Ohio Department of Transportation (ODOT)
Rail Transit State Safety Oversight (SSO) Program Standard (SSOPS)

Office of Transit
1980 West Broad Street
Columbus, Ohio 43223

January 5, 2017
Version 4.0

Ohio Department of Transportation (ODOT)
Office of Transit – Mission Statement

To accomplish its mission, the Office provides financial and technical assistance to public transit systems, local governments, and human service agencies throughout the state for the planning, establishment, and operation of public transportation systems.

The Office of Transit is comprised of two sections to serve Ohio's transit systems. Program staff members handle primary responsibilities and activities for the Ohio Urban Transportation Grant Program, the Rural Transit Grant Program, the Ohio Elderly and Disabled Transit Fare Assistance Program, the Ohio Coordination Program, the Metropolitan Planning Program, and the State Planning Research Program. Special Projects staff members handle primary responsibilities and activities for Quality Assurance Reviews; development of all office publications; administration of the Ohio Technical Assistance Program; administration of the Rail State Safety and Security Oversight program and sub-recipient and ODOT compliance with federal and state regulations.

Version Tracking

ODOT Safety and Security Oversight Program Standard (SSOPS)

Version	Date	Purpose for Changes
1.0	8/21/2006	Original document
2.0	11/30/2008	Minor editorial changes based on FTA three-year audit
3.0	9/30/2015	Revision for addition of another rail transit agency in the state and to document all risk monitoring and interactions with the rail transit agencies; additions from Moving Ahead for Progress in the 21st Century (MAP-21) legislation and the enhanced safety authority in 49 U.S.C. Section 5329.
4.0	1/5/2017	Re-organization and revision to reflect the requirements of 49 CFR Part 674 instead of 49 CFR Part 659, except that the interim Agency Safety Plan is the Part 659 compliant System Safety Program Plan, including the internal audits requirements. The content of the System Security Plan requirements and internal audits have been removed, and added to the list of minimum standards for safety.

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Signature Pages

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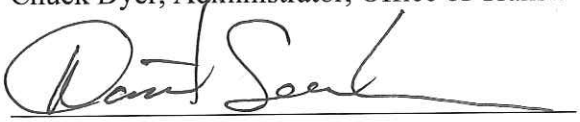

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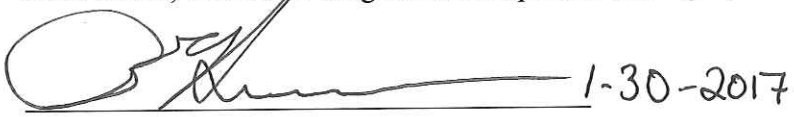

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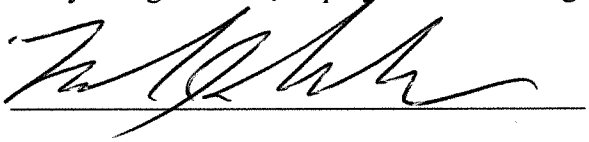

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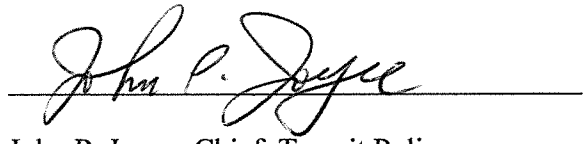

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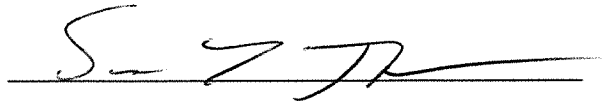

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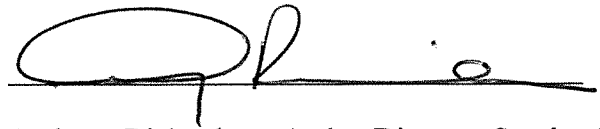

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Table of Contents

Tables

Figures

Appendices

Definitions

These definitions are only those provided in 49 CFR Part 674.7.

- ***Accident*** means an Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision involving a rail transit vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause. An accident must be reported in accordance with the thresholds for notification and reporting set forth in Appendix A to this part.
- ***Accountable Executive*** means a single, identifiable individual who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.
- ***Administrator*** means the Federal Transit Administrator or the Administrator's designee.
- ***Contractor*** means an entity that performs tasks on behalf of FTA, a State Safety Oversight Agency, or a Rail Transit Agency, through contract or other agreement.
- ***Corrective action plan*** means a plan developed by a Rail Transit Agency that describes the actions the Rail Transit Agency will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a State Safety Oversight Agency or FTA may require a Rail Transit Agency to develop and carry out a corrective action plan.
- ***Event*** means an Accident, Incident or Occurrence.
- ***FRA*** means the Federal Railroad Administration, an agency within the United States Department of Transportation.
- ***FTA*** means the Federal Transit Administration, an agency within the United States Department of Transportation.
- ***Hazard*** means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a rail fixed guideway public transportation system; or damage to the environment.
- ***Incident*** means an event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a rail transit agency. An incident must be reported to FTA's National Transit Database in accordance with the thresholds for reporting set forth in Appendix A to this part. If a rail transit agency or State Safety Oversight Agency later determines that an Incident meets the definition of Accident in this section, that event must be reported to the SSOA in accordance with the thresholds for notification and reporting set forth in Appendix A to this part.

- ***Investigation*** means the process of determining the causal and contributing factors of an accident, incident, or hazard, for the purpose of preventing recurrence and mitigating risk.
- ***National Public Transportation Safety Plan*** means the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.
- ***NTSB*** means the National Transportation Safety Board, an independent Federal agency.
- ***Occurrence*** means an Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a rail transit agency.
- ***Person*** means a passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.
- ***Public Transportation Agency Safety Plan*** **(PTASP)** means the comprehensive agency safety plan for a transit agency, including a Rail Transit Agency, that is required by 49 U.S.C. 5329(d) and based on a Safety Management System. Until one year after the effective date of FTA's PTASP final rule, a System Safety Program Plan (SSPP) developed pursuant to 49 CFR part 659 will serve as the rail transit agency's safety plan.
- ***Public Transportation Safety Certification Training Program*** means either the certification training program for Federal and State employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight, established through interim provisions in accordance with 49 U.S.C. 5329(c)(2), or the program authorized by 49 U.S.C. 5329(c)(1).
- ***Rail fixed guideway public transportation system*** means any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. Rail fixed guideway public transportation systems include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.
- ***Rail Transit Agency (RTA)*** means any entity that provides services on a rail fixed guideway public transportation system.
- ***Risk*** means the composite of predicted severity and likelihood of the potential effect of a hazard.
- ***Risk mitigation*** means a method or methods to eliminate or reduce the effects of hazards.
- ***Safety risk management*** means a process within a Rail Transit Agency's Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.
- ***Serious injury*** means any injury which:
  (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received;
  (2) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
  (3) Causes severe hemorrhages, nerve, muscle, or tendon damage;

(4) Involves any internal organ; or
(5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

- ***State*** means a State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.
- ***State Safety Oversight Agency (SSOA)*** means an agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and the regulations set forth in this part.
- ***Vehicle*** means any rolling stock used on a rail fixed guideway public transportation system, including but not limited to passenger and maintenance vehicles.

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Acronyms and Abbreviations

ALARP	-	as low as reasonably practicable
APTA	-	American Public Transportation Association
AREMA	-	American of Railway Engineering and Maintenance of Way Association
ASP	-	agency safety plan
CAP	-	corrective action plan
CFR	-	Code of Federal Regulations
CMP	-	configuration management plan
COI	-	conflict of interest
CPG	-	comprehensive preparedness guide
CSO	-	chief safety officer
CWP	-	certification work plan
EOP	-	emergency operations plan
FAST	-	Fixing America's Surface Transportation Act
FEMA	-	Federal Emergency Management Agency
FRA	-	Federal Railroad Administration
FTA	-	Federal Transit Administration
FTE	-	full time equivalent
GCRTA	-	Greater Cleveland Regional Transit Authority
HMP	-	hazard management plan or program
I&M	-	inspection and maintenance
IFR	-	interim final rule
IGA	-	intergovernmental agreement
MAP-21	-	Moving Ahead for Progress in the 21st Century
N/A	-	not applicable
NFPA	-	National Fire Protection Association
NPRM	-	notice for proposed rulemaking
NTD	-	National Transit Database
NTSB	-	National Transportation Safety Board
O&M	-	operations and maintenance
OCS	-	overhead catenary or contact system
ODOT	-	Ohio Department of Transportation
ORC	-	Ohio Revised Code
OSHA	-	Occupational Safety and Health Administration
PTASP	-	public transportation agency safety plan

RFGPTS	-	rail fixed guideway public transportation system
RFGS	-	rail fixed guideway system
RORB	-	rail operations rule book
ROW	-	right of way
RTA	-	rail transit agency
RWP	-	right-of-way or roadway worker protection
SA	-	safety assurance
SEPP	-	security and emergency preparedness plan
SGR	-	state of good repair
SMS	-	safety management system
SOP	-	standard operating procedure
SORTA	-	Southwest Ohio Regional Transit Authority
SRM	-	safety risk management
SSCP	-	safety and security certification plan
SSO	-	state safety oversight
SSOA	-	state safety oversight agency
SSOPS	-	state safety oversight program standard
SSP	-	system security plan
SSPP	-	system safety program plan
TAM	-	transit asset management
TASP	-	transit agency safety plan
TMC	-	Traffic Management Center
TOC	-	Tri-state Oversight Committee
TSA	-	Transportation Security Administration
TSO	-	Office of Safety and Oversight
TTP	-	technical training plan
U.S.C.	-	United States Code
WMATA	-	Washington Metropolitan Area Transit Authority

Introduction/Background

This document serves as the Program Standard for the Ohio Department of Transportation (ODOT) Rail Transit State Safety Oversight (SSO) program (ODOT SSO program). This ODOT program is required by the Federal Transit Administration (FTA) and applies to rail transit agencies (RTAs) not regulated by the Federal Railroad Administration (FRA) in the State of Ohio. The authorization for FTA's and ODOT's SSO programs was initially in 49 U.S.C. Section 5330 (State Safety Oversight). FTA published their state safety oversight rule, Rail Fixed Guideway Systems; State Safety Oversight; Final Rule, on December 27, 1995, codified as 49 CFR Part 659. On April 29, 2005, the FTA published a revised version of 49 CFR Part 659.

In 2012 as part of Moving Ahead for Progress in the 21st Century (MAP-21), the FTA safety programs were changed with significantly higher expectations and responsibilities for safety oversight and safety performance for the FTA, states, and the transit agencies (for all modes, not just rail), authorized as 49 U.S.C. Section 5329, shown in Appendix A. The new FTA safety programs are in the process of being developed to follow a transit-specific safety management system (SMS) that will be the basis of these changes to the transit safety programs.

- *Safety Management Systems: Getting Ready*, https://www.transit.dot.gov/oversight-policy-areas/safety-management-systems-getting-ready

The MAP-21 version of FTA's safety programs currently include the following activities and rulemakings:

- **Safety Certification Training Program** – this program requires safety-related training for specific FTA, SSO, and RTA staff responsible for safety and oversight. Currently, this program is in regulation as an Interim Final Rule (IFR) and a notice for proposed rulemaking (NPRM) that is in process for a Final Rule as 49 CFR Part 672, expected by early 2017.
- **National Safety Plan** – A proposed National Public Transportation Safety Plan was released by FTA in the Federal Register in February 2016, and introduces the use of the transit-specific SMS framework, safety performance management, and concepts of managing risks and assuring safety performance at transit agencies that are proactive and based on SMS. This plan has also introduced the FTA's intended requirements for safety performance criteria that the transit agencies will be required to base their safety performance measures and targets on for improvements documented in their Agency Safety Plans.
- **Agency Safety Plan** – the FTA intends to require the use of the transit-specific SMS framework through the Public Transportation Agency Safety Plan, which has been released in NPRM in February 2016. As of the completion of this SSOPS, the Final Rule to be 49 CFR Part 673 has not yet been released.
- **Public Transportation Safety Program** – the FTA has completed rulemaking that establishes their procedural rules for administration of the comprehensive safety program to improve safety at transit agencies and states, published as a Final Rule in August 2016 as 49 CFR Part 670. This includes their authority to take over audits and inspections for

an SSOA, such as the Tri-state Oversight Committee (TOC) and their safety oversight of the Washington Metropolitan Area Transit Authority (WMATA).

- **Transit Asset Management** – the FTA has completed rulemaking in July 2016 for their Transit Asset Management (TAM) processes that include state of good repair (SGR) and data collection, prioritization, and data delivery to the National Transit Database (NTD). The TAM final rule is 49 CFR Part 625 and changes made for TAM in the NTD requirements are in final rule as 49 CFR Part 630.
- **State Safety Oversight** – the FTA has completed rulemaking in March 2016 for a new SSO regulation as 49 CFR Part 674 based on 49 U.S.C. Section 5329 instead of Section 5330. This new regulation for SSO went into effect on April 15, 2016 and states have three years to complete development and have approval from FTA through a certification process for their Part 674 compliant SSO program. After this three-year period, the current SSO regulation, 49 CFR Part 659, will be repealed along with its authorization, Section 5330.

This version of the ODOT Rail Transit State Safety Oversight (SSO) Program Standard (SSOPS) is based mostly on 49 CFR Part 674 in anticipation of being certified by the FTA in early 2017. However, aspects of Part 659 are included to address the interim Agency Safety Plan (currently the System Safety Program Plan) as well as notification and reporting are focused on Part 674, but also include Part 659 until those reporting criteria can be removed as requirements.

FTA's authorization for the above safety program activities was further modified by new surface transportation legislation, Fixing America's Surface Transportation (FAST) Act. Some clarifications and modifications were made by Congress based on experience from the multiple rulemakings and comments received from the transit industry. In addition, the FAST Act introduced a new activity for FTA to address development of appropriate and required minimum safety standards for the transit industry, for those areas where other Federal standards do not already apply. FTA has started this process by including it in the National Safety Plan and through a Transit Safety Standards Compendium available at https://www.transit.dot.gov/regulations-and-guidance/safety/transit-safety-standards.

Transition to the New SSO Rule (Part 674)

The new SSO rule was authorized in 49 U.S.C. 5329(e) and is applicable to States with rail fixed guideway public transportation systems (RFGPTS), SSO agencies, and the entities that operate RFGPTS and receive financial assistance from FTA, as indicated in the purpose, applicability, and policy from Part 674, shown in the text box. Note that in this SSOPS the terms RFGPTS (used in Part 674), RFGS (used in Part 659), and RTA are used interchangeably meaning a rail transit system that is under the jurisdiction of a SSO agency, and specifically the ODOT SSO program.

49 CFR §674.1 Purpose
This part carries out the mandate of 49 U.S.C. 5329(e) for State safety oversight of rail fixed guideway public transportation systems.

49 CFR §674.3 Applicability
This part applies to States with rail fixed guideway public transportation systems; State safety oversight agencies that oversee the safety of rail fixed guideway public transportation systems; and entities that own or operate rail fixed guideway public transportation systems with Federal financial assistance authorized under 49 U.S.C. Chapter 53.

49 CFR §674.5 Policy
(a) In accordance with 49 U.S.C. 5329(e), a State that has a rail fixed guideway public transportation system within the State has primary responsibility for overseeing the safety of that rail fixed guideway public transportation system. A State safety oversight agency must have sufficient authority, resources, and qualified personnel to oversee the number, size and complexity of rail fixed guideway public transportation systems that operate within a State.
(b) FTA will make Federal financial assistance available to help an eligible State develop or carry out its State safety oversight program. Also, FTA will certify whether a State safety oversight program meets the requirements of 49 U.S.C. 5329(e) and is adequate to promote the purposes of the public transportation safety programs codified at 49 U.S.C. 5329.

In October 2016, the FTA indicated to the ODOT SSO program that in order to be certified to the new SSO regulation (Part 674), this SSOPS would need to be developed as a Part 674 compliant program standard, and those changes are now in this document. There are a couple of issues that need to be addressed in making this change to the new SSO regulation. These three issues will be further discussed and addressed in Section 4.

1. The **Agency Safety Plan regulation is not yet a Final Rule**, and it may take several years before the RTAs have a compliant Agency Safety Plan that includes the implementation of their SMS activities. The FTA has regulated (in 49 CFR Part 674.9) that the current System Safety Program Plan (SSPP) compliant with Part 659 will serve as the interim Agency Safety Plan until the Final Rule and the processes supporting the new Agency Safety Plan are fully in effect and working.
2. The Agency Safety Plan is required to now be approved by the RTA Board of Directors (or equivalent). This will mean that **the interim Agency Safety Plan (the SSPP) for calendar year 2017 (and beyond) must be approved by the RTA Board of Directors (or equivalent)**. This will be accomplished for 2017 with each RTA on a schedule agreed to by the RTA and the ODOT SSO program (the current expectation is January 31st). This process will continue with the new Agency Safety Plan as soon as it is fully in effect and working or as required by FTA.
3. An **adequately trained Chief Safety Officer (CSO)** is required to be designated and that position must report to the Accountable Executive (general manager, chief executive officer, or equivalent) at the RTA. **The criteria/requirements for "adequately trained" will be defined in this SSOPS for the ODOT SSO program** until the FTA provides formal and specific guidance on this topic. FTA indicated in October 2016 that this was an acceptable approach.

49 CFR §674.9 Transition from previous requirements for State safety oversight

(a) Pursuant to section 20030(e) of the Moving Ahead for Progress in the 21st Century Act (Pub. L. 112–141; July 6, 2012) (''MAP–21''), the statute now codified at 49 U.S.C. 5330, titled ''State safety oversight,'' will be repealed three years after the effective date of the regulations set forth in this part.

(b) No later than three years after the effective date of the regulations set forth in this part, the regulations now codified at part 659 of this chapter will be rescinded.

