



Rail Transit Safety Review Program (RTSRP)

2021 State Safety Oversight (SSO) Annual Report

July 25, 2022

**PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF RAIL, FREIGHT, PORTS, & WATERWAYS**

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Acknowledgements

In accordance with Title 49 of the Code of Federal Regulations, Part 674.13(a)(7), attached is the Calendar Year 2021 Report of State Safety Oversight Activities for Rail Fixed Guideway Public Transportation Systems in Pennsylvania. The Annual Safety and Security Report for the Rail Transit Safety Review Program (RTSRP) was developed by the Pennsylvania Department of Transportation (PennDOT) – Bureau of Rail, Freight, Ports, and Waterways, State Safety Oversight Division.

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Contents

RTSRP State Safety Oversight Program.....	5
2021 RTSRP Summary.....	6
FTA Coordination.....	6
Program Level Activities.....	7
Establishment of SSO Division.....	7
Internal SSO Program Assessment.....	7
Federal Transit Administration Audit of the Program.....	8
RTSRP Strategic Plan.....	8
Oversight Activities.....	8
Public Transportation Agency Safety Plan (PTASP).....	8
Safety Management Systems.....	9
Safety Certification and Capital Project Oversight.....	9
Safety Training.....	10
PAAC Track Inspection with STV.....	11
Events.....	12
RTSRP Investigation Process.....	12
2021 Reportable Events.....	13
2021 Occurrence Reporting.....	14
Safety Performance Targets.....	15
Safety and Security.....	15
Reviews.....	15
RTSRP Risk Based Inspection Program.....	15
Triennial Audits.....	15

RTSRP Operations and Stations Reviews 17
Corrective Action Plans 17
Security and Emergency Preparedness Efforts..... 19
PAAC Tabletop Exercise..... 20
COVID-19 20
Looking Forward 21

RTSRP State Safety Oversight Program

The Federal Transit Administration (FTA) delegates oversight of rail fixed guideway public transportation systems that operate with federal financial assistance authorized under 49 United States Code Chapter 53 to the states. This structure requires states to designate a state safety oversight agency (SSOA) to fulfill the requirements for state safety oversight (SSO), codified in 49 Code of Federal Regulation (CFR) Part 674, referred to as Part 674 hereafter.

In the Commonwealth of Pennsylvania, the Pennsylvania Department of Transportation (PennDOT) has served as the safety and security oversight entity of rail transit agencies (RTAs) since 1991 – well before the federal mandate was enacted. The PennDOT Rail Transit Safety Review Program (RTSRP) was created in response to a National Transportation Safety Board (NTSB) investigation and the Governor’s recommendation following a deadly Southeastern Pennsylvania Transportation Authority (SEPTA) accident in 1990.

In 2016, the FTA issued Part 674, standardizing SSOAs across the states and requiring financial, legal, operational, and administrative independence from the transit agencies they oversee. Part 674 also enhanced investigative and enforcement authorities and required annual reporting to the Commonwealth of Pennsylvania Office of the Governor. The FTA required certification for this final rule by April 15, 2019; the RTSRP became certified on April 24, 2018, fulfilling the requirements of Part 674.

The RTSRP oversees the Cambria County Transit Authority (CamTran) in Johnstown, Port Authority of Allegheny County (PAAC) in Pittsburgh, and SEPTA in Philadelphia. Information regarding the RTSRP, along with a method to report an allegation of non-compliance to the RTSRP, can be found on the PennDOT website at <https://www.penndot.pa.gov/Doing-Business/Transit/Pages/state-safety-oversight.aspx>. The SSO program is governed through its Procedures and Standards issued by PennDOT’s RTSRP, which is revised annually with input from each of the RTAs. The update to the 2021 Procedures and Standards was more extensive than years prior because the RTSRP incorporated feedback from an internal review of the program by an independent consultant, feedback from peers throughout the SSO community, and comments incorporated from the FTA triennial audit of the RTSRP. The RTSRP partners with covered agencies to conduct proactive safety and security oversight. In addition, the RTSRP utilizes opportunities with each of the RTSRP-covered transit agencies to share effective practices and provide technical assistance and ongoing support in monitoring hazardous conditions and investigating safety events. The RTSRP continues to chair a monthly cross-agency meeting to discuss SSOA activities and initiatives, as well as to encourage sharing rail transit safety and security information and effective practices throughout the Commonwealth. Furthermore, in 2021 the RTSRP initiated a monthly working group between all of the agencies operating inclined planes in the country to discuss challenges and effective practices.

