



Office of State Safety Oversight Light Rail Program 2017 Annual Report

Mission

The mission of the Office of State Safety Oversight (OSSO) is to ensure a safe and secure environment for riders and the general public who interact with the Light Rail Public Transportation System through collaborative partnerships, providing guidance, and conducting audits, reviews and inspections.

Overview

Federal Transit Administration requires states with rail fixed guideway public transportation systems within the State to oversee the safety of those rail fixed guideway public transportation systems. In Minnesota, the Department of Public Safety is the designated agency for safety oversight of rail fixed-guideway safety systems.

The FTA requirement for the SSO currently focuses on system safety processes surrounding the Rail Transit Agency's System Safety Program Plan (SSPP) and Security & Emergency Preparedness Plan (SEPP). The Minnesota Rail Safety Oversight Program Procedures and Standards describes the minimum content that the Minnesota Rail Safety Oversight Program (MnRSOP) requires for these two plans, as well as associated procedures for reviewing those plans and assessing their implementation.

The overall objectives of the Office of State Safety Oversight are to reduce the potential for safety and security incidents and to increase safety and security awareness at the Rail Transit Agency (RTA). The Minnesota Procedures and Standards include minimum requirements for safety practices to reduce the likelihood of unintentional events that may lead to death, injury, or property damage, and security practices to reduce intentional wrongful, criminal, or terrorist acts.

In April 2016, the Federal Transit Administration issued a final rule (49 CFR Part 674) for State Safety Oversight of rail fixed guideway public transportation systems not regulated by the Federal Railroad Administration (FRA). This final rule replaces the current State Safety Oversight (SSO) rule (49 CFR Part 659), which will be rescinded no later than three years following the effective date of this rule. The rule strengthens an SSOA's authority to conduct inspections and investigate accidents, approve corrective action plans, and oversee an RTA's implementation of its safety plan. The rule also gives FTA the authority to take enforcement actions against those states with non-existent or non-compliant safety oversight programs.

Background

In July 2000, the U.S. Department of Transportation requested that the State of Minnesota designate an agency to establish safety requirements to comply with the State Safety Oversight Rule, 49 CFR 659. This designation was prompted by Federal Transit Administration approval and grant award for the Hiawatha Corridor Light Rail Line. In October 2000, the Minnesota Department of Public Safety-State Patrol was assigned the duties of State Safety Oversight.

The State Patrol's role included the oversight of a contractor with technical expertise to conduct project oversight, and develop the required documents to fulfill the requirements of 49 CFR 659. The State Patrol, with contractor support, provided oversight for the design, construction, and revenue service phases of the Metro Blue Line (Hiawatha Line) and the design, construction, and revenue service phases of the Metro Green Line (Central Corridor).

In 2014, the State Legislature passed Minnesota Statute 299A.017 establishing the Office of State Safety Oversight (OSSO). On February 11, 2015, the OSSO was staffed by a program manager and began full-time oversight duties.

In 2016, the federal State Safety Oversight final rule took effect and requires states to attain certification of their SSO programs. The SSO rule also gives FTA the authority to review and approve each State's SSO program and take enforcement actions against those states with non-existent or non-compliant safety oversight programs. Minnesota's SSO Program was the second state in the nation to receive FTA certification on October 11, 2017.

Budget

The OSSO is staffed by a program manager and funded with \$60,000 state general funds and a \$240,000 federal match for a total budget of \$300,000; a 20 percent state funding and 80 percent federal match.

Performance Measures

The Office of State Safety Oversight works primarily with the Metro Transit Rail Safety Department and the Metro Transit Police Department to accomplish the required objectives in the Federal Rule. Some of the activities include:

- Audit compliance regarding specified elements in the System Safety Program Plan.
- Oversee accident investigations.
- Monitor Metro Transit overall operations regarding safety.
- Security elements (until 49 CFR 673 becomes final).
- Approve and monitor corrective action plans from initiation to completion.
- Review and approve System Safety Program Plan and Accident/Incident Investigation Plan.
- Assisting Rail Safety in conducting internal audits.

The OSSO oversees the safety certification process regarding the development of the Green Line (Southwest Corridor) and the Blue Line (Bottineau) extension projects. This includes oversight of the processes used by Metro Transit during the design phase, construction phase, and the pre-revenue service phase of the projects.