(c) A System Safety Program Plan (SSPP) developed pursuant to 49 CFR part 659 shall serve as the rail transit agency's safety plan until one year after the effective date of the Public Transportation Agency Safety Plan final rule, which will be codified in part 673 of this chapter.

Organization of this Program Standard

As required in Part 674.27, this SSOPS is consistent with the National Public Transportation Safety Plan and the expected regulation for the Public Transportation Agency Safety Plans. Currently, the System Safety Program Plans (SSPPs) will be the interim Agency Safety Plans as allowed in Part 674.9, as we transition to FTA's new safety programs and the transit-specific SMS. This SSOPS is adopted and provides the all hazards processes and procedures used by the ODOT SSO program to implement safety oversight of the Ohio RTAs. This SSOPS also provides the expectations and requirements of the ODOT SSO program for the Ohio RTA's safety programs as allowed and required by federal and state regulation/law.

49 CFR §674.27(a) – State safety oversight program standards

An SSOA must adopt and distribute a written SSO program standard, consistent with the National Public Transportation Safety Plan and the rules for Public Transportation Agency Safety Plans. This SSO program standard must identify the processes and procedures that govern the activities of the SSOA. Also, the SSO program standard must identify the processes and procedures an RTA must have in place to comply with the standard.

This SSOPS follows the required nine sections for program standards as defined in Part 674.27, as well as introductory and background sections, along with several appendices and procedures. Note that all aspects of this SSOPS are requirements for the ODOT SSO program and the Ohio RTAs.

- Section 1. Program Management
- Section 2. Program Standard Development
- Section 3. Program Policy and Objectives
- Section 4. Oversight of Rail Public Transportation Agency Safety Plans and Transit Agencies' Internal Safety Reviews
- Section 5. Triennial SSOA Audits of Rail Public Transportation Agency Safety Plans
- Section 6. Accident Notification
- Section 7. Investigations
- Section 8. Corrective Actions
- Section 9. Annual Reporting to FTA

Table 1 shows a cross-walk of where each section of Part 674 is covered in this ODOT SSO Program SSOPS.

Table 1. Cross-Walk Matrix FTA SSO Rule to this SSOPS

FTA State Safety Oversight Final Rule (49 CFR Part 674), March 16, 2016	Corresponding Section in this SSOPS
Subpart A – General Provisions	
§ 674.1 Purpose	Introduction/Background
§ 674.3 Applicability	Introduction/Background
§ 674.5 Policy	Introduction/Background
§ 674.7 Definitions	Definitions
§ 674.9 Transition from previous requirements for State safety oversight	Introduction/Background
Subpart B – Role of the State	
§ 674.11 State safety oversight program	New SSO Program
§ 674.13 Designation of the oversight agency	New SSO Program Waiver process not applicable
§ 674.15 Designation of oversight agency for multi-state system	Not applicable
§ 674.17 Use of Federal financial assistance	New SSO Program
§ 674.19 Certification of a State Safety Oversight Program	New SSO Program
§ 674.21 Withholding of Federal financial assistance for noncompliance	New SSO Program
§ 674.23 Confidentiality of Information	Section 1
Subpart C – State Safety Oversight Agencies	
§ 674.25 Role of the State safety oversight agency	New SSO Program Sections 1, 2, 4, and 7
§ 674.27 State safety oversight program standards	Introduction/Background Sections 1-8
§ 674.29 Public Transportation Agency Safety Plans: general requirements	Section 4
§ 674.31 Triennial audits: general requirements	Section 5
§ 674.33 Notifications of accidents	Section 6
§ 674.35 Investigations	Section 7
§ 674.37 Corrective action plans	Section 8
§ 674.39 State Safety Oversight Agency annual reporting to FTA	Section 9
§ 674.41 Conflicts of interest	Section 1

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Requirements of the New State Safety Oversight Program

The ODOT SSO program must be certified compliant to Part 674 by FTA on or before April 15, 2019. The general requirements for SSO programs are provided in Part 674.11 and the ODOT SSO program responses to these requirements are in state law, Ohio Revised Code (ORC) 5501.55 and 5501.56, and both ORC sections are in Appendix B. The only item not yet in the ORC is the last item, (f), and an additional sentence has been requested to be added in the next budget cycle, planned effective 7/1/2017. In the meantime, this SSOPS by policy prohibits the ODOT SSO program from receiving funds from the Ohio RTAs.

49 CFR §674.11 State safety oversight program
Within three years of April 15, 2016, every State that has a rail fixed guideway public transportation system must have a State Safety Oversight (SSO) program that has been approved by the Administrator. FTA will audit each State's compliance at least triennially, consistent with 49 U.S.C. 5329(e)(9). At minimum, an SSO program must:

(a) Explicitly acknowledge the State's responsibility for overseeing the safety of the rail fixed guideway public transportation systems within the State;
(b) Demonstrate the State's ability to adopt and enforce Federal and relevant State law for safety in rail fixed guideway public transportation systems;
(c) Establish a State safety oversight agency, by State law, in accordance with the requirements of 49 U.S.C. 5329(e) and this part;
(d) Demonstrate that the State has determined an appropriate staffing level for the State safety oversight agency commensurate with the number, size, and complexity of the rail fixed guideway public transportation systems in the State, and that the State has consulted with the Administrator for that purpose;
(e) Demonstrate that the employees and other personnel of the State safety oversight agency who are responsible for the oversight of rail fixed guideway public transportation systems are qualified to perform their functions, based on appropriate training, including substantial progress toward or completion of the Public Transportation Safety Certification Training Program; and
(f) Demonstrate that by law, the State prohibits any public transportation agency in the State from providing funds to the SSOA.

Designation of the Oversight Agency

The State of Ohio is required to establish a State Safety Oversight (SSO) program for RTAs in the state. As required by FTA, ODOT was re-designated the SSO agency by the Governor on November 12, 2014, and that letter is included at the end of Appendix B. All the requirements from Part 674.13 as shown in the following text box are also addressed in the ORC and this SSOPS.

49 CFR §674.13 Designation of oversight agency
(a) Every State that must establish a State Safety Oversight program in accordance with 49 U.S.C. 5329(e) must also establish a SSOA for the purpose of overseeing the safety of rail fixed guideway public transportation systems within that State. Further, the State must ensure that:

(1) The SSOA is financially and legally independent from any public transportation agency the SSOA is obliged to oversee;
(2) The SSOA does not directly provide public transportation services in an area with a rail fixed guideway public transportation system the SSOA is obliged to oversee;
(3) The SSOA does not employ any individual who is also responsible for administering a rail fixed guideway public transportation system the SSOA is obliged to oversee;
(4) The SSOA has authority to review, approve, oversee, and enforce the public transportation agency safety plan for a rail fixed guideway public transportation system required by 49 U.S.C. 5329(d);
(5) The SSOA has investigative and enforcement authority with respect to the safety of all rail fixed guideway public transportation systems within the State;
(6) At least once every three years, the SSOA audits every rail fixed guideway public transportation system's compliance with the public transportation agency safety plan required by 49 U.S.C. 5329(d); and
(7) At least once a year, the SSOA reports the status of the safety of each rail fixed guideway public transportation system to the Governor, the FTA, and the board of directors, or equivalent entity, of the rail fixed guideway public transportation system.

Certification of a State Safety Oversight Program

The conversion of this SSO program to the new regulation (Part 674) is nearly complete, awaiting the Final Rule and full conversion to the Agency Safety Plan and SMS at each RTA; however, all required processes and activities are currently in place, as documented in this SSOPS. Starting in 2013, FTA developed their self-assessment for state certification and a Certification Work Plan (CWP) for each SSO program that was not pre-certified compliant to what has now become Part 674. Only two state programs were pre-certified – California and Massachusetts.

The ODOT SSO program has worked through its CWP assignments, and completed all the deliverables for certification in early 2016; however, in July 2016, FTA provided a more detailed draft Certification Toolkit that now requires 31 topics/sub-topics to be addressed by providing programmatic evidence in order to be considered for Certification to Part 674. FTA's Certification Toolkit is based on Part 674.19 and other applicable requirements in Part 674. The high-level topics in the draft Certification Toolkit are the following:

- SSO Agency Independence (6 sub-topics)
- General Program Requirements (5 sub-topics)
- Enforcement Authority (5 sub-topics)
- Investigations and Audits (6 sub-topics)
- Staffing and Qualification of SSO Personnel and Contractors (3 sub-topics)
- Grants and Waivers (3 sub-topics)
- Program Standard (1 topic)
- Agency Safety Plan (1 topic)
- Major Oversight Activities (1 topic)

49 CFR §674.19 Certification of a State safety oversight program

(a) The Administrator must determine whether a State's SSO program meets the requirements of 49 U.S.C. 5329(e). Also, the Administrator must determine whether a SSO program is adequate to promote the purposes of 49 U.S.C. 5329, including, but not limited to, the National Public Transportation Safety Plan, the Public Transportation Safety Certification Training Program, and the Public Transportation Agency Safety Plans.

(b) The Administrator must issue a certification to a State whose SSO program meets the requirements of 49 U.S.C. 5329(e). The Administrator must issue a denial of certification to a State whose SSO program does not meet the requirements of 49 U.S.C. 5329(e).

(c) In an instance in which the Administrator issues a denial of certification to a State whose SSO program does not meet the requirements of 49 U.S.C. 5329(e), the Administrator must provide a written explanation, and allow the State an opportunity to modify and resubmit its SSO program for the Administrator's approval. In the event the State is unable to modify its SSO program to merit the Administrator's issuance of a certification, the Administrator must notify the Governor of that fact, and must ask the Governor to take all possible actions to correct the deficiencies that are precluding the issuance of a certification for the SSO program. In his or her discretion, the Administrator may also impose financial penalties as authorized by 49 U.S.C. 5329(e), which may include:

    (1) Withholding SSO grant funds from the State;
    (2) Withholding up to five percent of the 49 U.S.C. 5307 Urbanized Area formula funds appropriated for use in the State or urbanized area in the State, until such time as the SSO program can be certified; or
    (3) Requiring all rail fixed guideway public transportation systems governed by the SSO program to spend up to 100 percent of their Federal funding under 49 U.S.C. chapter 53 only for safety-related improvements on their systems, until such time as the SSO program can be certified.

(d) In making a determination whether to issue a certification or a denial of certification for a SSO program, the Administrator must evaluate whether the cognizant SSOA has sufficient authority, resources, and expertise to oversee the number, size, and complexity of the rail fixed guideway public transportation systems that operate within the State, or will attain the necessary authority, resources, and expertise in accordance with a developmental plan and schedule set forth to a sufficient level of detail in the SSO program.

The ODOT SSO program completed submission of all 31 topics/sub-topics of this draft Certification Toolkit over several days ending on September 7, 2016. However, in October 2016, FTA indicated that the ODOT SSO program could not be considered for Certification until this new SSOPS, compliant to Part 674, was completed. With the completion of this new SSOPS compliant with Part 674 and when FTA finalizes their Certification Toolkit, the ODOT SSO program will then formally request Certification to Part 674, expected to be in January 2017.

Grant Funding and the Part 674 SSO Program

Since its inception, the FTA SSO program has been an unfunded mandate/requirement for states. Enforcement of this mandate/requirement has been based on FTA's authority to withhold up to 5% of the state's annual urbanized transit agency grant funding (these grants are described in 49 U.S.C. Section 5307) for states that are not compliant with the FTA SSO program requirements. However, the unfunded mandate has changed with MAP-21, continuing into the FAST Act. MAP-21 and FAST Act enhance FTA's safety program responsibilities and authority, but also provides funding for the SSOAs at an 80% federal to 20% state match.

Part 674.17 describes FTA's grant funding and the apportionment strategy used to allocate available grant funding for the state SSO programs. Part 674.21 describes FTA's authority to withhold this grant funding for noncompliance of the state SSO program as well as a state's loss of all transit grant funding if the Part 674 compliant SSO program is not in place and certified or making acceptable progress towards certification by the end of the three-year transition period.

49 CFR §674.17 Use of Federal financial assistance

(a) In accordance with 49 U.S.C. 5329(e)(6), FTA will make grants of Federal financial assistance to eligible States to help the States develop and carry out their SSO programs. This Federal financial assistance may be used for reimbursement of both the operational and administrative expenses of SSO programs, consistent with the uniform administrative requirements for grants to States under 2 CFR parts 200 and 1201. The expenses eligible for reimbursement include, specifically, the expense of employee training and the expense of establishing and maintaining a SSOA in compliance with 49 U.S.C. 5329(e)(4).

(b) The apportionments of available Federal financial assistance to eligible States will be made in accordance with a formula, established by the Administrator, following opportunity for public notice and comment. The formula will take into account fixed guideway vehicle revenue miles, fixed guideway route miles, and fixed guideway vehicle passenger miles attributable to all rail fixed guideway systems within each eligible State not subject to the jurisdiction of the FRA.

(c) The grants of Federal financial assistance for State safety oversight shall be subject to terms and conditions as the Administrator deems appropriate.

(d) The Federal share of the expenses eligible for reimbursement under a grant for State safety oversight activities shall be eighty percent of the reasonable costs incurred under that grant.

(e) The non-Federal share of the expenses eligible for reimbursement under a grant for State safety oversight activities may not be comprised of Federal funds, any funds received from a public transportation agency, or any revenues earned by a public transportation agency.

49 CFR §674.21 Withholding of Federal financial assistance for noncompliance

(a) In making a decision to impose financial penalties as authorized by 49 U.S.C. 5329(e), and determining the nature and amount of the financial penalties, the Administrator shall consider the extent and circumstances of the noncompliance; the operating budgets of the SSOA and the rail fixed guideway public transportation systems that will be affected by the financial penalties; and such other matters as justice may require.

(b) If a State fails to establish a SSO program that has been approved by the Administrator within three years of the effective date of this part, FTA will be prohibited from obligating Federal financial assistance apportioned under 49 U.S.C. 5338 to any entity in the State that is otherwise eligible to receive that Federal financial assistance, in accordance with 49 U.S.C. 5329(e)(3).

Table 2 summarizes the ODOT SSO program grant funding from FTA and the 20% state match for fiscal years 2013 through 2016.

Table 2. SSO Program Grant Funding Allocations for Ohio

Fiscal Year	Federal (80%)	State (20%)	Total
2013	543,716	135,929	679,645
2014	551,163	137,791	688,954
2015	548,950	137,237	686,187
2016	554,692	138,673	693,365

ODOT SSO Program Staff and Responsibilities

The ODOT SSO Team includes ODOT Office of Transit and contractor staff. This program is designed with the contractor staff serving as an extension of the Office of Transit staff. For interactions with RTAs and the FTA, the contractor staff report to the ODOT SSO Program Manager for anything that requires ODOT approval and act on behalf of the ODOT SSO program based on this SSOPS, as well as state and federal law/regulation.

> **49 CFR §674.25 Role of the State safety oversight agency**
> (e) An SSOA may enter into an agreement with a contractor for assistance in overseeing accident investigations; performing independent accident investigations; and reviewing incidents and occurrences; and for expertise the SSOA does not have within its own organization.
> (f) All personnel and contractors employed by an SSOA must comply with the requirements of the Public Transportation Safety Certification Training Program as applicable.

The ODOT SSO Program is staffed with between 2.5 and 3 full time equivalent (FTE) staff plus travel costs to each of the RTA sites and required training and FTA meetings. As mentioned earlier, FTA has requirements for training of SSO staff in their Safety Certification Training Program interim final rule (IFR). The ODOT SSO program has a Training Plan that describes requirements and tracks progress of ODOT and contractor staff towards completing the Training Plan including those for the Technical Training Plan (TTP) that is coordinated with each of the Ohio RTAs. The TTP also addresses access to any rail expertise needed by the ODOT SSO program to complete investigations, inspections, and/or audits at the Ohio RTAs. The current ODOT SSO program Training Plan is available in Appendix C.

Responsibilities of the ODOT SSO program include:

- Requiring RTAs to develop an Agency Safety Plan (ASP) that complies with ODOT's SSOPS and federal regulation.
- Requiring RTAs to develop and follow minimum safety standards based on an all hazards approach for operations, command and control, and maintenance of the rail systems.
- Requiring RTAs to develop, document, and administer a process for performing internal safety program audits and for submitting checklists and procedures to the ODOT SSO program for review and potential participation in the actual audits.
- Conducting on-site audits of the RTAs' safety program under the ODOT SSO program jurisdiction at least once every three (3) years to assess the RTA's implementation of its safety programs based on the ASP. At the conclusion of the review, the ODOT SSO program prepares and issues a report containing findings and recommendations, which, at

a minimum, include an analysis of the effectiveness and accuracy of the ASP and a determination of whether or not it should be updated.

- Requiring RTAs to notify the ODOT SSO program (and FTA) within a required timeframe of any reportable event or significant hazard, as defined in the SSOPS.
- Requiring RTAs that share track with the general railroad system and are subject to FRA notification requirements, to notify the ODOT SSO program (and FTA) within the time for which the RTA must notify the FRA.
- Investigating, or causing to be investigated, at a minimum, any reportable event or significant hazard as defined in the SSOPS.
- Requiring RTAs to develop corrective action plans (CAPs) for results from investigations (performed by NTSB [National Transportation Safety Board], FTA, ODOT SSO, or RTA), in which identified causal factors and findings are determined by the RTA or the ODOT SSO program as requiring corrective actions; and for findings and recommendations from safety program audits performed by the RTA, the ODOT SSO program, the FTA, or other external audits/investigations.
- Tracking progress and evidence of resolving CAPs and monitoring identified safety risks at the RTAs on a regular basis with monthly status reports and quarterly on-site meetings, as well as other visits to the RTA.
- Providing required and requested information, data, and reports to FTA.
- Participating in capital projects related to rail transit and safety program aspects of the project including design through safety and security certification and successful transition from the project to revenue operations and maintenance. This specifically includes ODOT SSO program participation in extension and new rail transit system capital projects, as well as major purchases/contracting for the rail systems, such as purchasing new or major refurbishment of rail vehicles or significant upgrades to rail stations.

