executive Operations Director, Light Rail
- Director, Transportation Safety and Security (TSS) Division
- Director, Audit Division
- Deputy Director, Safety Business Processes and Projects – TSS Division

Interview questions were centered on each employee’s part of the ISAP, as it pertains to assuring compliance with internal, state, and federal codes and requirements. All persons interviewed were very helpful and answered all questions asked by the auditors. Interviews helped tie together the processes contained in the documents reviewed on how Sound Transit’s ISAP works across the agency. The interaction between Sound Transit and King County Metro was also discussed to understand how the safety audits are conducted and coordinated between the two agencies. A copy of the interview questions is in Appendix B of this report.

4.0 Summary of Governing Documents

As previously stated in this document, there are three main documents from which the audit requirements were developed: the WSDOT State Rail Program Standard, Sound Transit Internal Safety Audit Program Requirements, and the Federal Railroad Administration code. The sections below contain a summary of governing documents Sound Transit uses in administering the ISAP and how we documented to assess compliance.

4.1 WSDOT State Program Standard Requirements

The State Program Standard requirements can be generally put into the following groupings:

- Coordination of audits and planning
- Submission and acceptance of audit documentation
- Corrective Action Plans (CAPs) through coordination with Transportation Safety & Security (TSS)

4.2 Sound Transit Internal Safety Audit Program Requirements

Sound Transit has ISAP requirements to follow to assure consistency and quality of audits performed in their purview. There is an Agency Audit Plan (AAP) which contains guidance for the overall program. The AAP is supported by SOPs which provide additional direction and detail for the program. The AAP is generally structured to meet the requirements of the WSDOT State Program Standard. The audit groups are split into three primary areas:

1. Performance Audit Group focuses on operational performance audits
2. Compliance Audit Group focuses on compliance to the state and federal safety standards
3. Safety and Security Certification Audit Group which focuses on Sound Transit’s capital expansion program.

The AAP provides a triennial breakdown of audits to take place over a three-year period. Performance Audits are grouped by year, Compliance Audits are group per quarter per year, and Safety and Security Certification Audits are generally listed as To Be Determined (TBD) as they are based on contract milestone in construction, which changes often. The AAP also lends itself to work in both the light rail/streetcar side of Sound Transit and well as the Sounder commuter rail, assisting in assuring audit consistency across the agency.

4.3 Federal Railroad Administration (FRA) Program Requirements

Sounder commuter rail falls under the oversight of the FRA, which has their own set of auditing rules contained in 49 CFR Part 270.303 (b) Internal System Safety Assessment Program. This section of the regulations is focused on the following topics that pertain to safety audits of Sounder commuter rail:

1. Conduct internal system safety program assessments;
2. Internally report the findings of the internal system safety program assessments;
3. Develop, track, and review recommendations as a result of the internal system safety program assessments;

---

*To note, CFR 270 is still somewhat new to transit properties and many of the details pertaining the full implementation of Sounder’s SSP are still in progress. During the documentation review, the Audit Team found several elements of the SSP still in the implementation phase; however, they are still being reviewed during audits which is a positive indicator that when completed, internal safety audits will cover those elements as required.

5.0 Independent Audit Results

This section contains the findings and observations identified by the Audit Team. To assure consistency with ISAP terminology, audit terms to define findings and recommendations in this report were pulled from the Sound Transit ISAP SOP’s.

Findings are defined in the Internal Safety and Security Audit (ISSA) Program SOP-01 as “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.” Findings list recommendations that will help move the program into compliance. The appropriate Sound Transit departments should be involved with the development of final CAPs and follow the current CAP process as defined in the Sound Transit’s ISAP for tracking and closure.

Observations are further defined in ISAA SOP-01 as “an issue that may be complaint with requirements, however, the auditor has determined the issues poses the potential risks from becoming a finding in the future if the recommended changes are not put in place to prevent occurrence.” Observations do not need to be tracked as official CAPs as defined by the Sound Transit’s ISAP but should be tracked to closure to assure they are addressed as part of this audit. The current Observation log format could be used for this purpose.