Accident Investigations

The Office of State Safety Oversight is required by the FTA SSO Final Rule, to investigate certain accidents involving the transit agencies it oversees. Under the Minnesota Rail Safety Oversight Program definition, accident means an incident meeting any of the following criteria:

1. A fatality at the scene or when an individual is confirmed dead within 30 days of a rail transit-related incident;
2. Injuries requiring immediate medical attention away from the scene for two or more individuals;
3. Property damage to rail transit vehicles, non-rail transit vehicles, other rail transit property or facilities and non-transit property that equals or exceeds \$25,000;
4. An evacuation due to life safety reasons;
5. A collision at a grade crossing;
6. A mainline derailment;
7. A collision with an individual on a rail right-of-way; or
8. A collision between a rail transit vehicle and a second rail transit vehicle, or a rail transit non-revenue vehicle.

If any incident meets the criteria above, the transit agency must notify the MnRSOP within two hours of the occurrence. In accordance with Federal Transit Administration requirements, an SSOA must investigate or require an investigation of any accident and is ultimately responsible for the sufficiency and thoroughness of all investigations, whether conducted by the SSOA or RTA. Currently the Transit Agency conducts its own investigation and submits the final report to the OSSO.

When the final report is received, the OSSO reviews the report to ensure a thorough description of investigation activities, causal and contributing factors are identified, and corrective actions are established and implemented, if applicable. After review and any changes, the OSSO formally approves and adopts the final investigation report and notifies the transit agency.

The light rail oversight program manager may assist the transit agency in investigations by interviewing operators, reviewing video footage and reviewing documents in the investigation file.

The following table displays a three-year summary of train miles traveled and collisions at Metro Transit. The table also displays the collision per 100,000 miles.

Light Rail Transit Collision Data Summary			
	Blue Line	Green Line	System Total
2015 Train Miles	2,708,223	2,493,951	5,202,174
2015 Collisions	13	32	45
2015 Collisions/100,000 Miles	0.48	1.28	0.87
2016 Train Miles	2,777,097	2,548,548	5,325,645
2016 Collisions	13	24	37
2016 Collisions/100,000 Miles	0.46	0.94	0.69
2017 Train Miles	2,781,957	2,612,312	5,394,269
2017 Collisions	12	24	36
2017 Collisions/100,000 Miles	0.43	0.91	0.66

The table below displays a three-year summary of details regarding the type of collisions that have occurred at Metro Transit.

Light Rail Reportable Collision Details							
	Blue Line	Green Line	System Totals (3)	Train	Motor Vehicle	Bicycle	Pedestrian
2015 No Damage/No Injury (1)	2	1	3	N/A	N/A	1	2
2015 Property Damage	6	23	29	N/A	N/A	0	0
2015 Personal Injury	4	6	10	0	3	1	6
2015 Fatality	1	2	3	0	0	1	2
2016 No Damage/No Injury	1	0	1	N/A	N/A	0	1
2016 Property Damage	7	17	24	N/A	N/A	1	0
2016 Personal Injury	4	7	11	0	8	0	5
2016 Fatality	1	0	1	0	0	0	1
2017 No Damage/No Injury	1	1	2	0	0	0	2
2017 Property Damage	7	13	20	0	0	0	0
2017 Personal Injury	4	9	13	5	8	0	5
2017 Fatality	0	1	1	0	1	0	0

(1) No damage/No injury – is a reportable crash with no visible property damage/no visible personal injury/hit and run vehicle with no damage to the train.
(2) N/A - indicates information not available.
(3) System Totals - total reportable collisions to light rail system. Injury and fatality totals may reflect multiple injuries in one or more vehicles.

Corrective Actions and Hazards

The rail transit agency must have a Hazard Management Program and an approved Corrective Action Plan (CAP) Process that actively analyzes the agency's operating environment, policies and procedures, system modifications and extensions, and other areas that affect safety, for potential hazards. The hazard management process must identify, report, classify, resolve, and track safety hazards in a manner that is planned, consistent, and rigorous, as well as appropriate to the transit agency's size and operating situation.

Corrective action plans are required for deficiencies identified through the on-site safety and security review, accident and hazards investigations, internal safety and security reviews, or other means by which a hazard may be brought to the attention of transit system. The transit agency maintains the CAPS LOG and submits to the OSSO on a monthly basis. The program manager meets on a regular basis as well with the Safety Department to discuss items in the log. The program manager also reviews any items that have been added or completed and enters the data in the Federal Transit Reporting website on a log. Each month, after review, the program manager sends an approval letter to the transit agency identifying any changes to the log.

Under the new certification criteria MnRSOP will maintain a tracking database, which identifies all CAPs approved by MnRSOP and proposed by the transit agency and their respective status.