FTA Triennial Audit of ODOT SSO Program

The FTA SSO program is required in Section 5329(e)(10)(B) to complete an audit of each state's SSO program at least every three years to assure compliance to Part 674 and Section 5329(e). During these triennial audits of the ODOT SSO program, the FTA SSO program staff request a tremendous number of documents and amount of information ahead of the on-site activities, which typically occur at one of the RTAs. The ODOT SSO program staff will work directly with the RTAs and the FTA SSO program staff to schedule and coordinate the on-site portion(s) of the FTA audit and the interviews and inspections that might be completed with RTA staff and on RTA property. The ODOT SSO program intends to negotiate on behalf of the state and the RTAs (with consultation) for all findings and recommendations documented in FTA's audit report, and work with the RTAs to develop and approve corrective actions to be tracked to completion, as needed.

Section 1. Program Management

The Program Management section of this SSOPS has been defined in Part 674.27(a)(1), and broken down into four general topics:

- SSO Agency Authority to oversee the RTA safety program and related activities
- SSO Agency Policies that govern safety oversight activities
- SSO Agency and RTA Reporting and data collection requirements
- SSO Agency and RTA Communication and Coordination

> **49 CFR §674.27(a)(1) – State safety oversight program standards**
> *Program management.* The SSO program standard must explain the authority of the SSOA to oversee the safety of rail fixed guideway public transportation systems; the policies that govern the activities of the SSOA; the reporting requirements that govern both the SSOA and the rail fixed guideway public transportation systems; and the steps the SSOA will take to ensure open, on-going communication between the SSOA and every rail fixed guideway public transportation system within its oversight.

SSO Agency Authority

The FTA/federal expectations of the ODOT SSO program have been defined in the following regulatory sections: 674.11, 674.13, and 674.25. FTA has indicated that the ODOT SSO program must have the authority to implement this Program Standard and other program elements sufficient to:

- Promulgate and enforce State rules and regulation, including establishing enforcement and investigative authorities
- Enforce Federal rules and regulation
- Establish and carry out legal and financial obligations independent of the RTAs in the state
- Hire and develop staff and contract support, as needed and required
- Manage Federal and State grant programs
- Implement a robust and active oversight program sufficient to meet the safety oversight needs of the RTAs in the state.

The FTA requirements and much of these authorities have been presented in the previous section of this SSOPS. The Ohio Revised Code (ORC) 5501.55 addresses these requirements for the ODOT SSO program, and is provided in the following text box as well as in Appendix B. The "guidelines" mentioned in the ORC are addressed by this SSOPS, including multiple appendices and procedures.

Ohio Revised Code (ORC) 5501.55

(A) The department of transportation is the designated state agency responsible for overseeing the safety practices of rail fixed guideway systems and the administration of 49 U.S.C. 5329 and 5330. The director of transportation shall develop any guidelines necessary to oversee the safety practices of rail fixed guideway systems that are consistent with the federal act and rules adopted thereunder.

(B) In accordance with guidelines developed by the director, the department shall do all of the following:

(1) Establish a safety program documentation standard for transit agencies operating, implementing, or significantly enhancing an applicable rail fixed guideway system within the state;

(2) Oversee adoption of standards and oversee enforcement of laws for the personal safety and security of passengers and employees of rail fixed guideway systems;

(3) Review and approve or disapprove the annual internal safety audit conducted by a transit agency under section 5501.56 of the Revised Code;

(4) Periodically, conduct an on-site safety review of each transit agency safety program based on the agency's safety program documentation and make recommendations for changes or enhancements to the transit agency safety program;

(5)

(a) Establish procedures for the investigation of accidents and hazardous conditions, and for coordinating and addressing immediate conditions at a transit agency, as defined in the guidelines developed by the director;

(b) Investigate accidents and hazardous conditions at transit agencies;

(c) Approve or disapprove any corrective action plan of a transit agency intended to minimize, control, correct, or eliminate any investigated hazard;

(d) Enforce the correction of identified hazardous conditions and plans to minimize, control, correct, or eliminate those identified hazardous conditions in a timely manner agreed upon within corrective action plans.

(6) Submit to the federal transit administration any reports or other information necessary to remain in compliance with 49 U.S.C. 5329 and 5330 and the rules adopted thereunder;

(7) Approve or disapprove, oversee, and enforce the development, updating, and implementation of the transit agency's public transportation safety plan as defined and required by the federal transit administration.

(C) The department may use a contractor to act on its behalf in carrying out the duties of the department under this section and section 5501.56 of the Revised Code and 49 U.S.C. 5329 and 5330 and the rules adopted thereunder.

(E) In accordance with the guidelines developed by the director, the department may establish such programs, procedures, and administrative mandates as may be necessary to carry out its duties under this section and section 5501.56 of the Revised Code and 49 U.S.C. 5329 and 5330 and the rules adopted thereunder.

The rail systems and Ohio RTAs (including all parties listed here) that are a part of the ODOT SSO program are the following:

- The Greater Cleveland Regional Transit Authority (GCRTA) light and heavy rail systems.
- The Southwest Ohio Regional Transit Authority (SORTA) streetcar rail system. This rail system is owned by the City of Cincinnati and operated (and maintained) by SORTA through an intergovernmental agreement (IGA). In addition, SORTA has contracted out the operation and maintenance of the Cincinnati Bell Connector streetcar system, and those contracted services are also subject to the SSO program.

The ODOT SSO program includes safety oversight of any rail system capital project related to these two RTAs or any new rail transit system capital project planned and/or built with any FTA funding and not on the general freight rail system/under the jurisdiction of the Federal Railroad Administration (FRA).

ORC Section 5501.56 addresses the expectations of each of the Ohio RTAs that are a part of the ODOT SSO program.

Ohio Revised Code (ORC) 5501.56

(A) Each transit agency shall do all of the following:

(1) Develop a system safety program documentation that complies with the safety program documentation standards adopted by the department of transportation under section 5501.55 of the Revised Code and includes standards and laws for the personal safety and security of passengers and employees;

(2) Conduct an annual internal safety audit and submit the audit to the department for input and approval;

(3) Report accidents and hazardous conditions, as defined in the guidelines developed by the director of transportation under section 5501.55 of the Revised Code, to the department within a time period specified by the department;

(4) Minimize, control, correct, or eliminate any identified and investigated hazardous condition within a time period specified by the department and in accordance with a plan approved by the department;

(5) Provide all necessary assistance to the department as required to allow the department to conduct or participate in appropriate on-site investigations of accidents and hazardous conditions or audits at the transit agency.

(B) Any part of a transit agency's system safety program that concerns security for the system is confidential and is not subject to disclosure, inspection, or copying under section 149.43 of the Revised Code. Security information shall be disclosed only at the discretion of the director or as otherwise provided in section 5501.55 of the Revised Code.

SSO Agency Policies

FTA provided a list of topics to be addressed as policies of the ODOT SSO program.

- Policy and procedures for Triennial Audits are covered in Section 5 of this SSOPS.
- Policy and procedures for Investigations are covered in Section 7 of this SSOPS.
- Inspections and meetings with the Ohio RTAs are discussed in this section as part of the communications discussion.

Two additional topics are addressed in this subsection regarding protection of information and conflicts of interest (COI).

Protection of Investigation and Audit Reports and Information is addressed in Part 674.23 and allows for the state to have protection for the investigation reports and related safety program information, as well as any protected security information from the RTA. The ORC specifically addresses the state of Ohio protection of investigations and audits related to the rail systems at the Ohio RTAs. The objective of the state protection is to allow open discussions and analyses of the RTA's safety-related risk and performance. Information required by the FTA safety program will be provided by the ODOT SSO program in a de-identified form, as

explained in Procedure SSO-006. All ODOT SSO program procedures are described and provided in Appendix D.

49 CFR §674.23 Confidentiality of information

(a) A State, an SSOA, or an RTA may withhold an investigation report prepared or adopted in accordance with these regulations from being admitted as evidence or used in a civil action for damages resulting from a matter mentioned in the report.

(b) This part does not require public availability of any data, information, or procedures pertaining to the security of a rail fixed guideway public transportation system or its passenger operations.

ORC Section 5501.55(D)

(1) Reports of any investigation or audit conducted by the department, a transit agency operating a rail fixed guideway system, or a contractor acting on behalf of the department or such a transit agency are confidential and are not subject to disclosure, inspection, or copying under section 149.43 of the Revised Code. Information contained in investigative files shall be disclosed only at the discretion of the director or as otherwise provided in this section.

(2) Reports of any investigation or audit conducted by the department, a transit agency operating a rail fixed guideway system, or a contractor acting on behalf of the department or such a transit agency shall not be admitted in evidence or used for any purpose in any action or proceeding arising out of any matter referred to in the investigation or audit, except in actions or proceedings instituted by the state or by the department on behalf of the state, nor shall any member of the department or its employees, a transit agency acting on behalf of the department, or a contractor acting on behalf of the department or such a transit agency be required to testify to any facts ascertained in, or information obtained by reason of, the person's official capacity, or to testify as an expert witness in any action or proceeding involving or pertaining to rail fixed guideway systems to which the state is not a party.

Conflict of Interest (COI) Management is addressed in Part 674.41 as shown in the following text box. The ODOT SSO program has also developed a Procedure SSO-002 that provides a process for considering COI and requiring a record of the decisions made to manage any perceived significant COI that falls under the requirements of Part 674.41.

49 CFR §674.41 Conflicts of interest

(a) An SSOA must be financially and legally independent from any rail fixed guideway public transportation system under the oversight of the SSOA, unless the Administrator has issued a waiver of this requirement in accordance with § 674.13(b).

(b) An SSOA may not employ any individual who provides services to a rail fixed guideway public transportation system under the oversight of the SSOA, unless the Administrator has issued a waiver of this requirement in accordance with § 674.13(b).

(c) A contractor may not provide services to both an SSOA and a rail fixed guideway public transportation system under the oversight of that SSOA, unless the Administrator has issued a waiver of this prohibition.

SSO Agency Reporting Requirements

This section provides a quick summary of the requirements for Federal and State reporting.

1. **SSO Agency Annual Report to FTA** – these requirements are covered specifically in SSOPS Section 9, and include all of the data and information required to be delivered annually by the ODOT SSO program to FTA via their electronic data collection system, by March 15th of the following year. Procedure SSO-006 also describes requirements for de-identification of the RTA data and information provided to FTA.
2. **SSO Agency Annual Safety Report to the State Governor and the RTA Board of Directors** – these requirements (Part 674.13(a)(7)) are covered in procedure SSO-005 and it describes that the State must ensure that at least once a year, the SSOA reports the status of the safety program of each RTA to the Governor, the FTA, and the board of directors, or equivalent entity, of the RTA.
3. **SSO Agency Requirements for RTA Reporting to the SSO agency and FTA** – these requirements are covered in Sections 6 through 9 of this SSOPS, as well as procedures SSO-003 (notifications of reportable events) and SSO-007 (hazards/occurrences). This includes communications and coordination of investigations, audits, and hazards data collection and reporting, and summarized in the next subsection.
4. **SSO Agency Requirements for Access to RTA Information** – these requirements are generally addressed in the next subsection and in a specific Appendix for each Ohio RTA, Appendix E (GCRTA) and Appendix G (SORTA).

SSO Agency and RTA Communication and Coordination

The ODOT SSO program expects and requires (per ORC 5501.56) full access to and cooperation from each of the Ohio RTAs. This full access includes the rail system assets (vehicles, trackway/right-of-way, overhead catenary system, substations, signals and signal huts, maintenance facilities, command and control systems, and any related data, information systems, SOPs, and standards/rules) and RTA staff at all levels (executives, directors, middle management, supervisors, and staff). The ODOT SSO program staff are expected and required to follow all operations, maintenance, and safety requirements and procedures of the Ohio RTAs when accessing facilities and systems.

The RTA Safety Department is the ODOT SSO program primary contact for coordination and planning of safety program oversight; however, contact and coordination with the rail-related departments within the RTA (Rail, Engineering, Command and Control, Training, Internal Audit, etc.) are also expected. The RTA Safety Director and Safety Staff often act as an extension of the ODOT SSO program for investigations, audits, and development and tracking of CAPs at the RTA. Specific coordination activities and personnel involved with the ODOT SSO program safety oversight are described in an appendix for each Ohio RTA – Appendix E (GCRTA) and Appendix G (SORTA).

The ODOT SSO program maintains and ensures on-going communication with the RTAs under its jurisdiction through various means including teleconferences (as needed) held with RTA personnel, monitoring RTA executive-level safety-related or risk-related meetings (often through minutes of those meetings and copies of handouts), holding quarterly meetings with program participants, and monthly status reports for all CAPs related to the ODOT SSO program. These

risk monitoring or hazard management activities are shown in Table 3 and designed to ensure active involvement of all parties in the ODOT SSO program and monitoring of all safety-related activities identified at the RTA. In addition, the ODOT SSO program tracks all relevant communications, reports, investigations, audits, and submissions made by each RTA in a monthly status report and tracking databases, as well as programmatic record keeping.

Table 3. Ohio RTA Communication and Coordination

Risk Monitoring Activity	Output	Notes
Reportable events and hazardous conditions – notification and investigation	Notification, fact sheet, draft status report, draft final report – includes CAPs, approved and adopted by ODOT SSO program	Discussed further in Sections 6, 7, and 8
Annual internal audits	Checklists and procedures reviewed for internal audits (RTA annual report); development of all CAPs by RTA and approved by ODOT SSO program	Discussed further in Sections 4 and 8
Monthly status reports for all open or recently closed CAPs and hazard tracking, including daily incident logs	Monthly status report, hazard tracking, and daily incident tracking from RTA and summary monthly report by ODOT SSO program based on the RTA information	None
Monthly RTA executive-level and other safety-related meetings	Meeting minutes and handouts provided to ODOT SSO program for executive safety committee, configuration management committee, and other related safety program committee meetings; this also includes attendance by the ODOT SSO program as needed and when possible	None
On-site quarterly meetings at RTAs to review open and recently closed CAPs and other topics related to the RTA's safety program and activities	Agenda and handouts developed for the on-site meeting and results of discussions; use these meetings to review status of open and recently closed CAPs; includes review of check for SSO versus NTD reportable events and assure that the two data systems are synchronized	None
Meetings and inspections at the RTAs	Meetings and inspections planned during quarterly meeting visits and between quarterly meeting visits to monitor risk and review CAP closure evidence; these meetings/visits are also be used to monitor safety and security certification activities	None
Technical Training Plan for ODOT SSO program staff	This includes RTA awareness training for ODOT SSO program staff as defined in the Training Plan as well as on-site activities such as riding the rail system and participating in RTA safety efficiency and enforcement activities	None
Annual RTA ASP update, review and approval by ODOT SSO program	RTA annual update/internal approval for ASP including board of directors or equivalent; completed as part of the RTA annual report	Discussed further in Section 4
Review and approval of RTA minimum safety standards	RTA minimum safety standards include those standards defined by the RTA for safe operations and maintenance in selected Plans, Manuals, and SOPs	Discussed further in Section 2
ODOT SSO program triennial audit of each RTA	Checklists, draft audit report, final audit report, CAPs developed by RTAs and approved by ODOT SSO program	Discussed further in Sections 5 and 8

Data and Information Collection and Analysis. The ODOT SSO program collects and tracks status of all reportable event notifications and investigations, internal audits, triennial audits, and the status of each CAP from these sources through closure, including evidence of closure. Other data and information includes tracking of hazards and daily incidents logs, as well as access to the RTA's database systems for operations, maintenance, and command and control related to the rail systems. In addition, the ODOT SSO program tracks some investigations that are not reportable to FTA, because of ongoing monitoring of safety performance at the RTA. All of this information is tracked in a database developed for the ODOT SSO program. Information from the database is used to support the ODOT SSO program annual submission to FTA and to develop analysis for risk monitoring or hazard management of the safety program at the RTAs. This analysis activity is intended to support risk-based, data-driven decision-making for additional investigation or audit of the RTA safety program and related all-hazards minimum safety standards by the ODOT SSO program.

The analysis activity includes periodic on-site visits by the ODOT SSO program staff beyond the planned quarterly meetings. The ODOT SSO program develops a confidential annual data analysis (trends) report to be reviewed/shared with each of the RTAs. In addition, a programmatic-level annual report is developed for the ODOT SSO program that is made available for review by the RTAs and ultimately released to the public (as now required in the Part 674 SSO program). These reports are expected to be available for review by March 31 of each year, with publication by June 30 of each year.

Federal Information Requests to RTAs. The ODOT SSO program requires that the Ohio RTAs notify and share results of contact from federal agencies such as FTA, National Transportation Safety Board (NTSB), FRA, or the Transportation Security Administration (TSA) in regards to the safety program at the RTA. The ODOT SSO program will also provide any RTA-desired support, input, or review of responses that the RTAs provide to these federal agencies. At a minimum, a courtesy copy of the correspondence and attachments is required. The ODOT SSO program also intends to share any contact received from or responses required to federal agencies that includes or directly affects the RTAs in the state, such as contact by the FTA investigators or TSA Surface Transportation Security Inspectors.

ODOT SSO Program Risk Monitoring of RTAs

FTA TSO has not yet completed the implementation of their transit-specific safety management system (SMS); however, the intent is to require it through the Agency Safety Plan (ASP) regulation, Part 673. The ODOT SSO program has always had a philosophy of safety oversight that is essentially the same as the expected oversight requirements of the new SSO Rule, ASP, and SMS through spending time onsite at the RTAs meeting with staff, inspecting facilities and infrastructure, and riding the system as often as resources allowed. Safety Risk Management (SRM) is essentially the same as the Hazard Management Program (HMP) with a focus on more comprehensive hazard identification while Safety Assurance (SA) provides for detailed safety performance measurement to understand the risk environment at the RTA. SRM and SA are used together to develop capabilities for preventing potential safety events from occurring and managing safety risk to a level as low as reasonably practicable (ALARP).