The following table contains the detailed Findings:

Table 1: ISAP Audit Findings

<table>
<thead>
<tr>
<th>Finding#</th>
<th>ISAP-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Section 4.13, Page 32 of the Sound Transit Agency Safety Plan: On a quarterly basis, key staff conduct safety and security inspections at all ST-owned stations.</td>
</tr>
<tr>
<td>Finding</td>
<td>TSS 2021 Central Link Final Report Item 4.1.1.5 and 4.1.1.6 audit results list “Safety is not conducting station inspections”. There is not a finding or observation related to this in the report.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Elements of a program being audited that are found as not being performed should be documented as a finding to correct the deficiency.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finding#</th>
<th>ISAP-02</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria:</strong></td>
<td>CA-ISSA-SOP-01, 4.1.2. The Audit Division Director will review various data points to develop the risk-based audit plan, such as previous audit findings, CAP &amp; Hazard Logs, trends, accident and event reports, employee safety reporting data trends, State and Federal reports, external audits, agency goals, and operations data, and organizational changes to determine the audit schedule and cycle.</td>
</tr>
<tr>
<td><strong>Finding:</strong></td>
<td>Evidence supporting a risk-based audit plan, based on the criteria above, has not been developed.</td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td>Audit Director should collaborate with the Transportation Safety and Security Director to develop a risk-based audit plan and schedule.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finding#</th>
<th>ISAP-03</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria:</strong></td>
<td>Definition of Finding contained in all ISSA Program SOPs.</td>
</tr>
<tr>
<td><strong>Finding:</strong></td>
<td>TSS 2021 Central Link Final Report Audit Checklist Item 2.4.4 for communicating SMS implementation, results state “Has not been done.” and is listed as a moderate risk, however the summary on page 10 of the final report says “2.4 Plan Implementation – The agency is implementing phased milestones identified in the SMS Implementation Plan (currently revision 0.0). These milestones are reinforced by requirements outlined in the ASP.” Also, Section 2 of the audit lists no findings or recommendations.</td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td>Elements of a program being audited that are found as not being performed should be accompanied with a finding to move towards compliance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finding#</th>
<th>ISAP-04</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria:</strong></td>
<td>CA-ISSA-SOP-01 Section 4.9 Final Audit Report QA check requirement.</td>
</tr>
<tr>
<td><strong>Finding:</strong></td>
<td>TSS 2021 Central Link Final Report Item 4.2.2.1 Guidance for Accident/Incident Investigations results were “No written procedures exist outlining King County’s process for conducting investigations on behalf of Sound Transit.” This is listed as a moderate risk. The final summary report on page 11-12 states that “Well defined roles and responsibilities exist between KCM and ST safety departments for the investigation of both safety events reportable to WSDOT State Safety Oversight as well as for those that do not meet WSDOT reporting thresholds.” These statements contradict each other.</td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td>Audits must be consistent throughout the final reporting documents to assure an accurate assessment of the program being audited. From the audit notes to the summary section and findings/recommendations section, all sections must contain the same finding.</td>
</tr>
</tbody>
</table>

---

Finding#: ISAP-05
Criteria: CA-ISSA-SOP-01 Section 4.10 Issuance of Audit Findings and Observations
Finding: Central Link 2021 4.2.4.1 the audit result was listed as “Audit team will review documents in SharePoint” on the notes but does not provide any information about what documentation was reviewed on SharePoint, nor the outcome of the review.
Recommendation: Final Audit reports need to contain complete results of findings on the topic. Final reports need to contain a final determination for the element being reviewed whether compliant, non-compliant, or if there were any observations.

Finding#: ISAP-06
Criteria: AUD-07 Section 2.1.2
Finding: The Observation logs are missing the creation date, therefore tracking them for 180 day follow ups will not be accurate.
Recommendation: Observation dates should be listed in the log to allow timely tracking and follow up

The following is list of Observations recorded from document reviews and interviews. While some of these are not directly tied to safety audits, the information provided could enhance the ISAP.

Observations:

1. Audit Department should develop standardized common language for compliance and performance audits for ease of understanding and eliminate confusion between audit programs being administered from the same department.
2. Audit report-outs to the Finance and Audit Committee should be enhanced to provide more information to the committee. This would create a deeper awareness with what audits are taking place and findings that impact the agency. Current report-outs are very high level and lack sufficient detail to provide proper oversite.
3. There is not a formal Auditor Training Program for Internal Audit staff. Presently, industry standards and trainings are used, such as TSI and ISO guidance which provide general direction. A more formal training curriculum should be developed to assure agency auditors are trained and able to perform audits in a coordinated and consistent manner.
4. ISAP and TSS should develop a process to assure audit CAPs are assigned to the proper process owner.
5. Update the Audit Charter to contain details on audit processes so it is clear to the departments being audited. This could help reduce confusion about the goals of the audit program.

6. Update the Audit Charter to include a conflict resolution section and define an escalation path for resolution.

7. Agency Audit Plan 2023-2025 should include more information regarding safety compliance audits to assure compliance with the WSDOT Program Standard, and that all aspects of the Sound Transit ASP are being audited during the three-year audit cycle. This could be done in an appendix for each mode being audited.

