



2023 FTA JOINT STATE SAFETY OVERSIGHT AND RAIL TRANSIT AGENCY WORKSHOP

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Session 7

Strengthening Rail Transit Safety through Auditing, Special Reviews, and Program Assessments

2023 FTA Joint SSO and RTA Workshop

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Agenda

- Introduction
- Safety Audit Process and Tips
- Scenario Overview
- Classroom Warm-Up Exercise
- Exercise #1
- Exercise #2
- Discussion and Conclusion



Safety Audit Process

- Have a plan
- Prepare
- Review documentation
- Schedule activities
- Perform on-site audit activities
- Take good notes and collect audit evidence
- Develop the report and reference audit evidence
- Write clear findings and recommendations
- Review draft and finalize audit report

Safety Audit Process

Look
Listen
Observe

Corrective Actions for Findings

Specific

Measurable

Achievable

Relevant

Timebound

“Who will do what by when?”

Corrective Actions for Findings

Specific – Actions to mitigate the identified hazards

- Short/long term solutions
- Identify individual's roles and authorities
- Criticality

Measurable – Develop interim benchmarks

Achievable – Actionable, resources, reasonable

Relevant – Actions directly support addressing the risk/hazards

Timebound - The schedule for taking those actions

Scenario Overview – New Mexico DOT (NMDOT)

- It is November 14, 2023.
- You are starting as the Program Manager for the (hypothetical) NMDOT State Safety Oversight Agency (SSOA) with years of oversight experience.
- Your SSOA oversees (the hypothetical) Santa Fe Transit
 - Opened in October 2018
 - Runs a 15-mile light rail system
- For the last five months, the SSOA has had an interim Program Manager (a state grants manager).
- The SSOA's safety services consulting contract expired in July, though NMDOT has received bids for a new contractor to start by January.
- You need to conduct your own review to better understand your program.

Classroom Warm-Up Exercise

Program Standard Review

- NMDOT Program Standard Section 1.5: Program Standard Management
- NMDOT Program Standard web page
- NMDOT Program Standard title page
- Discussion notes with former Interim SSO Program Manager (State Grants Manager)



NMDOT Program Standard

New Mexico Department of Transportation

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Section 1.5 Program Standard Management

The NMDOT SSO Program Standard is managed by the SSO Program Manager. The document is to be reviewed annually and revised as needed. Revisions may be necessary upon changes or enhancements to SSO oversight processes, federal regulations, findings from audits and reviews, and other needs.

The RTA is provided an opportunity to submit comments on the SSO Program Standard.

The current, governing program standard is available at:

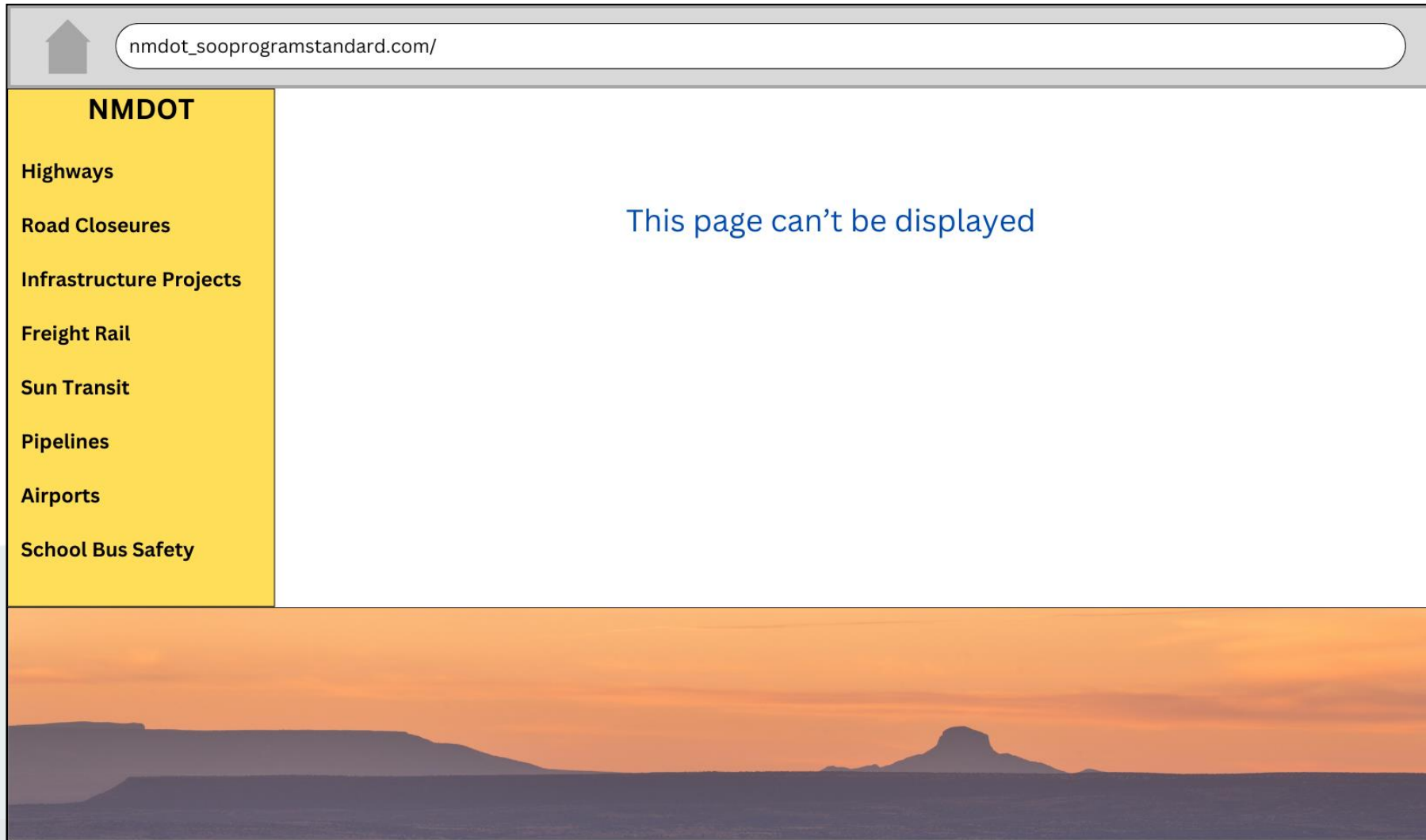
www.NMDOT_ssoprogramstandard.com

During years in which the document does not need revising, a formal letter is issued and provided on the website to verify the posted version of the document remains current. During years in which the document is revised, the SSO and NMDOT Deputy Chief of Rail will sign-off, date, and approve the document prior to publishing it to the dedicated webpage.

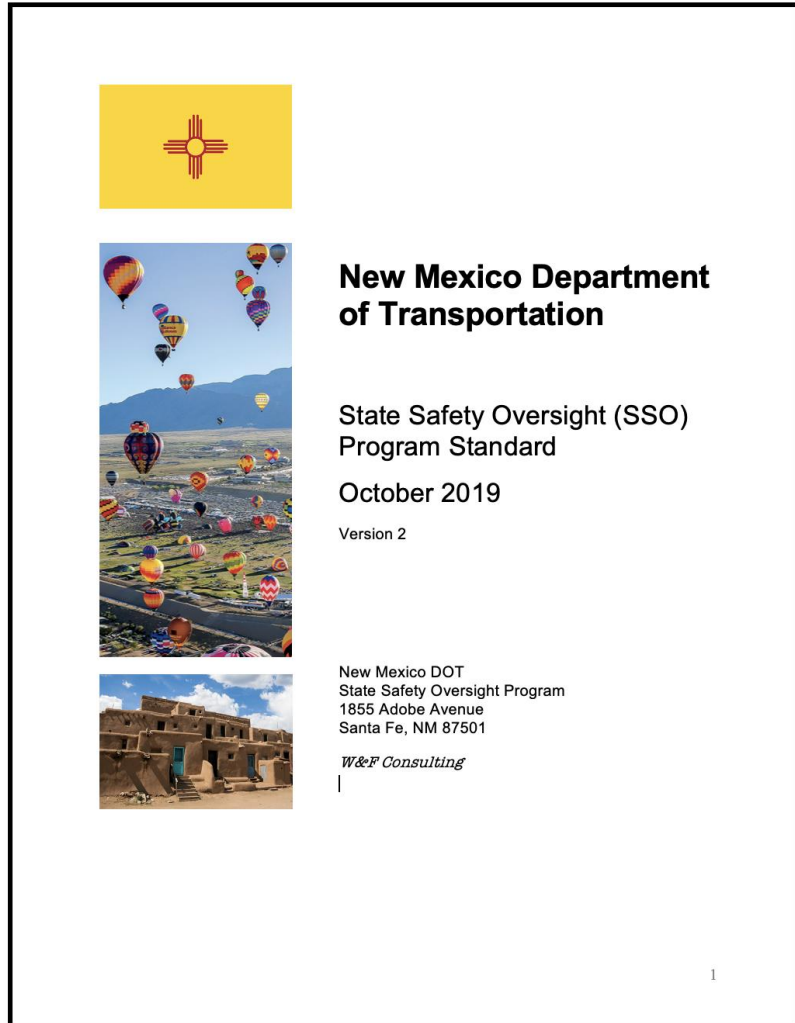
The annual review process schedule is:

- January 10-31: Review period and acceptance of comments
- February 1-14: Document revision and editing
- February 15-28: Sign-off, approval, and publishing to website

NMDOT Program Standard Web Page



Documentation and Discussion Notes



Discussions with the State Grants Manager (the former Interim Program Manager for the SSOA) revealed some important changes to the SSOA and RTA:

- There was a major reorganization of NMDOT in late 2021 that impacted the SSO Program
- Santa Fe opened two new stations in the spring of 2022
- In the last FTA Audit of NMDOT's SSOA in June 2022, there were findings requiring updates to the SSO Program Standard

NMDOT Program Standard Review and Revision

Preliminary findings?

1. The web page does not work.
2. The program standard is outdated and needs to be revised based on changes over the past 3.5 years.

Warm-Up Exercise: Corrective Actions

Example - Propose a SMART CAP

ISSUE	CORRECTIVE ACTIONS	ASSIGNED TO	TARGET/ COMPLETION DATE
Approved Program Standard (PS) not published on the website (as per NMDOT's Program Standard).	<ol style="list-style-type: none"> 1. Assign an individual to publish the Program Standard to the website after annual review/revision/approval 2. Mike Line to upload signed/approved Program Standard to the designated website 	<p>Mary Jones</p> <p>Mike Line</p>	<p>T: 11/15/2023 C: 11/14/2023 CL</p> <p>T: 2/28/2024 C: OPEN</p>
NMDOT's Program Standard is not in compliance with annual review/revision requirements.	<ol style="list-style-type: none"> 1. Assign individual to manage the PS review/revision process 2. Conduct PS review/revision process 3. Document revisions and editing 4. Sign-off and approval 	<p>Mike Line</p> <p>Mike Line</p> <p>Mike Line</p> <p>Mike Line</p>	<p>T: 11/15/2023 C: 11/14/2023 CL</p> <p>T: 1/10 – 31/2024 C: OPEN</p> <p>T: 1/1 – 14/2024 C: OPEN</p> <p>T: 2/15 – 28/2024 C: OPEN</p>

Exercise Directions

As the new NMDOT SSO Program Manager your first job will be to become familiar with the NMDOT SSO Program:

- Read the exercise scenario and review the accompanying documents and support information.
- What are your preliminary findings on NMDOT's program or processes?
- Develop a Corrective Action Plan to address for at least one of your findings.

Exercise #1 – Triennial Safety Audits

- NMDOT conducts its Triennial Audit on an on-going basis over three years.
- The current three-year cycle began in 2022.
- **Your plan:**
 - Review a triennial safety audit report.
 - Determine what work was previously conducted by your predecessors and Santa Fe Transit.
 - What is the quality of that work?
 - Are there issues relative to your program standard?
 - What gaps of information, if any, are there?
 - Are there other issues?

Exercise #1 – Triennial Safety Audits

You will look at the following available documents and information from the March 2022 NMDOT Triennial Audit on Safety Management Systems (SMS):

- 49 CFR Part 674.31: Triennial audits; general requirements.
- NMDOT Program Standard Section 5.0: Triennial Safety Audits Minimum Requirements
- NMDOT Triennial Audit Schedule and Status 2022–2024
- NMDOT Triennial Audit Report *SMS – Safety Risk Management*
- Santa Fe Transit Safety Committee Meeting Minutes (excerpts)
- February 2022 Santa Fe Transit Hazard Log

Exercise #1 – Triennial Safety Audits

1. Break into groups.
2. Read documentation.
3. Discuss and identify findings.
4. Develop at least one CAP.



Exercise #1 – Report Out Findings

- NMDOT Program Standard Triennial Safety Audit Minimum Requirements
- NMDOT Triennial Safety Audit Schedule and Status 2022-2024
- NMDOT's SMS (SRM) Triennial Safety Audit
- Hazard Log
- Safety Committee Meeting Minutes

Exercise #1 Answer Key

NMDOT Program Standard Triennial Safety Audit Minimum Requirements

- It does not explain that Triennial Audits will include findings and recommendations, which may result in Corrective Action Plans.
- It does not specify that NMDOT will issue a report with findings and recommendations resulting from the audit(s) at the end of the three-year audit cycle as per 674.31.