Potential hazards are a larger category than the category of actual safety-related events, in that an event (accident, incident or occurrence) has already occurred and a hazard also includes potential events that have not yet occurred. An event is a culmination of potential hazard(s) that have aligned to cause a safety related event.

The ODOT SSO program completes risk monitoring in the same way as SMS SA monitors safety performance measures, data, and information such as those shown in Figure 1 from the National Safety Plan. The list in Figure 1 can also be used as a framework for transit-specific safety performance measures and assess:

- The effectiveness of risk controls in agencies' operations and safety programs
- Conformance to expectations and/or the objectives of agencies' safety programs or policies
- Root causes of non-conformances and potential new hazards or threats
- Improvements for agencies' operations and safety programs.

The risk monitoring data, information, and analyses are used to fully understand the state of the risk environment and provide a high-level understanding of safety culture at the RTA.

Existing safety performance measures – The safety performance measures in Figure 1 already exist and are reported by transit agencies to the FTA's National Transit Database (NTD) and other federal and state agencies. Although these measures are currently in use, they would benefit significantly from better definitions to improve consistency in data reporting as well as more discrete and finer granularity to better evaluate safety performance considering such factors as type of service and vehicle types and sizes. These performance measures also need to take the risk environment into account as a part of the calculations.

Results from investigations – For reportable events, transit industry investigations should include determinations of probable causes and contributing factors, as well as root cause analyses of organizational issues that influenced the causes or consequences of the events. Investigations should identify system safety deficiencies (e.g., poor system design, failed controls, and failed preventive/corrective actions).

Audits results – For the transit industry, the objective of internal safety audits is to find and correct any safety-related programmatic or procedural non-conformances. External safety audits at transit agencies, such as FTA triennial audits, may be required for capital financing or, in the case of rail transit, for the SSO program by the state.

Risk monitoring information – Monitoring the safety program through investigations and audits, and their concomitant corrective actions, is straight-forward. Monitoring the safety program by proactively collecting and analyzing data that may indicate future problems is more difficult. The bulleted items under "risk monitoring information" in Figure 1 identify areas within the safety program where these data and information may be collected. Having a proactive safety program requires significant attention to and monitoring of this group of activities.

Existing safety performance measures (under NTD)

- **Casualties**
  - Fatalities (customers, employees, and the public)
  - Injuries (customers, employees, and the public)
- **Property damage**
- **Reportable events (Accidents)**
  - Train derailments (mainline, yard, side tracks)
  - Collisions (vehicle-to-vehicle, vehicle-to-person, vehicle-to-object)
  - Collisions at grade-crossings
  - Fires
  - Evacuations for life safety reasons

Results from reportable event (accident) investigations

- Probable cause
- Contributing factors
- Corrective actions

Audit results

- Findings
- Corrective actions

Risk monitoring information

- Safety and security reporting from all levels of the organization
- Violations of operations and maintenance (O&M) rules
- Job-based certification and awareness training
- All-hazards preparedness analyses
- O&M performance, including state of good repair (SGR) and TAM
- Monitoring of hazard logs
- Crime trends, such as trespassing, perimeter breaches, and fare evasion
- Fitness for duty, including drug/alcohol program results and hours of service
- Liability losses
- Customer complaint information
- Changes to management, operations, or maintenance
- Studies of hazardous materials, spills, and environmental concerns
- Ad hoc studies of hazards, threats, and vulnerabilities

Figure 1. Data and Information from Risk Monitoring in the Transit Industry

All-hazard Analysis and Prioritization. Figure 2 highlights an all-hazards evaluation/analysis and prioritization to be completed by transit agency staff/management. Three separate types of assessments are completed to address safety (hazard analyses), security (threat, vulnerability, and consequence assessments), and emergency preparedness (capabilities assessment) for risk management. Each assessment type has differing objectives, and the results are corrective action items for new or enhanced risk controls or mitigations to manage risk within the transit agency. Results from the three sets of assessments are prioritized from an all-hazards perspective by management consideration of lessons learned from ongoing operations and maintenance of the transit systems. The "lessons learned" here include the entire risk monitoring process already described above.

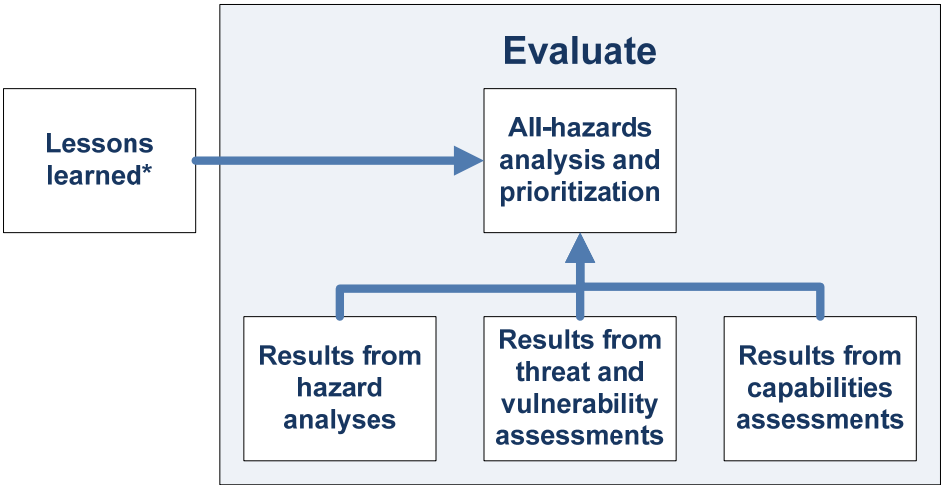

Figure 2. All-hazards Risk Management and Prioritization

Section 2. Program Standard Development

It is the primary responsibility of the ODOT SSO program to develop and administer a program standard that establishes processes and procedures governing the conduct of the oversight program at the state level. The program standard also provides guidance to regulated RTAs concerning the processes and procedures that must be implemented by the RTAs to assure compliance with the ODOT SSO program. The program standard and referenced program procedures are required to be reviewed at least annually and any changes/revisions are required to be a part of the ODOT SSO program's annual submission to the FTA SSO program, as described in Section 9. Annual Reporting to FTA.

The ODOT SSO program standard is also required to address minimum standards for safety at the Ohio RTAs. These standards are intended to include rail safety-related practices and procedures such as the RTA's Agency Safety Plan/SSPP, SSP, and other related RTA documents and procedures associated with their safety program documentation. In essentially all cases, the minimum safety standards required by the ODOT SSO program are based on the industry-based and RTA-developed safety standards used at the RTA and documented in their policies, program documents, plans, and procedures.

> **49 CFR §674.25(a) – Role of the State safety oversight agency**
> An SSOA must establish minimum standards for the safety of all rail fixed guideway public transportation systems within its oversight. These minimum standards must be consistent with the National Public Transportation Safety Plan, the Public Transportation Safety Certification Training Program, the rules for Public Transportation Agency Safety Plans and all applicable Federal and State law.
>
> **49 CFR §674.27(a)(2) – State safety oversight program standards**
> *Program standard development.* The SSO program standard must explain the SSOA's process for developing, reviewing, adopting, and revising its minimum standards for safety, and distributing those standards to the rail fixed guideway public transportation systems.

ODOT Rail Transit SSOPS

The ODOT SSOPS describes the ODOT SSO program processes and procedures, interactions and requirements for the Ohio RTAs, and the program's responsibilities to the FTA SSO program. This section provides a summary of the requirements that this SSOPS places on Ohio RTAs, the revision and approval process for this SSOPS, and distribution and availability of this SSOPS. The primary resource document from FTA for developing SSO program standards is the Draft Program Standard Technical Assistance Guide.

The ODOT SSO program manager is responsible for changes to this SSOPS, and these changes might be the result of internal or external audits, policy changes, requirement changes from FTA or the state, and/or organizational changes. In addition, per FTA guidance, the SSOPS must be reviewed at least annually to check for any needed revisions or additions. All participants involved in the ODOT SSO program are welcome to offer changes or additions to the SSOPS. Each comment or recommendation received will be reviewed by the ODOT SSO program in a timely manner. Proposed changes to this SSOPS will be circulated for review in draft form to applicable ODOT SSO program management and staff and the RTAs. Following review and

comment, draft changes must be approved by the Office of Transit Administrator and incorporated into the final revision of the SSOPS.

Once the final/updated SSOPS has been approved within ODOT, each of the RTAs will receive a copy for review through their Safety Office and will be required to acknowledge the updated SSOPS by filling in the signature page for the chief executive officer, lead for the safety program, lead for the security program, and any other appropriate parties at the RTA (and sending the signed pages back to the ODOT SSO program). Any corrections or issues at this point in the process will be reviewed and appropriate changes will be made as needed and approved by the ODOT Office of Transit Administrator. The finalized SSOPS will then be distributed electronically in Acrobat/pdf format and placed on ODOT's website at http://www.dot.state.oh.us/Divisions/Planning/Transit/Pages/RailSafety.aspx. Once the updated SSOPS has been finalized, it is the responsibility of the RTAs to pass these requirements on to any appropriate staff or contractors.

This SSOPS has been designed with the appendices separate from the body of the program standard. Updates to the appendices and procedures will follow a separate update process that will include review by the RTAs and approval by the ODOT Office of Transit Administrator, but will not require the formal signatures or acknowledgement of the changes by the RTAs. Updates to the appendices or procedures will be distributed electronically to the RTAs and posted on the ODOT website. A list of the appendices, procedures, and current version date will be listed in a version tracking table so that all ODOT SSO program participants can assure that they have the current version of each appendix. The update process for the SSOPS is also documented in Procedure SSO-001.

Minimum Standards for Safety

FTA TSO has provided clarification to the ODOT SSO program that the state is required to have the authority to develop, review, adopt, and revise minimum standards for safety at the Ohio RTAs, and this authority exists in ORC 5501.55(B)(2) Oversee adoption of standards and oversee enforcement of laws for the personal safety and security of passengers and employees of rail fixed guideway systems.

Minimum standards for safety have been envisioned within the ODOT SSO program to be those standards adopted and documented by the Ohio RTAs that govern the safe operations, command and control, and inspection and maintenance of the rail systems, including facilities, infrastructure, and rail-related vehicles. These safety-related standards generally already exist at the RTAs; however, experience from accident investigations, audits, and updates of procedures may indicate a need to update existing or develop new safety standards for the RTA. In addition, all of these safety-related standards should be based on existing transit industry standards (such as from the American Public Transportation Association (APTA), National Fire Protection Association (NFPA), American Railway Engineering and Maintenance of Way Association (AREMA), etc.) that have been customized for the RTA equipment, infrastructure, and operations. The existing transit industry related standards will also need to be checked for updates and then those updates will need to be integrated into the existing minimum safety standards documents.

The FAST Act added a requirement for FTA (in Section 5329) to include minimum standards for safety into their National Safety Plan as well as to develop a compendium of transit industry related safety standards. This compendium is available at https://www.transit.dot.gov/regulations-and-guidance/safety/transit-safety-standards.

The general list of minimum standards for safety that are tracked by the ODOT SSO program are listed next with a description of each type of document and then a specific document and version list is provided in Appendix F (GCRTA) and Appendix H (SORTA). Note that for the minimum safety standards documents, the ODOT SSO program requires direct access to these documents and any changes or when similar documents are developed by the RTA that the ODOT SSO program must review and approve the final/updated document. Each of these documents has its own process for update based on requirements or experience. Changes to the minimum standards for safety at each of the RTAs will be based on their experience, investigations, audits, and/or transit industry experience. These new or updated minimum standards for safety will be mutually agreed to with the ODOT SSO program through discussions or based on corrective actions defined by the Ohio RTA and approved by the ODOT SSO program.

- **ODOT Rail Transit SSOPS** – this document provides a description of the processes used by the SSO program, requirements of the Ohio RTAs including minimum safety standards, and distributing the SSOPS and related minimum safety standards.
- **Agency Safety Plan (ASP)/System Safety Program Plan (SSPP)** – the ASP is not yet in a final rule, so the interim ASP is the current SSPP. The ASP/SSPP contains the requirements for the safety program and related activities at the RTA. This document and its requirements are discussed further in this SSOPS Section 4.
- **System Security Plan (SSP)/Security and Emergency Preparedness Plan (SEPP)** – this security program document describes the requirements for system security and emergency preparedness at the RTA. Note that the new SSO Rule no longer defines the content of the SSP/SEPP and its processes and procedures. However, the ODOT SSO program will now consider this security program document as a minimum safety standard in terms of its overlap with the safety program at the RTA (risk assessment and management, and emergency preparedness). The ODOT SSO program no longer has requirements for the content of the SSP/SEPP, but does require that the RTA develop an appropriate security program document and the ODOT SSO program will provide oversight of that document and the processes that it represents, but only from the safety program perspective.
- **Emergency Operations Plan (EOP) –** this document provides the coordination and preparedness activities inside and outside of the RTA.
- **Rail Operating Rule Book (RORB) –** these are the rules that operators and others working around the rail system must follow.
- **Right-of-Way or Roadway Worker Protection (RWP) Plan** – this document is related to the RORB from the perspective of the protections and procedures for workers on the rail right of way.
- **Command and Control/Train Control Standard Operating Procedures (SOPs)** – these SOPs are used by the command and control staff/supervision to manage operations on the rail system for both usual and unusual operations, as well as managing maintenance and workers on the right of way. These SOPs should include

troubleshooting information for frequent problems and managing emergencies on the rail system. These SOPs include the function of load control/management.

- **Investigation Procedures at the RTA** – this procedure includes a description of the types of events that need notification and investigation, who will perform those requirements, causal factor analysis, hazard analysis, and development of recommendations and corrective actions. This procedure is also required to be adopted by the ODOT SSO program in order to authorize the RTA to be the lead investigator for the SSO program. These procedures are also mentioned in this SSOPS Sections 6 and 7.
- **Procedure requiring review of SOPs related to Safety** – this procedure requires that the minimum safety standards at the RTA are also required to be reviewed, agreed to, and approved by the Safety Department.
- **Safety and Security Certification Plan (SSCP) –** this plan provides the required activities from the RTA safety program for assuring that safety and security certification is completed for certain capital projects for new equipment/infrastructure or refurbishment of existing equipment/infrastructure. The main topics for safety and security certification are related design criteria, participation of the Safety Department, and a process of the RTA assuring that all safety and security design criteria exist, were comprehensive, and were properly addressed including integrated testing of the final products.
- **Configuration Management Plan (CMP) –** the Configuration Management Committee and processes are a required element/function within the RTA safety program, along with safety and security certification and system modifications.
- **Transit Asset Management (TAM) Plan –** this is a new plan now required for RTAs and it is related to the CMP, but with a larger context.
- **Field Supervision SOPs** – these SOPs are for supervision out on the rail system for support of service delivery, responsiveness to passengers, and safety. The field supervisors will often be the first supervision to arrive at the scene of a safety event on the rail system, and provide at least initial investigation of events on the rail system.
- **Inspection and Maintenance (I&M) Manuals, SOPs, and Standards** – these documents provide the requirements for inspection and maintenance of the rail system, including facilities, infrastructure, and related vehicles. These documents should have the customized requirements for preventive maintenance, inspection, and troubleshooting for equipment problems.

Section 3. Program Policy and Objectives

The design and implementation of the ODOT SSO program includes a difference between being responsible for defining and executing the safety program at an RTA and the state providing oversight of the safety program at an RTA. It is the intent of ODOT's SSO program to provide safety program oversight for RTAs in the state and not to attempt to take control of or manage the RTA's programs. ODOT's SSO program is designed to be cooperative with the RTAs in the state and with the FTA SSO program in order to encourage efficient and effective management of safety risk to a level as low as reasonably practicable (ALARP) within the resource constraints of these activities and programs. However, the ODOT SSO program is also designed to provide proactive and progressive oversight in addressing emerging or uncontrolled safety risk at an RTA. The Director of ODOT is also authorized both by the SSO regulation and the ORC to adopt any additional rules, program policies, and procedures needed to fully implement this program.

> **49 CFR §674.27(a)(3) – State safety oversight program standards**
> *Program policy and objectives.* The SSO program standard must set an explicit policy and objectives for safety in rail fixed guideway public transportation systems throughout the State.

Note that all parties that have signed this ODOT Rail Transit SSOPS (at the front of the document) have agreed and committed in principle and intent to follow the requirements and intent of this SSOPS.

The objectives and expectations for the ODOT SSO program include the following – the ODOT SSO program:

- Takes full responsibility for this state's safety program authority and requirements from the federal and state governments, as well as the new requirements of the Part 674 compliant SSO program, as defined in this SSOPS.
- Commits to assuring qualifications and training for SSO program-related staff (ODOT and contractor staff).
- Provides strategic, dynamic, transparent, and flexible safety oversight of the Ohio RTAs.
- Works in partnership with the Ohio RTAs in support of each Ohio RTA's safety program, which includes oversight and technical assistance for maintaining and improving safety performance at the Ohio RTAs.
- Expects and requires that the Ohio RTA Safety Department and Staff are competent in executing the requirements of the ODOT SSO program and their safety program (if not true, correcting this becomes the highest priority). In addition, we expect and require that the Ohio RTA executives and rail-related management be responsive and committed to the RTA safety program and to fulfilling the ODOT SSO program requirements, in accordance with state law and the state's SSOPS, as well as the Ohio RTA minimum safety standards.
- Commits to being responsible for the safety program-related-investigations and internal audits at the Ohio RTAs with the expectation that the Ohio RTAs are granted the responsibility to lead these investigations and internal audits. The ODOT SSO program may, at its discretion, directly participate in (or lead) these safety program related

activities, including the conduct of independent or cooperative onsite investigations/audits at the Ohio RTAs.