8. The dates from the Transit Safety and Security Department CAP log frequently get pushed out due to “no activities” or “in progress” without the progress being detailed or having no update. Sound Transit may consider putting more emphasis on getting identified CAPs closed in a timely fashion to avoid external pressure from WSDOT SSO office for having a lack of activity to close CAPs. The ISAP could also add this to their audit of the log to track progress and highlight items that may need attention.

9. Do not overlap triennial audit cycles to assure all elements are audited during each cycle, and not audit the same topics twice within a cycle. For example, one triennial cycle is listed as 2021-2023 and the next is 2023-2025. It would be cleaner to list them as 2021-2023 and 2024-2026.

10. Internal Audit should work with the Safety Department to develop Key Performance Indicators to assist in identifying safety related audits to move towards a proactive auditing process and not a reactive auditing process. From interviews, the Audit Team learned that audit may occur due to mishaps, which is not a negative finding, however moving towards a pro-active audit process would benefit the agency in the long run.

11. Internal Audit Plan should directly correlate to the ASP audits by section numbers for ease of tracking.

12. Document coordination and delineation between the Sound Transit Audit Department and the King County Safety Department to assure no gaps or overlaps occur.

13. Consider updating Inter-Governmental Agreements between Sound Transit and King County to include how each agency’s audit department will interact with each other to assure compliance the WSDOT and internal audit requirements.

14. Consider tracking the compliance and performance audits separately to eliminate confusion between cycles.

15. TSS 2022 Tacoma Link Final Audit Report did not contain the checklist used during the audit, like the Central Link Final Audit Report does. To assure consistency, consider adding the checklist to all Final Audit Reports.

16. Instead of sending the schedule out over email for review, a working group where key stakeholders provide input could be more effective and create a sense of owning part of the internal auditing program.

6.0 Conclusion

The Audit Team performed an extensive review of documents, conducted interviews of key stakeholders, and reviewed state and federal requirements as well as internal Sound Transit’s ISAP SOP and guidance document as part of the audit process. The Audit Team found the ISAP

---

to be in good shape overall. Compliance with the state, federal and internal requirements was found to be consistent throughout the audit, with 7 findings contained in Section 5 of this report.

As the Sound Transit Link and Sounder Systems continue to grow, it will be imperative to move into a well-defined risk-based audit model. This will assist in directing the small number of auditors to the most critical locations. Staffing in the Audit Department should also be considered as the rail system grows the number and complexity of audits that need to take place will increase. Furthermore, as the rail system ages, auditing preventative maintenance programs and system performance will be even more imperative to meet the risked based requirements of the WSDOT State Safety Oversight (SS0) Program Standard and 49 CFR 270.

The audits performed on the safety compliance areas of Sound Transit seem to only scratch the surface of what could be included in an audit program for an agency the size of Sound Transit. While compliant with the regulations, the depth of audits, while being risk-based, should be analyzed to assure the audits being performed are happening in the most critical areas.

Audit plan elements appear to be somewhat repetitive and should be assessed and redeveloped in the next audit plan and schedule to identify new elements to be audited. Again, developing a risk-based audit program and schedule will assist in using the limited resources in the most critical locations.

Potentially holding working group meetings with key stakeholders when developing the 3-year audit schedule could help with this and eliminate audit fatigue auditing the same elements/departments, or very similar elements, repeatedly. Creating this mechanism of required feedback would help the agency’s Audit Division be as effective as possible and not overburden the departments being audited.

In closing, maintaining a compliant program in an agency the size of Sound Transit is no easy feat. Considering the growth that has occurred and the new rail expansions in construction, the safety audit program will only continue grow to maintain compliance. Staff levels, support for auditors, well defined and scheduled audits, defined formal training programs, and continued internal cooperation will be important to the success of the program.

---

Appendix A: Audit Checklists

Appendix B: Interview Questions

Sound Transit Internal Audit of the Internal Auditing Program
Interview Questions

ADS Interviewer(s):

Sound Transit Employee(s):

Position(s) Title at Sound Transit: _______________________________________

**Responses to questions will be used to determine compliance with the WSDOT SSO Audit Program and the Sound Transit Internal Auditing Program requirements. The goal of this audit is to determine any gaps between the regulatory programs and current auditing process in place and develop a corrective action plan to address any areas that do not meet program requirements.