Corrective Action and Hazards			
	2015	2016	2017
Corrective Action Plans	35	45	13
Identified Hazards	5	7	1

On-Site Safety and Security Reviews

In accordance with the FTA's SSO Final Rule (Part 659.29), the Minnesota Rail Safety Oversight Program must, "at least every three years ... conduct an on-site review of the rail transit agency's implementation of its system safety program plan and security & emergency preparedness plan. Alternatively, the on-site review may be conducted in an on-going manner over the three year timeframe."

MnRSOP has utilized an ongoing review process intended to address all 21 safety and security review items within a three-year period. Recent discussions with Metro Transit have led to a triennial review process for a once every three year review. Several of the elements have been completed, with the remainder of the elements scheduled for March 2018. MnRSOP works with Metro Transit to complete the audits in a manner that is most convenient for operational demands.

MnRSOP will conduct on-site assessments and reviews to determine transit system compliance with its own system safety program plan (SSPP) and its security & emergency preparedness plan (SEPP).

MnRSOP's on-site reviews are conducted primarily by contractors who coordinate closely with both the MnRSOP Program Manager and the transit system's managers.

Upon completion of a triennial on-site safety and security review, or a significant portion of that review, MnRSOP will complete a written report, typically transmitted to the transit agency within 30 days after the on-site review. The report contains a summary of the review methodology, persons interviewed, records reviewed, and equipment/operations inspected. Depending on the outcome of the review, the report will also list any findings and observations that MnRSOP has identified.

Findings will include those items where the transit system is not in compliance with its own plans and procedures or with external guidelines with which it is bound to comply. Observations will include all other items, including those review results where MnRSOP has concluded that the transit system could improve its system safety program plan, security & emergency preparedness plan, procedures, or practices.

Internal Audits

MnRSOP also requires the transit agency to develop and document a process for the performance of ongoing internal safety and security audits to assess implementation of the system safety program plan and the security and emergency preparedness plan. The rail transit agency must notify MnRSOP at least 30 days before conducting internal safety and security audits. The transit agency must also provide written checklists for each audit 30 days before on-site audit activity. MnRSOP may request to participate in transit agency internal audits from time to time each year, the transit agency must submit to MnRSOP a report of all safety and security internal audits performed in the previous calendar year. The final written report must be submitted to MnRSOP on or before February 1 of each year. Within 30 days of receipt, MnRSOP will issue a written response either accepting or rejecting the annual RTA safety and security audit report.

If MnRSOP rejects the report, the transit agency will address noted deficiencies and requested changes in the report and submit a revised report to MnRSOP within the timeframe specified by MnRSOP, typically 15 days. MnRSOP, at its discretion, may arrange for a meeting with the transit agency to discuss the noted deficiencies and requested changes. Once approved, a final version of the report must be submitted in an unalterable format with all transit agency approval signatures visible.

The following table shows the triennial audits required by FTA and the year in which the element is scheduled.

SSPP AUDIT ELEMENTS	
1. Policy Statement	2017
2. Goals & Objectives	2017
3. Management Structure	2017
4. SSPP Change Control	2017
5. SSPP Implementation Activities	2017
6. Hazard Management Program & CAPs	2018
7. System Modifications	2018
8. Safety Certification	2018
9. Safety Data	2017
10. Accident Notif., Invest., Rptg.	2018
11. Emergency Management (see also security) (POETE)	2018
12. Internal Safety Reviews	2018
13. Operations, Rule Compliance, Mtc., Checks	2018
14a. Facil. & Equip. Safety Inspections: Structures	2018
14b. Facil. & Equip. Safety Inspections: Stations	2018
14c. Facil. & Equip. Safety Inspections: Maintenance	2018
15a. Maintenance Audits & Insp.: Track	2018
15b. Maintenance Audits & Insp.: Signals	2018
15c. Maintenance Audits & Insp.: Power	2018
15d. Maintenance Audits & Insp.: Vehicles - General (LRV)	2017
15e. Maintenance Audits & Insp.: Vertical Transp.	2018
15f. Maintenance Audits & Insp.: Communications	2018
16a. Employee & Contractor Training: Operations	2018
16b. Employee & Contractor Training: Maintenance	2018
17. Configuration Management	2017
18. Employee & Contractor Safety	2018
19. Hazardous Materials	2017
20. Drug & Alcohol Program	2018
21. Procurement	2017
SEPP Audit Elements	
1: Policies, goals, objectives, chief executive endorsement	2019
2: System Description	2019
3: SEPP Management Activities	2019
4: SEPP Program (Personal Security) A2	2019
5: Threats and vulnerabilities management	2019
6: Implementation of the SEPP	2019
7: SEPP and Accompanying Procedures access for oversight agency	2019
8: Corrective Action Plan (CAP) process	2019
Drills/Exercises	2019