- Commits to the Ohio RTAs owning their safety-related risk, not the state. This means that our SSO program staff will participate in and technically review safety-related investigations, internal audits, and complete independent investigations/audits, such as the triennial review/audit. We will also make recommendations and provide input and technical assistance as needed or requested. However, the Ohio RTAs will always develop and own their corrective actions and the ODOT SSO program will coordinate through the Safety Office to approve those corrective actions when they are deemed consistent and complete with respect to the findings of the investigations and audits.
- Commits to provide periodic and three-year reviews/audits as required and determined necessary by the ODOT SSO program and to assure that our SSO program is appropriately aware of the safety risk environment at each of the Ohio RTAs.
- Commits to providing annual and periodic information and data to the FTA SSO program, as required and appropriate.

FTA TSO requires that the ODOT SSO program must demonstrate that it has the authority to escalate enforcement up to and including the authority to stop rail operations at the Ohio RTAs based on safety deficiencies. This enforcement escalation process is in Procedure SSO-004.

Section 4. Oversight of Agency Safety Plans and Transit Agencies' Internal Safety Reviews

At the time this SSOPS version was completed, the Public Transportation Agency Safety Plan (PTASP, TASP or ASP) regulation has not yet been finalized (49 CFR Part 673). According to Part 674.9(c), an interim ASP will be a fully compliant Part 659 SSPP. Once the ASP regulation is final and the Ohio RTAs are ready to convert to their ASP and SMS, then this SSOPS will be modified to fully address the Part 673 compliant ASP and its required processes, including SMS.

49 CFR §674.25(b) – Role of the State safety oversight agency
An SSOA must review and approve the Public Transportation Agency Safety Plan for every rail fixed guideway public transportation system within its oversight. An SSOA must oversee an RTA's execution of its Public Transportation Agency Safety Plan. An SSOA must enforce the execution of a Public Transportation Agency Safety Plan, through an order of a corrective action plan or any other means, as necessary or appropriate. An SSOA must ensure that a Public Transportation Agency Safety Plan meets the requirements at 49 U.S.C. 5329(d).

49 CFR §674.27(a)(4) – State safety oversight program standards
Oversight of Rail Public Transportation Agency Safety Plans and Transit Agencies' internal safety reviews. The SSO program standard must explain the role of the SSOA in overseeing an RTA's execution of its Public Transportation Agency Safety Plan and any related safety reviews of the RTA's fixed guideway public transportation system. The program standard must describe the process whereby the SSOA will receive and evaluate all material submitted under the signature of an RTA's accountable executive. Also, the program standard must establish a procedure whereby an RTA will notify the SSOA before the RTA conducts an internal review of any aspect of the safety of its rail fixed guideway public transportation system.

49 CFR §674.29 Public Transportation Safety Plans: general requirements
(a) In determining whether to approve a Public Transportation Agency Safety Plan for a rail fixed guideway public transportation system, an SSOA must evaluate whether the Public Transportation Agency Safety Plan is consistent with the regulations implementing such Plans; is consistent with the National Public Transportation Safety Plan; and is in compliance with the program standard set by the SSOA.
(b) In determining whether a Public Transportation Agency Safety Plan is compliant with 49 CFR part 673, an SSOA must determine, specifically, whether the Public Transportation Agency Safety Plan is approved by the RTA's board of directors or equivalent entity; sets forth a sufficiently explicit process for safety risk management, with adequate means of risk mitigation for the rail fixed guideway public transportation system; includes a process and timeline for annually reviewing and updating the safety plan; includes a comprehensive staff training program for the operations personnel directly responsible for the safety of the RTA; identifies an adequately trained safety officer who reports directly to the general manager, president, or equivalent officer of the RTA; includes adequate methods to support the execution of the Public Transportation Agency Safety Plan by all employees, agents, and contractors for the rail fixed guideway public transportation system; and sufficiently addresses other requirements under the regulations at 49 CFR part 673.
(c) In an instance in which an SSOA does not approve a Public Transportation Agency Safety Plan, the SSOA must provide a written explanation, and allow the RTA an opportunity to modify and resubmit its Public Transportation Agency Safety Plan for the SSOA's approval.

The Part 674 compliant SSOPS does not include requirements for the content of the SSP or SEPP, and as mentioned in SSOPS Section 2, the Ohio RTA SSP/SEPP and EOP will be included as part of the minimum standards for safety, for those aspects of the security program that overlap with the safety program. Note that calendar year 2016 will be the last required year for the RTA's annual certification for the security program document and internal audits.

Appendix I provides a requirements based outline for the ASP as currently understood from FTA's notice for proposed rulemaking (NPRM) for Part 673, Section 5329, FTA's SMS Framework, and Part 674. The requirements for the SSO program process of review and approval of the ASP is generally the same as that for the Part 659 SSPP, and the Requirements for the SSPP will continue to be provided in this SSOPS section as the RTA requirements and ODOT SSO program process, until the ASPs have been implemented at the Ohio RTAs.

The additional actions required for this SSOPS and the Ohio RTAs in order to address the requirements of the ASP are the following topics: (1) the interim ASP must also be approved by the Board of Directors (or equivalent) beyond the current SSPP process, and (2) this SSOPS must provide the criteria for an "adequately trained" Chief Safety Officer. FTA's current SMS Glossary of Terms (September 2016) defines a Chief Safety Officer as – "an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system."

Both of the Ohio RTAs are in the process of having their calendar year 2017 SSPP update approved by their Boards. In terms of the adequately trained Chief Safety Officer, there is no clear indication from FTA that the Chief Safety Officer must be fully trained for and directly involved in the safety oversight, audits, and inspections. It is the current ODOT SSO program position, that the Chief Safety Officer at the Ohio RTAs is not required to complete the FTA Safety Certification Training Program, unless the duties for the person who is designated as the Chief Safety Officer includes safety oversight, audits, and inspections. This then means that the ODOT SSOPS provides for two possibilities for an adequately trained Chief Safety Officer:

1. The Chief Safety Officer has education in system safety with a college degree (e.g., bachelors or higher degree) and/or specialized training and experience in transit safety program processes including safety program management, auditing, and investigations.
2. The Chief Safety Officer has more than 10 years of direct experience (Safety Director or Executive over the Safety Department) managing the Safety Department and processes, including a full understanding of the RTA's safety program and documentation (SSPP).

The criteria above will be superseded when FTA completes their ASP rulemaking and/or when they provide definitive guidance.

Requirements for the Interim ASP/SSPP

The system safety program plan (SSPP) is intended to document the safety program at an RTA (or any other transit mode) including all of the activities within the safety program. The SSPP is used by the transit agency and the ODOT SSO program to audit the safety program and activities to assure that both the program documentation is complete and accurate and that the transit agency is executing all of the documented program activities. In addition, this section describes the annual review and update process of the SSPP, and the ODOT SSO program process for approval of the updated SSPP. The primary resource documents from FTA for developing an SSPP are the following:

- *Implementation Guidelines for 49 CFR Part 659,* FTA, March 2006, http://www.fta.dot.gov/documents/Imp_Guidelines.pdf.
- *Resource Toolkit for State Oversight Agencies Implementing 49 CFR Part 659, Appendix E: Program Requirements for Development of a Rail Transit Agency System Safety Program Plan (SSPP),* FTA, March 2006, http://transit-safety.volpe.dot.gov/publications/sso/Imp_Guidelines/toolkit/pdf/AppendixE.pdf.

49 CFR §659.15 System safety program standard

(b)(8) *System safety program plan section*. This section shall specify the minimum requirements to be contained in the rail transit agency's system safety program plan. The contents of the system safety program plan are discussed in more detail in §659.19 of this part. This section shall also specify information to be included in the affected rail transit agency's system safety program plan relating to the hazard management process, including requirements for on-going communication and coordination relating to the identification, categorization, resolution, and reporting of hazards to the oversight agency. More details on the hazard management process are contained in §659.31 of this part. This section shall also describe the process and timeframe through which the oversight agency must receive, review, and approve the rail transit agency system safety program plan.

49 CFR §659.17 System safety program plan: general requirements

(a) The oversight agency shall require the rail transit agency to develop and implement a written system safety program plan that complies with requirements in this part and the oversight agency's program standard.

(b) The oversight agency shall review and approve the rail transit agency system safety program plan.

(c) After approval, the oversight agency shall issue a formal letter of approval to the rail transit agency, including the checklist used to conduct the review.

Required Content of the RTA SSPP. Each Ohio RTA is required to prepare and submit an SSPP to the ODOT SSO program for its review and written approval based on compliance with the ODOT Rail Transit SSOPS. The RTA is also required to consider an update of its SSPP at least annually. The general design and content of the SSPP are required and described in 49 CFR §659.19, System safety program plan: contents, and included as part of the following 21 topics/elements descriptions:

1. **Policy statement and authority for SSPP.** A current policy statement signed by the chief executive of the RTA that endorses the safety program and describes the authority that establishes the SSPP.

2. **Goals and objectives.** A clear definition of the goals and objectives for the RTA safety program and stated management responsibilities to ensure that they are achieved.

3. **Overview of management structure.** An overview of the management structure of the RTA, including (i) an organization chart; (ii) a description of how the safety function is integrated into the rest of the RTA organization; and (iii) clear identification of the lines of authority used by the RTA to manage safety issues.

4. **SSPP control and update procedure.** The process used to control changes to the SSPP, including (i) specifying an annual assessment of whether the SSPP should be updated; and (ii) required coordination with the ODOT SSO program, including timeframes for submission, revision, and approval.

5. **SSPP implementation activities and responsibilities**. A description of the specific activities required to implement the RTA safety program, including (i) tasks to be performed by RTA safety function, by position and management accountability, specified in matrices and/or narrative format; and (ii) safety-related tasks to be performed by other RTA departments, by position and management accountability, specified in matrices and/or narrative format. The matrices and/or narrative should also specify associated schedules identifying the frequency in which the activity is performed (i.e., daily, weekly, monthly, quarterly, annually, or as needed).

6. **Hazard management process.** A description of the process used by the RTA to implement its hazard management program, including activities for (i) hazard identification; (ii) hazard investigation, evaluation, and analysis; (iii) hazard control and elimination; (iv) hazard tracking; and (v) requirements for on-going reporting to the ODOT SSO program relating to hazard management activities and status.
   The hazard management process must identify all mechanisms, systems, and procedures in place at the RTA to identify hazards. The hazard management system must describe how identified hazards are investigated, evaluated, and analyzed, and how they are controlled or eliminated either through design, use of safety and/or warning devices, or provision of procedures. The hazard management process must also detail how hazards are tracked through resolution, and specify the RTA's on-going reporting requirements for communicating this information to the ODOT SSO program. As mentioned earlier, FTA provided a hazard management clarification letter that is only available upon request.

   - *49 CFR Part 659 Hazard Management Program Requirements, Clarification Letter*, FTA, September 2007, available only by request to the FTA SSO program.
   - *Hazard Analysis Guidelines for Transit Projects,* FTA, January 2000, http://www.fta.dot.gov/documents/HAGuidelines.pdf.

49 CFR §659.31 Hazard management process

(a) The oversight agency must require the rail transit agency to develop and document in its system safety program plan a process to identify and resolve hazards during its operation, including any hazards resulting from subsequent system extensions or modifications, operational changes, or other changes within the rail transit environment.

(b) The hazard management process must, at a minimum:

(1) Define the rail transit agency's approach to hazard management and the implementation of an integrated system-wide hazard resolution process;

(2) Specify the sources of, and the mechanisms to support, the on-going identification of hazards;

(3) Define the process by which identified hazards will be evaluated and prioritized for elimination or control;

(4) Identify the mechanism used to track through resolution the identified hazard(s);

(5) Define minimum thresholds for the notification and reporting of hazard(s) to oversight agencies; and

(6) Specify the process by which the rail transit agency will provide on-going reporting of hazard resolution activities to the oversight agency.

7. **System modification.** A description of the process used by the RTA to ensure that safety concerns are addressed in modifications to existing systems, vehicles, and equipment, which do not require formal safety and security certification but which may impact safety. It is recommended that the RTA safety, engineering, and maintenance departments work jointly to develop a formal procedure, if one does not already exist, to establish this process. This procedure should be referenced in this section. This section and procedures should address the use of acceptance testing and assuring proper installation and operation once the system modification has been made (quality assurance).

8. **Safety (and security) certification.** A description of the safety and security certification process required by the RTA to ensure that safety concerns and hazards are adequately addressed prior to the initiation of passenger operations for any capital project to extend, rehabilitate, or modify an existing system, or to replace vehicles and equipment. This section and any plan or procedure should address the use of acceptance testing and assuring proper installation and operation once the capital project is near completion and ready for such acceptance testing. References to appropriate safety and security certification plans and procedures should be provided in this section. FTA has provided a few related resource documents listed here.

- *Handbook for Transit Safety and Security Certification*, FTA, November 2002, http://www.fta.dot.gov/documents/SSC.pdf.
- *Transit Security Design Considerations,* FTA, November 2004, http://www.fta.dot.gov/documents/ftasesc.pdf.
- *Safety and Security Management Guidance for Major Capital Projects, C5800.1,* FTA, August 2007
- *Safety and Security Management in Rail Transit Projects,* FTA, March 2009, available only by request to the FTA SSO program
- *Compliance Guidelines for States with New Starts Projects,* FTA, June 2000,

http://www.fta.dot.gov/documents/NewStarts.pdf.

- *FTA Research Report No. 0015, Construction Project Management Handbook*, FTA, March 2012, http://www.fta.dot.gov/documents/FTA_Report_No._0015.pdf.
- *Project and Construction Management Guidelines,* FTA, July 2012, http://www.fta.dot.gov/FTA_Project_and_CM_Guidelines_-_July_2011_Update_12-01-26.pdf.

9. **Safety (and security) data collection and analysis.** A description of the process used to collect, maintain, analyze, and distribute safety data, to ensure that the safety function within the RTA receives the necessary information to support implementation of the system safety program and assurance that any controls are working appropriately or as intended. Accountability for the reporting and analysis of safety information should be addressed. As appropriate, this section should reference the procedures developed to support the hazard management process.

10. **Accident/incident investigations.** A description of the process used by the RTA to perform reportable event or hazardous condition notification, investigation, and reporting, including (i) notification thresholds for internal and external organizations; (ii) investigation process and references to procedures; (iii) the process used to develop, implement, and track corrective actions that address investigation findings; (iv) reporting to internal and external organizations; and (v) coordination with the ODOT SSO program. Since the RTA conducts essentially all of the investigations required for the ODOT SSO program, formal procedures for this notification, investigation, and reporting are required to be developed and adopted and approved by the ODOT SSO program.

11. **Emergency management program.** A description of the process used by the RTA to develop an approved, coordinated schedule for all emergency management program activities, which include (i) meetings with external agencies; (ii) emergency planning responsibilities and requirements; (iii) process used to evaluate emergency preparedness, such as annual emergency field exercises; (iv) after action reports and implementation of findings; (v) revision and distribution of emergency response procedures; (vi) familiarization training for public safety organizations; and (vii) employee training. As appropriate, participation in grant programs (and compliance with grant requirements) should be noted. In addition, this section of the SSPP should describe the joint activities and shared responsibilities with the security department/program, and if appropriate, reference the appropriate portions of the RTA SSP or emergency operation plan (EOP). FTA has a few resource documents that are related to this topic and listed here. The last document is from the Federal Emergency Management Agency (FEMA) and directly related to standardized EOPs.

    - *The Public Transportation System Security and Emergency Preparedness Planning Guide*, FTA, January 2003, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/PlanningGuide.pdf .
    - *Security and Emergency Preparedness Action Items for Transit Agencies,* FTA and TSA, 2014, https://www.transit.dot.gov/oversight-policy-areas/security-and-emergency-preparedness-action-items-transit-agencies.

- *Transit Agency Security and Emergency Management Protective Measures*, FTA, November 2006 (this document is in the process of update in 2014), https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ProtectiveMeasures.pdf.
- *Developing and Maintaining Emergency Operations Plans, Comprehensive Preparedness Guide (CPG) 101, Version 2.0,* FEMA, November 2010, http://www.fema.gov/media-library-data/20130726-1828-25045-0014/cpg_101_comprehensive_preparedness_guide_developing_and_maintaining_emergency_operations_plans_2010.pdf.

12. **Internal safety audits.** A description of the process used by the RTA to ensure that scheduled internal safety (and safety-related security program) reviews are performed to evaluate compliance with the SSPP, including (i) identification of departments and functions subject to review; (ii) responsibility for scheduling reviews; (iii) process for conducting reviews, including the development of checklists and procedures and issuing of findings; (iv) review of reporting requirements; (v) tracking the status of implemented recommendations; and (vi) coordination with the ODOT SSO program.

13. **Rules compliance.** A description of the process used by the RTA to develop, maintain, and ensure compliance with rules and procedures having a safety impact, including (i) identification of operating and maintenance rules and procedures subject to review; (ii) techniques used to assess the implementation of operating and maintenance rules and procedures by employees, such as performance testing; (iii) techniques used to assess the effectiveness of supervision relating to the implementation of operating and maintenance rules; and (iv) process for documenting results and incorporating them into the hazard management program.

14. **Facilities and equipment inspections.** A description of the process used for facilities and equipment safety inspections, including (i) identification of facilities and equipment subject to regular safety-related inspection and testing; (ii) techniques used to conduct inspections and testing; (iii) inspection schedules and procedures; and (iv) description of how results are entered into the hazard management process. Applicable procedures should be referenced in the SSPP.

15. **Maintenance audits and inspections.** A description of the maintenance audits and inspections program including identification of the affected facilities and equipment, maintenance cycles, documentation required, and the process for integrating identified problems into the hazard management process. Applicable procedures should be referenced in the SSPP.

16. **Training and certification program for employees and contractors.** A description of the training and certification program for employees and contractors, including (i) categories of safety-related work requiring training and certification; (ii) a description of the training and certification program for employees and contractors in safety-related positions; (iii) process used to maintain and access employee and contractor training records; and (iv) process used to assess compliance with training and certification requirements.