Exercise #1 Answer Key

NMDOT Triennial Safety Audit Schedule and Status 2022–2024

- Only 18 areas listed on the schedule.
- NMDOT is behind 1 audit issue in 2022 and 2 in 2023. 6 audits in 2024.
 - Can NMDOT conduct 10 Triennial Audits in 2024?
- ASP elements do not use SMS language (Management of Change vs. Configuration Management)

NMDOT SMS (SRM) Triennial Safety Audit Report

- No findings.
- Support documentation reveals issues and inconsistencies with the Santa Fe's Safety Committee meeting minutes and February Hazard Log

Exercise #1 Answer Key

NMDOT Triennial Safety Audit on Safety Management Systems – *Safety Risk Management*

Hazard Log Concerns

- The hazard log – no “Department Responsible” as per Program Standard
- HAZ-ST-104 “Blind Spot/Sharp Corner” has been open since February 2021.
- HAZ-ST-106 “AED Missing Inspections” has been open since 9/23/2021, and there are no hazard severity or probability ratings, and there is no implementation date or status update.

Exercise #1 Answer Key

NMDOT Triennial Safety Audit on Safety Management Systems – *Safety Risk Management*

Safety Committee Meeting Minutes

- Issues with employee access to Sun Dial reporting portal — employee access issues since November.
- AED – one missing in the Greenville facility and another found damaged in the administration offices.
- Near miss event with station custodian at Benton Park Platform on February 2.
- Right of Way trespassing, maintenance issues, and hazards near switch 18.

Exercise #1 Report Out – Corrective Actions

Propose a SMART CAP.

ISSUE	CORRECTIVE ACTIONS	ASSIGNED TO	TARGET/ COMPLETION DATE

Exercise #2 – Accident Notifications and Investigations

- NMDOT did not conduct an Accident Investigation Triennial Safety Audit in 2022 as per its schedule. You want to understand how Santa Fe Transit’s accident notification and investigation program is going.
- **Your plan:**
 - Review available documents
 - Determine what work was previously conducted by your predecessors and Santa Fe Transit –
 - What is the quality of that work?
 - Are there issues relative to your program standard?
 - What gaps of information, if any, are there?
 - Other issues.

Exercise #2 – Accident Notifications and Investigations

You will look at the following available documents and information:

- 49 CFR Part 674:
 - § 674.27(a)(6) Accident notification
 - § 674.33(a) Notifications of accidents
 - § 674.35(a)–(c) Investigations
- NMDOT Program Standard Section 7.0: Accident Notifications and Investigations
- NMDOT Events Log of Santa Fe Transit Accidents from 2021 – 2024
- Santa Fe Transit March 6, 2022, Accident Investigation Report: *LRV 125 Derailment at Cerrillos & Alta Vista*

Exercise #2 – Accident Notifications and Investigations

1. Break into groups.
2. Read documentation.
3. Discuss and identify findings.
4. Develop at least one CAP.

Exercise #2 – Report Out Findings

- NMDOT Program Standard Accident Notification and Investigation Minimum Requirements
- NMDOT's Events Log of Santa Fe Transit Accidents from 2021 – 2024
- Santa Fe Transit's March 6, 2022, Accident Investigation Report



Exercise #2 Answer Key (Slide 1 of 3)

NMDOT Program Standard Accident Notification and Investigation Minimum Requirements

- 7.1 Notifications does not include nature of notification information to be provided to the NMDOT as per § 674.27(a)(6).
- 7.2 Investigations does not state that NMDOT will conduct an independent review of the RTA's analysis and findings of causation as per § 674.35.
- 7.4 Training does not state the training standard of the Public Transportation Safety Certification Training Program, as per § 674.35(c).

Exercise #2 Answer Key (Slide 2 of 3)

NMDOT's Events Log of Santa Fe Transit Accidents from 2021 – 2024

- July 12, 2021, tunnel evacuation was not reportable to SSOA/FTA – only for life safety reasons.
- No notations for two-hour notifications for the August 11, 2021, and February 15, 2022, accidents
- No CAPs for any accidents on the log, especially with 3 derailments involving the same switch and the same rule violation.

Exercise #2 Answer Key (Slide 3 of 3)

Santa Fe Transit's March 6, 2022 Accident Investigation Report

- No mention of Drug & Alcohol testing.
- The NMDOT Events Log for Santa Fe Transit accidents listed 3 LRV derailments at Cerrillos & Alta Vista involving switch SF-7 and same rule violation.
 - No analysis of switch or why operators keep failing to ensure the switch is properly aligned at this location.
- There are no track or vehicle assessments.
- The operator said he was “a little blinded” by construction light towers – hazard?
- Report notes the operator's hours of service. No comment or analysis of fatigue as a potential causal factor.

Exercise #2 Report Out – Corrective Actions

Propose a SMART CAP.

ISSUE	CORRECTIVE ACTIONS	ASSIGNED TO	TARGET/ COMPLETION DATE

Discussion and Conclusion

- Thoughts?
- Comments?
- Questions?



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