1. What is your role in the Internal Safety Auditing Program at Sound Transit?

2. What support does your staff provide during an audit?

3. What is the communication process regarding audit activities pre, during, and post audit to you or your department?

4. What is your awareness and knowledge of WSDOT Internal Audit requirements and Internal Sound Transit Audit requirements?

5. What is your overall experience from internal audits that have taken place with processes you or your direct reports oversee? Provide positive experiences as well as areas of opportunity for improvement in the auditing process?

6. How are final reports and corrective action plans (CAPs) presented to you regarding audits under your purview?

7. What is your role or your staff’s role in tracking and closing and CAPs or observations collected during an internal audit?

8. In your position with Sound Transit, do you have an opportunity to review and comment on the IAP each year? If not, would you see benefit in that process?

9. Are 90 day and 180 followups consistently performed as part of audits done within your command and control at Sound Transit?

10. Are final audit reports clear, concise and contain all necessary information to fully understand the audit process, the details of the audit, the findings/observations, and the Corrective Action Plan process (if needed as part of the audit)

Appendix C: References

Files supplied to Auditor for Review:

2021-2023 Agency Audit Plan
Agency Safety Plan January 2023
Approval_Ltr_Central Link_121522
Approval_Ltr_Tlink_121522
AUD POL 01/2022 Audit Division Charter (3)
AUD_CA_2021_16_Final Report_Link Light Rail_Safety Audit
AUD_CA_2021_AnnualReport_Tacoma Link
AUD_CA_2022_15_Final Report_Sounder_Safety Audit
AUD_CA_2022_16_Final Report_Tacoma Link_Safety Audit
AUD_CA_2022_17_Final Report_Link Light Rail_Safety Audit
AUD_CA_2022_AnnualReport_Tacoma Link
AUD_CA_2022_RPT_Annual Report_CFR225 Internal Audit
AUD_CA_2023_06_Audit Notification Letter_Tacoma Link Internal Safety Audit
AUD_CA_2023_10_SCR_AuditReport
AUD_CA_2023_13_Audit Notification Letter_Link Light Rail Internal Safety Audit
AUD_CA_2023-10_CFR225_AuditReport
AUD_LTR_2023_TSS AnnualReportLetter
AUD_RPT_2020_FAC_Annual_Report
AUD_RPT_2021_FAC_Annual_Report
AUD_RPT_2022_Audit Division_Annual Report_Updated
AUD_RPT_2022_FAC_Annual_Report
AUD_SSO_2022 Link Audit Annual Report
AUD_SSO_2022 Tacoma Link Audit Annual Report
Audit Division Admin SOP 05: Annual Reporting SOP
Audit Division SOP - AUD 01: Access to Restricted/Sensitive Information (v1)
Audit Division SOP – AUD 02: Conflict of Interest Form (v1)
Audit Division SOP - AUD 07: Monitoring and Follow up Activities
Audit Division SOP - AUD 08: Numbering/Naming Conventions SOP
Audit Organization_2023
Central Link CAPs_November 2023
Compliance Group SOP - CA ISSA SOP 01: Internal Safety/Security Audits
Compliance Group SOP - CA ISSA SOP 02: Field Surveillance Activities (v1.0)
EMAIL_AUD_Distribution of 2023-2025 Agency Audit Plan
EMAIL_AUD_Revision to the 2020 Sound Transit Internal Safety Audit Schedule - Tacoma Link

EMAIL_WSDOT_Acceptance Letters - Link Maintenance and Tacoma Link Audits Sep 2020
Final Report Central Link Triennial
Final_Report_2021_Tacoma Link Triennial
SSO_2021 Sound Transit Link Triennial Audit_Final Report Ltr
SSO_2021 Sound Transit Tacoma Link Triennial Audit_Final Report Ltr
SSO_ISA_2021_Link_Final Report Acceptance Ltr
SSO_ISA_2021_TL_Final Report Acceptance Ltr
SSO_ISA_2022_Link_Final Report Acceptance Ltr
SSO_ISA_2022_TL_Final Report Acceptance Ltr
SSO_ISA_Link_TL_Audit Checklist Approval 2022
SSO_ISA_Link_TL_Audit Checklist Approval 2023
SSO_ISA_TL_Audit Checklist Approval 2021
Tacoma Link CAPs_November 2023
TSS_2020_Central Light Rail Annual Report
TSS_2020_Tacoma Link Annual Report
TSS_2021-Central-Link Annual Report
TSS_2021-Tacoma-Link Annual Report
TSS_2022 Central Link Annual Report
TSS_2022 Tacoma Link Annual Report
TSS-SOP-TSS09-CAP-R1.0-2022-AUG
WSDOT SSO Program Standard version 6.0 dated February 2023