17. **Configuration management and control.** A description of the configuration management (including asset management) control process, including (i) the authority to make configuration changes; (ii) process for making changes; and (iii) assurances necessary for formally notifying all involved departments.

18. **Local, state, and federal requirements.** A description of the safety program for employees and contractors that incorporates the applicable local, state, and federal requirements, including (i) safety requirements that employees and contractors must follow when working on, or in close proximity to, RTA-controlled property; and (ii) processes for ensuring the employees and contractors know and follow the requirements. This section should include a description of how employee and contractor safety requirements are assessed during audit and rules compliance activities.

19. **Hazardous materials program.** A description of the hazardous materials program, including the process used to ensure knowledge of and compliance with program requirements. This description should include an explanation of how this information is conveyed to employees and contractors through training programs and evaluated through inspections and audits, and rules compliance activities.

20. **Drug and alcohol program.** A description of the drug and alcohol program and the process used to ensure knowledge of and compliance with program requirements. This description should also explain how implementation of this program is evaluated through inspections and audits, and rules compliance activities. FTA's drug and alcohol program documents and information are available on their website at: https://transit-safety.fta.dot.gov/DrugAndAlcohol/Default.aspx.

21. **Procurement process.** A description of the measures, controls, and assurances in place to ensure that safety principles and requirements are included in the RTA procurement process. The scope of the procurement process is comprehensive and includes acquisition of services, materials, and equipment, as well as new systems.

ODOT SSO Program Review and Approval of RTA SSPPs. Based on the requirements of the ODOT Rail Transit SSOPS and 49 CFR Part 659, the RTA is required to submit an initial SSPP, any significant updates/modifications to a previously approved SSPP, and annual reviews and updates (if needed) to the ODOT SSO program for review and approval.

Initial submittals – An RTA new (or extension) rail system capital project is required to make an initial submittal of an SSPP (or appropriate modification to an existing SSPP) to the ODOT SSO program at least one-hundred eighty (180) calendar days before beginning revenue service operations. The initial SSPP will be reviewed and approved by the ODOT SSO program in writing as part of the new rail system capital project safety and security certification process. The review and approval process for initial submittals generally follows the SSPP update review and approval process discussed next, but is generally a more thorough review and may take several revision cycles to complete. This is the reason for the long-lead time for the initial submittal.

49 CFR §659.25 Annual review of system safety program plan and system security plan

(a) The oversight agency shall require the rail transit agency to conduct an annual review of its system safety program plan and system security plan.
(b) In the event the rail transit agency's system safety program plan is modified, the rail transit agency must submit the modified plan and any subsequently modified procedures to the oversight agency for review and approval. After the plan is approved, the oversight agency must issue a formal letter of approval to the rail transit agency.
(c) In the event the rail transit agency's system security plan is modified, the rail transit agency must make the modified system security plan and accompanying procedures available to the oversight agency for review, consistent with requirements specified in §659.23(e) of this part. After the plan is approved, the oversight agency shall issue a formal letter of approval to the rail transit agency.

The ODOT SSO program may require on-demand changes to an SSPP based on revisions to the ODOT Rail Transit SSOPS, 49 CFR Part 659, audit results, investigations, or changing trends in safety and security data and information analysis. Upon receipt of a written notification from the ODOT SSO program for SSPP modifications, the RTA and the ODOT SSO program will negotiate a timeframe and set a deadline for completing the revision. In the event the RTA significantly modifies its SSPP for its own purposes and needs, the RTA will submit the modified SSPP to the ODOT SSO program for review and approval within thirty (30) calendar days of the effective date of the change. Note that all operating rules, procedures, and materials referenced in the RTA SSPP should also be submitted to the ODOT SSO program with the SSPP to ensure an efficient and complete review of the RTA's safety program, as documented in the SSPP.

Per the SSO regulation, the RTA is required to review its SSPP at least annually and make any modifications, as needed to assure that the SSPP is current and accurate. The RTA completes the annual review for the previous calendar year and submits an updated draft SSPP to the ODOT SSO program for review and approval by the end of the year (December 31). Each updated draft SSPP submitted to the ODOT SSO program by an RTA should include a summary that identifies and explains the changes. If there are no changes required for the SSPP, it should be indicated at this point in the review and approval process.

The ODOT SSO program staff reviews the draft SSPP update to determine if there are any issues or if the draft SSPP is ready for approval. The ODOT SSO program uses a conformance checklist for the review of the SSPP (included in Appendix J), and determines if the SSPP meets the federal and state program requirements based on this SSOPS. If there are any issues with the draft SSPP, the ODOT SSO program staff will contact the RTA and negotiate appropriate modifications to the SSPP. The ODOT SSO program or the RTA may request a meeting to review and discuss SSPP issues to assure an understanding of the needed changes, and negotiate the timing of any needed modifications to the draft SSPP.

Once the draft SSPP has been determined to be ready for approval, the ODOT SSO program staff will indicate that status to the appropriate RTA staff, and provide the checklist used for the review. At this point in the update process, the RTA can finalize their updated SSPP with

appropriate signatures and transmittal letter, and submit the final SSPP to the ODOT SSO program. This submittal is required to be completed by January 31 each year to coincide with the RTA's annual report to the ODOT SSO program as discussed in the next subsection on internal safety audits. Upon receipt of the final RTA SSPP, the ODOT SSO program will issue written approval of the SSPP to the RTA within thirty (30) calendar days.

Oversight of Internal Safety Audits

As part of the ODOT SSO program, each Ohio RTA is required to develop a three-year cycle of internal audits of all 21 elements of the SSPP (the interim ASP), covering approximately one-third of these elements each year. The purpose of the internal safety audits is to compare the content of the safety program document to the activities that the RTA actually executes. Findings and changes might require the program documentation or minimum standards for safety be updated to reflect current activities or activities might need to be changed or added so that the documents and activities match. Each RTA is required to provide the ODOT SSO program with an annual report and certification letter of compliance along with the RTA's current SSPP (interim ASP) by January 31 of each year.

Internal Audit Schedule and Checklists. The ODOT SSO program requires that each RTA provide a three-year schedule of internal safety audits at the beginning of that three-year cycle (required by March 31 of the year starting the three-year cycle) with a schedule of each of the three years of audits for the safety program. This schedule of internal safety audits can change as needed so long as the overall three-year requirement of completing all elements is met. The schedule and progress of internal safety audits each year is tracked as part of the monthly status tracking of CAPs.

The RTA develops procedures and documents the process for the performance of on-going internal safety audits. Each year, checklists and procedures and documents are developed/collected for each audit at the RTA and provided/submitted to the ODOT SSO program for review and notification at least thirty (30) days before the intended internal audit so that the ODOT SSO program staff has the opportunity to participate in reviews and audits at their discretion. In order to address conflict of interest and to protect the independent nature of the internal audit processes, the RTA staff in charge of each audit cannot be the department in charge of implementing the activities being audited.

The ODOT SSO program requires that the internal audit reports produced for each audit be provided for review. This requirement is intended to help address any issues with the internal audit findings and CAPs developed in order to streamline the approval of the RTA's annual report. As with all investigation reports, the internal audit reports and related CAPs are protected by the ORC and cannot be released without ODOT's permission.

RTA Annual Report. The RTA is required annually to submit a report to the ODOT SSO program by January 31 of each year. This annual report documents CAPs developed to address internal safety review and audit findings. The RTA annual report must be accompanied by a formal certification signed by the chief executive of the RTA, indicating that the RTA is in compliance with its safety program. This annual report and certification also coincide with the annual update of the safety program document (SSPP/interim ASP). If the RTA determines that

findings from its internal safety audits indicate that the RTA is not in compliance with its safety program, the chief executive must identify the activities the RTA will take to achieve compliance. The ODOT SSO program is required to review the annual report within thirty (30) days and issue a written response either approving or disapproving the annual report. A meeting to review and discuss the response to the annual report may be convened at the request of either the ODOT SSO program or the RTA.

If the annual report is approved by the ODOT SSO program, no further actions relative to the annual report will be required, and the ODOT SSO program will provide an approval letter to the RTA. If the ODOT SSO program disapproves the annual report, the ODOT SSO program will notify the RTA in writing and identify the specific deficiencies in the report. The RTA will have thirty (30) calendar days, upon receipt of disapproval of the report, to develop a CAP or methodology to correct the identified deficiencies. The CAP must identify the noted audit deficiency; identify a process, plan, or mechanism to address and resolve the deficiency; establish a timeframe for implementation of a plan of action; identify department(s) and person(s) who will be responsible for implementation, and other critical pertinent information. The ODOT SSO program and RTA will work together to assure that the CAP is sufficient to address the deficiencies identified in the internal audits. This CAP will become a part of the RTA's monthly tracking of all open CAPs until fully implemented. Once any corrective actions are defined, the ODOT SSO program will provide their approval of the RTA annual report.

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Section 5. Triennial SSO Agency Audits

The ODOT SSO program will conduct an on-site safety review and audit of the RTA implementation of its safety program as documented in their interim ASP/SSPP at least once every three (3) years, beginning with initiation of the RTA passenger operations. At the conclusion of the on-site review and audit, the ODOT SSO program will prepare and issue a report containing findings and recommendations resulting from the review and audit. Findings and recommendations might require the program documentation (interim ASP/SSPP) to be updated to reflect current activities or activities might need to be changed or added so that the documents and activities match. The RTA will be required to develop CAPs as needed based on those findings and recommendations. Appendix K provides the ODOT SSO program review and audit process and procedure, including expectations/requirements of the Ohio RTAs.

49 CFR §674.27(a)(5) – State safety oversight program standards
Triennial SSOA audits of Rail Public Transportation Agency Safety Plans. The SSO program standard must explain the process the SSOA will follow and the criteria the SSOA will apply in conducting a complete audit of the RTA's compliance with its Public Transportation Agency Safety Plan at least once every three years, in accordance with 49 U.S.C. 5329. Alternatively, the SSOA and RTA may agree that the SSOA will conduct its audit on an on-going basis over the three-year timeframe. The program standard must establish a procedure the SSOA and RTA will follow to manage findings and recommendations arising from the triennial audit.

49 CFR §674.31 Triennial audits: general requirements
At least once every three years, an SSOA must conduct a complete audit of an RTA's compliance with its Public Transportation Agency Safety Plan. Alternatively, an SSOA may conduct the audit on an on-going basis over the three-year timeframe. At the conclusion of the three-year audit cycle, the SSOA shall issue a report with findings and recommendations arising from the audit, which must include, at minimum, an analysis of the effectiveness of the Public Transportation Agency Safety Plan, recommendations for improvements, and a corrective action plan, if necessary or appropriate. The RTA must be given an opportunity to comment on the findings and recommendations.

The ODOT SSO program will develop and maintain a schedule of three-year safety reviews and audits of each RTA under its jurisdiction, and will schedule the three-year safety review and audit of each RTA at least sixty (60) calendar days in advance of the on-site portion of the review and audit. The ODOT SSO program will schedule a pre-review meeting with the RTA for clarification of any questions and concerns, and coordination of daily schedules with the RTA (typically as part of an existing quarterly meeting at the RTA). This triennial review and audit process is intended to be flexible in scheduling and changes to that schedule will be made as needed by the RTA or the ODOT SSO program.

The ODOT SSO program team will develop checklists from program experience over the previous three years in order to thoroughly check all investigations, audits, and CAPs. This three-year period also matches the three-year cycle of internal safety audits. The ODOT SSO program three-year review and audit checklists will be risk-based, and data-driven for reviewing and auditing the safety program at the RTAs. The ODOT SSO program team will transmit these checklists to the RTA at least thirty (30) calendar days prior to the start date of the on-site portion of the review and audit.

During the on-site review and audit week, the ODOT SSO program team will schedule entrance and exit meetings with the RTA staff to explain the planned on-site activities, to resolve any issues that may exist, and provide any observations or issues from the review and audit at the end of the on-site week. Both of these meetings with the RTA will provide a description of the next steps and provide an opportunity for discussion of any issues. These ODOT SSO program reviews and audits are intended to be an open and collaborative process with the RTAs.
After the on-site review has been completed, the ODOT SSO program staff will issue a draft report detailing its findings and recommendations. The RTA will have an opportunity to comment on the content of the report including the findings and recommendations. The ODOT SSO program team will make revisions as needed and distribute the final safety review and audit report. This review and audit report will also have the same protection as all other investigation-related information within the ODOT SSO program.

Once the review and audit report has been completed, the RTA is required to develop a CAP or methodology to correct identified deficiencies. The ODOT SSO program will formally approve those CAPs via letter. The CAP development and approval process is described further in SSOPS Section 8.

Section 6. Accident Notification

This section addresses those safety-related events that might require notification by the RTA to the SSOA or FTA within two hours by telephone. These requirements for notification often coincide with the safety-related events that need to be investigated by the SSOA either directly or through the RTA Safety Department.

> **49 CFR §674.27(a)(6) – State safety oversight program standards**
> *Accident Notification Requirements.* The SSO program standard must establish requirements for an RTA to notify the SSO agency of accidents on the RFGPTS. These requirements must address, specifically, the time limits for notification, methods of notification, and the nature of the information the RTA must submit to the SSO agency.
>
> **49 CFR §674.33 Notification of accidents**
> (a) Two-hour notification. In addition to the requirements for accident notification set forth in an SSO program standard, an RTA must notify both the SSOA and the FTA within two hours of any accident occurring on a RFGPTS. The criteria and thresholds for accident notification and reporting are defined in a reporting manual developed for the electronic reporting system specified by FTA as required in § 674.39(b), and in appendix A.
> (b) FRA notification. In any instance in which an RTA must notify the FRA of an accident as defined by 49 CFR 225.5 (i.e., shared use of the general railroad system trackage or corridors), the RTA must also notify the SSOA and FTA of the accident within the same time frame as required by the FRA.

The new FTA safety programs have a new set of definitions for a safety-related event, taken from Part 674.7.

- ***Event*** means an Accident, Incident, or Occurrence.
- ***Accident*** means an Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision involving a rail transit vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause. An accident must be reported in accordance with the thresholds for notification and reporting set forth in an Appendix to this part [shown below].
- ***Incident*** means an event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a rail transit agency. An incident must be reported to FTA's National Transit Database in accordance with the thresholds for reporting set forth in the Appendix to this part. If a rail transit agency or State Safety Oversight Agency later determines that an Incident meets the definition of Accident in this section, that event must be reported to the SSOA in accordance with the thresholds for notification and reporting set forth in Appendix to this part.
- ***Occurrence*** means an Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a rail transit agency.

Appendix to Part 674 – Notification and Reporting of Accidents, Incidents and Occurrences

Event / Threshold	Human Factors	Property Damage	Types of Events (examples)	Actions
Accident: RTA to Notify SSOA and FTA within two hours	- Fatality (occurring at the scene or within 30 days following the accident) - One or more persons suffering serious injury	- Property damage resulting from a collision involving a rail transit vehicle; or any derailment of a rail transit vehicle	- A collision between a rail transit vehicle and another rail transit vehicle - A collision at a grade crossing resulting in serious injury or fatality - A collision with a person resulting in serious injury or fatality - A collision with an object resulting in serious injury or fatality - A runaway train - Evacuation due to life safety reasons - A derailment (mainline or yard) - Fires resulting in a serious injury or fatality	- RTA to notify SSOA and FTA within 2 hours; investigation required - RTA to report to FTA within 30 days via the NTD - RTA to record for SMS Analysis
Incident: RTA to Report to FTA (NTD) within 30 days	- A personal injury that is not a serious injury - One or more injuries requiring medical transportation away from the event.	- Non-collision related damage to equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency	- Evacuation of a train into the right-of-way or onto adjacent track; or customer self-evacuation - Certain low-speed collisions involving a rail transit vehicle that result in a non-serious injury or property damage - Damage to catenary or third-rail equipment that disrupts transit operations - Fires that result in a non-serious injury or property damage - A train stopping due to an obstruction in the tracks/"hard stops" - Most hazardous material spills	- RTA to report to FTA within 30 days via the NTD - RTA to record for SMS Analysis
Occurrence: RTA to record data and make available for SSO and/or FTA review	- No personal injury	- Non-collision related damage to equipment, rolling stock, or infrastructure that does not disrupt the operations of a transit agency	- Close Calls/Near Misses - Safety rule violations - Violations of safety policies - Damage to catenary or third-rail equipment that do not disrupt operations - Vandalism or theft	- RTA will collect, track and analyze data on Occurrences to reduce the likelihood of recurrence and inform the practice of SMS

- ***Serious injury*** means any injury which:
  (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received;
  (2) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
  (3) Causes severe hemorrhages, nerve, muscle, or tendon damage;
  (4) Involves any internal organ; or
  (5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Notification Requirements

The new SSO Rule (Part 674) only requires notification of events that meet the definition of an accident, and these criteria are similar, but slightly different from Part 659, as shown in Table 4. This SSOPS focuses on the Part 674 reportable event criteria, but also includes the Part 659 reportable event criteria (as a union of the two sets of criteria), because the ODOT SSO program has not yet been certified by FTA TSO. Once the ODOT SSO program is certified by FTA TSO to Part 674, the Part 659 only reportable criteria will no longer be required (this will be a revision of this SSOPS).

Table 4. Notification Criteria for Reportable Accidents

Part 659 Criteria	Part 674 Criteria
Any incident involving a rail transit vehicle or taking place on rail transit-controlled property	No related language, but implied that the scope is all of the rail system, operations, command and control, and maintenance
A fatality at the scene; or where an individual is confirmed dead within thirty (30) days of a rail transit-related incident	Same, clarified to match as described in Appendix
Injuries requiring immediate medical attention away from the scene for two or more individuals	One or more "serious injury", definition provided above.
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	No related language, Appendix implies that it requires another criterion to be met – collision or derailment
An evacuation due to life safety reasons	Same
A collision at a grade crossing	Same, but appendix implies that it requires a serious injury to be an accident
A main-line derailment	Expanded to all derailments on any part of the rail system whether in or out of service, passenger or work vehicle
A collision with an individual on a rail right of way	Same, but appendix implies that it requires a serious injury to be an accident
A collision between a rail transit vehicle and a second rail transit vehicle, or a rail transit non-revenue vehicle	Same
N/A	Appendix also indicates that a collision with an object that causes a serious injury
N/A	Runaway Train
N/A	Fires on the rail system that cause a serious injury

Currently, the ODOT SSO program requires several additional topics to be notified and investigated in a similar fashion as the regulatory required notification criteria. Once the ODOT SSO program is certified by FTA TSO, the list of required state criteria for notification and investigation will be revised here and as defined in Procedure SSO-003.

1. **Near mishap collision** – This event type includes near train-on-train collisions or train-on-automobile/truck (or automobile/truck-on-train) (this does NOT include near train-on-pedestrian or bicyclist, but the RTAs are encouraged to track these occurrences for risk monitoring). For GCRTA, this also is any time that two opposing trains are unexpectedly or uncontrolled with movement heading towards each other (e.g., block-on-block). This topic also includes non-revenue rail vehicles, on the main line, and in yard areas. *[Part 674 lists this topic as an Occurrence]*

2. **Near mishap collision with workers** out on the right of way (or in yards). For Cincinnati Streetcar, this event type includes trains as well as cars or trucks, since the right of way is on the street. This category is intended to monitor work zones and significant issues related to the Right-of-way Worker Protection (RWP). *[Part 674 lists this topic as an Occurrence]*
3. **One serious injury** – this category is as defined in 49 CFR Part 674.7 [means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) Causes severe hemorrhages, nerve, muscle, or tendon damage; (4) Involves any internal organ; or (5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface]. *[this topic is now a reportable accident under Part 674]*
4. **Runaway train** – this is train movement without an operator in control (including unintended roll back) or in the cab/operating station controlling the train. *[this topic is now a reportable accident under Part 674]*
5. **Selected significant hazardous conditions** – these are somewhat ad hoc in nature, so this topic will continue to be a discussion. *[Part 674 generally designates these topics as Occurrences]*

GCRTA Only

6. **Evacuations of passengers to the right-of-way** – this definition includes any time that passengers are evacuated from trains for non-life-threatening reasons to the right-of-way/street level and not to a waiting train to pick them up at the scene of the disabled/stopped train. *[Part 674 lists this topic as an incident]*
7. **Any significant pantograph and OCS problems** on the mainline or yards that cause an overhead line pull down, any pantograph entanglement, or multiple (more than three or four) pantographs being damaged. *[Part 674 lists this topic as an incident]*
8. **Yard control and movement problems** – these are yard derailments, hard couples in the yard, switch problems into and out of the yard, and yard control problems. This includes revenue and non-revenue vehicles. *[Part 674 indicates that ALL derailments of any equipment, anywhere on the rail system as a reportable accident; the remaining Yard control issues are considered Occurrences]*

Item #5 above of these state requirements is listed to indicate that more topics may be added, as needed, based on experience with safety performance issues. Once the ODOT SSO program is certified to Part 674, the specific topics that will be removed from notification, investigation, and reporting are the following:

- Two or more injuries requiring immediate medical attention away from the scene [only the serious injury criterion will be used]

Additionally, some topics are removed by Part 674 and will be added to the state required notification, investigation, and reporting as follows:

- Property damage that disrupts the rail system operation is redefined as an incident by Part 674, but will continue to be required by the state. This includes significant damage to the rail system, OCS, substations, and any other rail related facilities.
- Collisions – all grade crossing collisions (vehicles or persons), collision with an individual on the right of way, if these events do not reach the Part 674 requirement, they will continue to be required as a state required event.

The table from the Part 674 Appendix indicates that incidents and occurrences are only reportable to FTA for defined incidents and occurrences are only auditable by FTA or the SSOA. The ODOT SSO program risk monitoring and analyses for safety performance measurement discussed back in Section 1 requires that these events be reported to the state. Under Part 659, there was a term "unacceptable hazardous condition" or the ODOT SSO program uses the term "significant hazardous condition." FTA has determined that these hazardous conditions need to have data reported in the annual data submission, and that the required topics are actually occurrences (provided via FTA audit – red signal violations; broken rail/track buckle; railcar braking failure; near misses with automobiles/pedestrians; and door faults/doors opening wrong side).

The Program Standard guidance document lists the following topics as potentially being required by the SSOA for notification and then some amount of investigation. The source of this information is provided in the list, along with any requirement for state-level notification, investigation, and reporting.

- Red signal violations – daily incident log
- Signal device failures – daily incident log
- Near misses with other rail vehicles, employees, automobiles, or pedestrians – daily incident log, also a state reportable if deemed a significant hazardous condition
- Door faults including wrong-side door openings or door openings during train movement – daily incident log
- Arcing electrical equipment – this item appears to imply a serious injury and would be reportable or equipment failure, and would be on the daily incident log if a disruption to service/operations
- OSHA-reportable accidents – if a serious injury, this is reportable; OSHA (Bureau of Workers Compensation (BWC) in the state of Ohio) accidents are tracked as part of SSPP Section 18, required by state law; if one of these accidents is deemed to be a significant hazardous condition, it would be state reportable.

For the ODOT SSO program, these topics/occurrences are treated either as a state reportable event or are tracked and analyzed from the RTA's Daily Incident Log, which is collected on a regular basis – GCRTA is the next working day, on a daily basis; SORTA is two to three times a month, or upon request. Also, the list provided by FTA in their audit of the ODOT SSO program is collected as part of the Daily Incident Logs.

Experience has shown that some events become reportable to the ODOT SSO program based on further information beyond the 2-hour time limit, and this will continue to be an expected situation for the program. Example specific reportable events include security events where two

or more persons transported away from the scene for medical attention. Another situation that is often difficult to notify in a timely fashion is accurately and quickly assessing damage above $25,000. In some cases, an event appears to be reportable, and then is later determined to not meet the reportable criteria. Each of these situations will be managed on a case-by-case basis. In each case, the notification and reporting should be made as soon as possible or as needed. It is also expected that occasionally a notification or set of event progress reports for an event might be removed from the ODOT SSO program event investigation process, because it is later determined to be outside of the reporting criteria.

This discussion of safety-related events that require notification, investigation, and reporting will be further revised to only the Part 674 criteria and state requirements after FTA TSO certifies the ODOT SSO program, as an update to this SSOPS.

Initial Telephone Notification

The Ohio RTAs are required to contact one of the ODOT SSO program staff listed in Procedure SSO-003. The initial phone call is intended for the RTA staff to provide any known facts about the safety event that has occurred. A discussion is completed about whether or not the event is required to by notified, investigated, and reported by FTA regulation or state requirements. In some cases, the notification ends with this phone call if it is deemed not required either by FTA or the state. In addition, if it is agreed that the safety event is required by FTA, then the ODOT SSO program staff member will contact FTA TSO with a brief description of the event. In addition, if the RTA safety event is required to be notified by FTA regulation or state requirement, then the ODOT SSO program staff member will also contact the ODOT Traffic Management Center (TMC) with a brief description of the safety event.

Initial Notification Form

For initial notifications, the RTA must provide a follow-up email with an Initial Notification Form (either inside the email text or an attached form) to the ODOT SSO program at the earliest available opportunity after making the initial telephone notification, including the Statewide Traffic Management Center (TMC). The following information must be provided by the RTA in the initial notification of the event. If the information is not pertinent to the event, the item should be identified on the Initial Notification Form as “not applicable” (N/A).

- Name and job title of person reporting and name of RTA
- Event type (fatality, injuries, property damage, evacuation, derailment or other)
- Location, time, and date
- Notification time for ODOT SSO program
- Fatalities
- Injuries
- Rail transit vehicle(s) involved (type, number)
- Other vehicle(s) involved (type, number)
- Property damage estimate
- NTSB, FRA, TSA reportable
- RTA primary person (i.e., Chief Investigator) conducting the investigation (name, title, phone and fax numbers, email address)
- Short description of the event.

The RTA may be required to provide additional information at the ODOT SSO program's request. The RTA should maintain a current list of contact information for all primary and alternate contact personnel, including email addresses, telephone, cell phone, and fax numbers. This information is also located in Procedure SSO-003.

RTA Reportable Event Notifications to Other Federal Agencies

Additional notifications to federal agencies may also be required. The RTAs may be required to notify NTSB or TSA for events listed in 49 CFR Part 840[1] and 49 CFR Part 1580[2], and the specific sections are shown in the following text boxes. For all notifications to other federal agencies (FRA[3], NTSB, and TSA), the ODOT SSO program requires that the RTA share those notifications and any additional information requested by those other federal agencies. This may be as easy as just adding these potential notifications to the Initial Notification Form. For TSA notifications and because the RTA may notify from the security department, a separate Initial Notification Form is acceptable.

49 CFR §840.3 Notification of railroad accidents

The operator of a railroad shall notify the Board by telephoning the National Response Center at telephone 800-424-0201 at the earliest practicable time after the occurrence of any one of the following railroad accidents:

(a) No later than 2 hours after an accident which results in:
  (1) A passenger or employee fatality or serious injury to two or more crewmembers or passengers requiring admission to a hospital
  (2) The evacuation of a passenger train
  (3) Damage to a tank car or container resulting in release of hazardous materials or involving evacuation of the general public
  (4) A fatality at a grade crossing

(b) No later than 4 hours after an accident which does not involve any of the circumstances enumerated in paragraph (a) of this section but which results in:
  (1) Damage (based on a preliminary gross estimate) of $150,000 or more for repairs, or the current replacement cost, to railroad and non-railroad property
  (2) Damage of $25,000 or more to a passenger train and railroad and non-railroad property.

(c) Accidents involving joint operations must be reported by the railroad that controls the track and directs the movement of trains where the accident has occurred.

(d) Where an accident for which notification is required by paragraph (a) or (b) of this section occurs in a remote area, the time limits set forth in that paragraphs shall commence from the time the first railroad employee who was not at the accident site at the time of its occurrence has received notice thereof.

[1] Available at http://www.gpo.gov/fdsys/pkg/CFR-2011-title49-vol7/pdf/CFR-2011-title49-vol7-part840.pdf

[2] Available at http://www.gpo.gov/fdsys/pkg/CFR-2011-title49-vol9/pdf/CFR-2011-title49-vol9-part1580.pdf

[3] FRA notification requirements for commuter rail or shared track are 49 CFR §225.9, §233.5, and §234.7, if applicable.

49 CFR §1580.203 Reporting significant security concerns

(a) Applicability. This section applies to:
  (1) Each passenger railroad carrier, including each carrier operating light rail or heavy rail transit service on track that is part of the general railroad system of transportation, each carrier operating or providing intercity passenger train service or commuter or other short-haul railroad passenger service in a metropolitan or suburban area (as described by 49 U.S.C. 20102), and each public authority operating passenger train service.
  (2) Each passenger railroad carrier hosting an operation described in paragraph (a)(1) of this section.
  (3) Each tourist, scenic, historic, and excursion rail operator, whether operating on or off the general railroad system of transportation.
  (4) Each operator of private cars, including business/office cars and circus trains, on or connected to the general railroad system of transportation.
  (5) Each operator of a rail transit system that is not operating on track that is part of the general railroad system of transportation, including heavy rail transit, light rail transit, automated guideway, cable car, inclined plane, funicular, and monorail systems.

(b) Each person described in paragraph (a) of this section must immediately report potential threats and significant security concerns to DHS by telephoning the Freedom Center at 1-866-615-5150.

(c) Potential threats or significant security concerns encompass incidents, suspicious activities, and threat information including, but not limited to, the following:
  (1) Interference with the train or transit vehicle crew.
  (2) Bomb threats, specific and non-specific.
  (3) Reports or discovery of suspicious items that result in the disruption of rail operations.
  (4) Suspicious activity occurring onboard a train or transit vehicle or inside the facility of a passenger railroad carrier or rail transit system that results in a disruption of rail operations.
  (5) Suspicious activity observed at or around rail cards or transit vehicles, facilities, or infrastructure used in the operation of the passenger railroad carrier or rail transit system.
  (6) Discharge, discovery, or seizure of a firearm or other deadly weapon on a train or transit vehicle or in a station, terminal, facility, or storage yard, or other location used in the operation of the passenger railroad carrier or rail transit system.
  (7) Indications of tampering with passenger rail cars or rail transit vehicles.
  (8) Information relating to the possible surveillance of a passenger train or rail transit vehicle or facility, storage yard, or other location used in the operation of the passenger railroad carrier or rail transit system.
  (9) Correspondence received by the passenger railroad carrier or rail transit system indicating a potential threat to rail transportation.
  (10) Other incidents involving breaches of the security of the passenger railroad carrier or the rail transit system operations or facilities.

RTA Hazardous Conditions Notifications to the ODOT SSO Program

In the event the RTA determines that a risk monitoring activity or risk assessment has identified a significant hazard that is "unacceptable" using the criteria and assessment process in its SSPP, the RTA must notify the ODOT SSO program as soon as practical of a determination of a significantly unsafe or hazardous condition.

Based on risk monitoring activities (as discussed in section 1 of this SSOPS), the ODOT SSO program may request that certain events that are not reportable for the FTA SSO program become reportable to the ODOT SSO program. Examples of these events have been notification and reporting of all evacuations of rail vehicles if the passengers are de-boarded to the track level without a rescue train in close proximity and all track or catenary maintenance related issues that cause an in-service train to go out of service. These issues of interest to the ODOT SSO program will be communicated to each RTA in a formal change to Procedure SSO-003. Discontinuing this additional notification and reporting will also be communicated to each RTA by a revision to the procedure.

Notification of hazards and requested additional reportable events for the ODOT SSO program should follow the notification process discussed above including the two (2) hour time limit, when possible.

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Section 7. Accident Investigations

By SSO regulation and the ORC, the ODOT SSO program is responsible for all reportable event investigations at each RTA. However, in nearly every investigation, the RTA will be the lead investigator and complete the notification, investigation, and report on behalf of the ODOT SSO program. The RTA must have appropriately trained and competent safety professionals that can provide capabilities for the purposes of performing the event investigations and providing standardized investigation reports for the ODOT SSO program (as well as for internal RTA needs and requirements).

49 CFR §674.25 Role of the State safety oversight agency

(c) An SSOA has primary responsibility for the investigation of any allegation of noncompliance with a Public Transportation Agency Safety Plan. These responsibilities do not preclude the Administrator from exercising his or her authority under 49 U.S.C. 5329(f) or 49 U.S.C. 5330.

(d) An SSOA has primary responsibility for the investigation of an accident on a rail fixed guideway public transportation system. This responsibility does not preclude the Administrator from exercising his or her authority under 49 U.S.C. 5329(f) or 49 U.S.C. 5330.

49 CFR §674.27(a)(7) - Investigations

Investigations. The SSO program standard must identify thresholds for accidents that require the RTA to conduct an investigation. Also, the program standard must address how the SSOA will oversee an RTA's internal investigation; the role of the SSOA in supporting any investigation conducted or findings and recommendations made by the NTSB or FTA; and procedures for protecting the confidentiality of the investigation reports.

49 CFR §674.35 Investigations

(a) 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. If an SSOA requires an RTA to investigate an accident, the SSOA must conduct an independent review of the RTA's findings of causation. In any instance in which an RTA is conducting its own internal investigation of the accident or incident, the SSOA and the RTA must coordinate their investigations in accordance with the SSO program standard and any agreements in effect.

(b) Within a reasonable time, an SSOA must issue a written report on its investigation of an accident or review of an RTA's accident investigation in accordance with the reporting requirements established by the SSOA. The report must describe the investigation activities; identify the factors that caused or contributed to the accident; and set forth a corrective action plan, as necessary or appropriate. The SSOA must formally adopt the report of an accident and transmit that report to the RTA for review and concurrence. If the RTA does not concur with an SSOA's report, the SSOA may allow the RTA to submit a written dissent from the report, which may be included in the report, at the discretion of the SSOA.

(c) All personnel and contractors that conduct investigations on behalf of an SSOA must be trained to perform their functions in accordance with the Public Transportation Safety Certification Training Program.

(d) The Administrator may conduct an independent investigation of any accident or an independent review of an SSOA's or an RTA's findings of causation of an accident.

Note that Part 674.25(c) and (d) describe that the ODOT SSO program is responsible for investigations of noncompliance of the Agency Safety Plan and for accidents at the RTAs. These

two regulatory requirements account for both the investigations required based on the notification regulatory requirement and the state required topics to be investigated.

Investigations

Reportable events, ODOT SSO program additional reportable events, and hazardous conditions that will have investigations and reports developed for the ODOT SSO program will have been notified and are described/listed in SSOPS Section 6. The reportable events are generally safety-related, but could also be security-related. In all cases, the RTA will be the lead investigator at least initially even if there is a need for the ODOT SSO program, FTA, or the NTSB to lead the investigation. Since the RTA will be the lead investigator, it is required that the RTA has investigation procedures that follow industry practice for investigations and are reviewed, approved, and adopted by the ODOT SSO program. These procedures have been designated a minimum safety standard and tracked for updates, as well as following the transit industry standard from the American Public Transportation Association (APTA).

- *Rail Transit Accident/Incident Investigation,* APTA RT-OP-S-002-02 Rev. 2, March 2012, http://www.apta.com/resources/standards/Documents/APTA-RT-OP-S-002-02.pdf.

The ODOT SSO program staff may go to an RTA-led investigation as a resource or observer depending on the severity of the event that caused the investigation. In all cases, when the ODOT SSO program staff intends to go to an RTA investigation, the RTA will be notified and the ODOT SSO program staff will coordinate with the RTA staff. Only under unusual circumstances will the ODOT SSO program staff take over and lead the investigation. An example might be if the RTA safety department is conflicted from leading the investigation. In the cases where the ODOT SSO program staff lead or participate in the investigation, the ODOT SSO program staff will follow the RTA's investigation procedures as approved and adopted and reporting will follow the process described in this section. Appendix L describes the ODOT SSO program procedures for participating or leading an investigation. First and foremost, the ODOT SSO staff going onsite for the investigation will follow all safety practices and procedures of the RTA. In addition, if the ODOT SSO program staff takes over an investigation, the RTA will continue to be included in the investigation at least as a resource.

The ODOT SSO program investigators are required to be trained according to the FTA Safety Certification Training Program and the RTA RWP plan and other applicable procedures and requirements. The RTA investigators are also required to have the appropriate training and experience for performing these investigations at the RTA. Also note that the expectation is that the investigation team will include the appropriate rail system expertise to successfully and thoroughly investigate the safety event that has occurred.

If the FTA decides to go onsite at the RTA and take over an investigation, the RTA will support that FTA investigation, as required. If the NTSB decides to go onsite at the RTA and take over an investigation, the RTA will support that NTSB investigation, as required. The ODOT SSO program staff intends to also go onsite to support the RTA, FTA, and/or the NTSB as a resource or observer. Both the RTA and the ODOT SSO program staff will follow the requirements and rules of the FTA or NTSB investigation. The ODOT SSO program and the RTA will review (and comment on) the FTA or NTSB findings, draft and final reports, and the RTA will develop

CAPs to implement any findings/recommendations, as appropriate and agreed to by the ODOT SSO program.

Investigation Progress and Final Reports

The APTA standard indicates that the purpose of accident/incident investigation is to gather and assess facts in order to determine cause(s); and to identify corrective measures to prevent recurrence. Accident/incident investigation is not intended to affix blame, or subject people to liability for their actions, or to recommend disciplinary action. This purpose statement is consistent with FTA's transit-specific SMS.

The accident/incident investigation outcomes or objectives and the data and information collection onsite and offsite the scene need to address the following:

- **Safety Performance of the Rail Operator** – before, during, and after the event being investigated.
- **Safety Performance of the controller and Field Supervision (or others responding to the event)** – before, during, and after the event being investigated.
- **Securing the train/scene of the event and assuring there are no additional hazards** – need to assess the safety performance of those involved in this critical activity including the Rail Operator, Controller, Field Supervision, and any additional RTA personnel responding to the event. An example is the performance and following procedure and/or command to lower the pantograph or removing OCS power. This also includes control of any train movement or single-tracking.
- **Safety Performance of any Passenger Evacuation** – this may be at a platform or on the right-of-way (ROW) to a platform; special attention should be given to control of an evacuation on the ROW (other RTA trains, freight rail traffic, if nearby) and passengers with disabilities.
- **Consideration of future prevention of the event and/or any additional capabilities that would increase safety performance and emergency response.**

The above topics need to be evaluated from a safety performance perspective, including individuals and the organization, for:

- Staff recognizing the event or a potential event,
- Following procedures,
- Problem-solving, and
- Communication and coordination.

An analysis is required to develop the primary cause and contributing factors, typically based on the outcome of completing the above outcomes and objectives. Typical corrective actions are training/retraining, changing or adding procedures, awareness information (bulletins, orders, etc.) and activities, and/or adding/enhancing capabilities.

As an investigation proceeds from notification (Initial Notification Form), start of investigation, and completion of the investigation, the ODOT SSO program requires progress and final reports as follows:

- An initial facts report within one working day, which includes all key information regarding the event compiled at the scene by the RTA
- A status report identifying the preliminary cause of the event, once this preliminary cause is established, and updates of progress every 30 days until the draft final investigation report is submitted, including CAPs with assignments and due dates

The ODOT SSO program requires that the RTA investigation reports be standardized, and include at least the following topics (or as needed based on the event and investigation):

Investigation Report General Outline

- Event description
- Notification, Incident Response, and Incident Command
- Initiating Event
- Immediate Corrective Actions
- Operator Information – Fatigue Evaluation and Training
- Investigation
    - Operator event report
    - Field supervision report
    - Employee record/history
    - Post-accident safety inspection
    - Video analysis
    - Communications analysis
- Findings, Potential Causal Factors, and Recommendations (CAPs)
- Investigator
- Date of Report
- Distribution

If the ODOT SSO program staff is the lead investigator, progress and investigation reports will follow the same process and content as described in this section. The RTA can provide input and comments based on the progress and investigation reports, before the investigation report is finalized. This may require a meeting between the ODOT SSO program and RTA staff to resolve any discrepancies and comments.

Note that Part 674 has added clarity for the responsibilities of the ODOT SSO program in terms of accident investigations and reporting – 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. If an SSOA requires an RTA to investigate an accident, the SSOA must conduct an independent review of the RTA's findings of causation. In any instance in which an RTA is conducting its own internal investigation of the accident or incident, the SSOA and the RTA must coordinate their investigations in accordance with the SSO program standard and any agreements in effect.

Figure 3 shows the process for approval and adoption of RTA draft final investigations including the CAPs. For RTA-led investigations, the RTA will submit the progress reports and then a draft final investigation report (when completed) to the ODOT SSO program, which will review the

report and either adopt and approve it, or require specific additional information from the RTA. The ODOT SSO program has ORC requirements to protect investigation-related and audit-related information from automatic public release. If revisions to the draft final investigation report are required, the time frame for revising the report will be determined jointly by the ODOT SSO program and the RTA, on a case-by-case basis. The revisions to an investigation report might be due to incomplete information or issues with having CAPs that match and address all root causes for the event (discussed further in SSOPS Section 8 regarding CAPs). After the ODOT SSO program provides adoption and approval of the investigation report (via formal letter), the final report (no longer draft final) will serve as the formal ODOT SSO program investigation document.

ODOT SSO Program Investigations/Inspections

As part of ongoing risk monitoring, the ODOT SSO program intends to conduct independent investigations/inspections of issues that have been identified either by the RTA or from data/information tracking and analysis (risk-based, data-driven). The ODOT SSO program will inform and schedule with the RTA for any investigation, inspections, and planned on-site interviews, discussions, or inspections. These investigations/inspections will always include appropriate RTA staff such as for safely inspecting track or catenary locations. If during these onsite investigations/inspections, a concern arises that constitutes an immediate threat to safety on the rail system, the RTA staff and management will be required to respond immediately and appropriately to reduce that safety hazard to an appropriate level. Any issues or findings will be provided to the RTA in writing as a request for explanation from the RTA of appropriate risk controls or mitigations. Any CAPs needed will be developed according to standard procedures and as discussed in SSOPS Section 8.

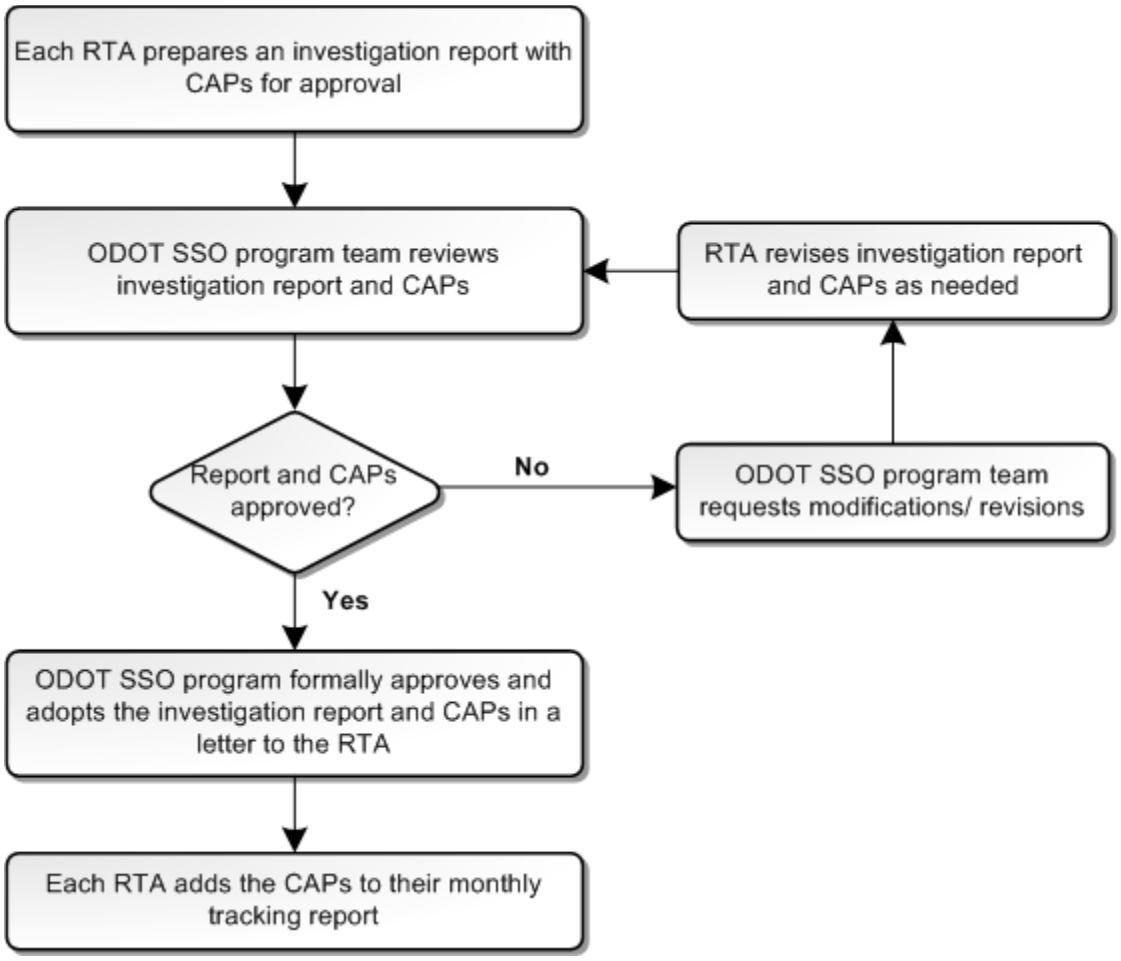

Figure 3. Investigation Report and CAPs Approval Process

Section 8. Corrective Actions

For the ODOT SSO program, corrective action plans (CAPs) are developed for the following activities: investigation reports (from RTA, ODOT SSO program, FTA, or NTSB), internal safety audits, and three-year reviews and audits (from the ODOT SSO program or FTA triennial audit of the ODOT SSO program). CAPs may also be developed from other sources such as hazard identification and analyses, risk assessments, and risk monitoring by the RTA or the ODOT SSO program. The sources of all of these CAPs have already been discussed in the previous sections of this SSOPS.

49 CFR §674.27(a)(8) – State safety oversight program standards
Corrective Action Requirements. The program standard must explain the process and criteria by which the SSOA may order an RTA to develop and carry out a Corrective Action Plan (CAP), and a procedure for the SSOA to review and approve a CAP. Also, the program standard must explain the SSOA's policy and practice for tracking and verifying an RTA's compliance with the CAP, and managing any conflicts between the SSOA and RTA relating either to the development or execution of the CAP or the findings of an investigation.

49 CFR §674.37 Corrective action plans
(a) In any instance in which an RTA must develop and carry out a CAP, the SSOA must review and approve the CAP before the RTA carries out the plan; however, an exception may be made for immediate or emergency corrective actions that must be taken to ensure immediate safety, provided that the SSOA has been given timely notification, and the SSOA provides subsequent review and approval. A CAP must describe specifically, the actions the RTA will take to minimize, control, correct, or eliminate the risks and hazards identified by the CAP, the schedule for taking those actions, and the individuals responsible for taking those actions. The RTA must periodically report to the SSOA on its progress in carrying out the CAP. The SSOA may monitor the RTA's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the SSOA deems necessary or appropriate.
(b) In any instance in which a safety event on the RTA's rail fixed guideway public transportation system is the subject of an investigation by the NTSB, the SSOA must evaluate whether the findings or recommendations by the NTSB require a CAP by the RTA, and if so, the SSOA must order the RTA to develop and carry out a CAP.

Although Part 674 indicates that the RTA cannot carry out a CAP prior to approval by the SSOA, the ODOT SSO program provides permission here/in this SSOPS for the RTA to initiate CAPs as the RTA determines appropriate without our permission. However, the ODOT SSO program will provide an independent review of the RTA CAPs and offer requests for any changes or additional CAPs needed, along with formal approval of each CAP developed. If there is a dispute regarding a CAP between the ODOT SSO program and an RTA, the ODOT SSO program is the authority in this process; however, the RTA is always encouraged to explain their position and the ODOT SSO program intends to be reasonable. At the end of these discussions, the ODOT SSO program has the final approval and authority.

Each CAP must identify:

- The hazard or programmatic deficiency
- The action to be taken by the RTA;
- An implementation schedule
- The individual(s) and department(s) responsible for the implementation
- Any other critical information, such as interim/short-term steps taken while awaiting longer-term mitigations to be implemented.

Depending on the source of the CAP, a separate development, review, and approval process has been defined including for investigations (Section 6), internal safety audits (Section 4), and triennial reviews and audits by the ODOT SSO program (Section 5). Each of these processes for the different sources of CAPs includes a process for the ODOT SSO program to negotiate changes to proposed CAPs and addition of CAPs, as needed, as well as approval of the CAPs. The ODOT SSO program may request changes to or additions of CAPs based on root causes of the event or programmatic/organizational deficiencies identified, and whether or not the CAPs fully resolve the issues identified based on experience from risk monitoring or previous CAPs that were indicated as implemented. The ODOT SSO program expects that the RTA CAP assignments have agreement with the responsible parties regarding content and due date for any CAP. Should there be a disagreement with the content and/or due date for any CAP developed by Safety for the ODOT SSO program, that disagreement should be noted with the submission of the CAP to the ODOT SSO program.

Any recommendations received from FTA or the NTSB will be developed into CAPs as required or determined jointly by the ODOT SSO program and the RTA to be appropriate. Any recommendations from FTA or the NTSB that apply to the ODOT SSO program will be considered and CAPs developed as needed.

The RTA will maintain a CAP monitoring process and document to be updated and provided to the ODOT SSO program on a monthly basis (described in Section 1). The tracking document should include documentation of monthly updates by individual CAP and any corrective action progress towards closure or revision to the due date (with an explanation of due date changes) until the CAP is closed. The content/scope, person responsible, or due date of each CAP cannot be changed once approved without formal agreement from the ODOT SSO program.

All open or recently closed CAPs will also be discussed at quarterly meetings with the RTA (described in Section 1). When a CAP is ready for closure, the RTA is required to provide the evidence used (or explanation) for closure and the date that closure was achieved. CAPs may also be agreed to be closed as part of the quarterly meetings, and evidence or explanation of closure will be documented as part of those meetings. The CAP closure documentation will be used as part of the ODOT SSO program risk monitoring activity and will be included in the annual internal data and information analysis report (described in Section 1). During the triennial reviews and audits by the ODOT SSO program of the RTA, all of the CAPs (investigations and all audits) during the previous three-year internal audit cycle will be checked/verified (as described in Section 5). Also note that CAP closures may be reviewed during any on-site visits as part of or between quarterly meetings (described in Section 1).

Section 9. Annual Reporting to FTA

The ODOT SSO program completes its annual reporting to the FTA by March 15th of the following year, as required by 674.39 including all of the required information and data. The objective of these reporting requirements is to provide the FTA with information regarding the operation of the ODOT SSO program. All submissions to the FTA must be made electronically using a reporting system specified by the FTA.

- Program standard updates and annual review (per Procedure SSO-001)
- Progress towards completion of requirements for the FTA Public Transportation Safety Certification Training Program
- Data and information submission for each RTA – investigations, CAPs, RTA certification of compliance (including internal audits), Agency Safety Plan updates and evidence of review, and level of effort expended by the ODOT SSO program.
- Triennial audit progress reports and updates
- Certification letter that the ODOT SSO program is in compliance with the SSO Rule.

49 CFR §674.39 – State Safety Oversight Agency annual reporting to FTA

(a) On or before March 15 of each year, an SSOA must submit the following material to FTA:
  (1) The SSO program standard adopted in accordance with §674.27, with an indication of any changes to the SSO program standard during the preceding twelve months;
  (2) Evidence that each of its employees and contractors has completed the requirements of the Public Transportation Safety Certification Training Program, or, if in progress, the anticipated completion date of the training;
  (3) A publicly available report that summarizes its oversight activities for the preceding twelve months, describes the causal factors of accidents identified through investigation, and identifies the status of corrective actions, changes to Public Transportation Agency Safety Plans, and the level of effort by the SSOA in carrying out its oversight activities;
  (4) A summary of the triennial audits completed during the preceding twelve months, and the RTAs' progress in carrying out CAPs arising from triennial audits conducted in accordance with §674.31;
  (5) Evidence that the SSOA has reviewed and approved any changes to the Public Transportation Agency Safety Plans during the preceding twelve months; and
  (6) A certification that the SSOA is in compliance with the requirements of this part.

(b) These materials must be submitted electronically through a reporting system specified by FTA.

49 CFR §674.27(b) – State safety oversight program standards

At least once a year an SSOA must submit its SSO program standard and any referenced program procedures to FTA, with an indication of any revisions made to the program standard since the last annual submittal. FTA will evaluate the SSOA's program standard as part of its continuous evaluation of the State Safety Oversight Program, and in preparing FTA's report to Congress on the certification status of that State Safety Oversight Program, in accordance with 49 U.S.C. 5329.

Each Ohio RTAs are required to provide updates for investigations, audits, and CAPs of all types on at least a monthly basis, so there is no special request of information for this annual submission to FTA. Accuracy of data and information shared between the ODOT SSO program

and the Ohio RTAs is completed on a monthly basis and during quarterly meetings at each RTA. Prior to submission of investigations, audits, and CAPs to FTA, the information is de-identified as described in Procedure SSO-006 and in accordance with state law protection of investigations and audits per ORC 5501.55. In addition, the ODOT SSO program annual program status report is separate from this annual reporting to FTA, and the process/procedure is provided in Procedure SSO-005.