As the SSOA overseeing rail transit in Pennsylvania for the past 30 years, the RTSRP continues to fulfill FTA-required program elements under Moving Ahead for Progress in the 21st Century, which encompasses 49 CFR Parts 672, 673, and 674, as well as advance supplemental safety and security practices and standards in response to the unique aspects of Pennsylvania’s RTAs. The RTSRP assumes oversight responsibility for a range of procedural developments,

evaluation activities, and safety and security programs, and is working with covered agencies on the implementation of safety management systems (SMS) to proactively identify and mitigate hazards, improving the safety and security of their operations.

2021 RTSRP Summary

The RTSRP Procedures and Standards applies to the CamTran Inclined Plane; PAAC Blue Line, Red Line, Silver Line, and Monongahela Inclined Plane, and SEPTA Broad Street Line, Market-Frankford Line, Media-Sharon Hill Line, Norristown High Speed Line, and Subway-Surface Line. As part of its jurisdiction, the RTSRP also oversees dedicated busways and stations and maintenance facilities related to rail transit and busway operations.

Throughout 2021, the RTSRP and CamTran, PAAC, and SEPTA worked collaboratively to continuously improve safety and security. The RTSRP met with agency representatives through formal monthly, quarterly, and annual meetings. The RTSRP also regularly attended meetings hosted by the RTAs to address and monitor safety and security concerns.

RTSRP oversight efforts included reviewing and approving agency safety and security plans; fulfilling Part 672 recertification requirements; implementing or monitoring safety and security certification processes for several capital projects; investigating events; refining a risk-based inspection program; working with agency personnel to implement corrective actions; and engaging in discussions about security and emergency preparedness.

While continuing to follow guidance set forth by the Centers for Disease Control and Prevention (CDC) regarding the coronavirus disease 2019 (COVID-19), the RTSRP was able to significantly increase fieldwork and onsite oversight

activities in 2021. While COVID-19 continued to pose challenges to the oversight program, the RTSRP maintained a strong partnership with covered RTAs, and through a blend of onsite and virtual work, continued ongoing monitoring of compliance with safety requirements under Parts 672, 673, and 674. The RTSRP continued to work with covered RTAs to implement their SMS. The RTSRP also finalized the 2019-2021 triennial audit cycle to evaluate agency compliance with safety and security plans. The RTSRP monitored ongoing safety assurance processes such as the results and actions from the hazard mitigation on PAAC's Silver Line, PAAC's grade crossing improvement project, emergency signage on rail transit vehicles at SEPTA, and began working toward development and implementation of safety risk management expectations and training. Overall, the RTSRP spent 8,527 hours performing oversight activities in 2021. This decrease in performance hours compared to previous years was caused by limitations imposed in response to the COVID-19 pandemic, which restricted RTSRP in-person activities.

FTA Coordination

The RTSRP coordinated with the FTA through monthly calls to share programmatic updates on oversight activities and solicit guidance on regulations, standards, and effective practices; risk-based inspections; and the FTA triennial audit of the RTSRP.

RTSRP and RTA representatives attended the virtual FTA Joint SSO and RTA Workshop in October of 2021 to gain information on the Public Transportation Safety Certification Training Program (PTSCTP), Rail Safety Data, the Transportation Security Administration (TSA), effective working relations between SSOAs and RTAs, capital projects safety oversight, emergency preparedness, accident notification and investigation, and the NTSB.

The RTSRP received and reviewed two safety bulletins published by the FTA, including Safety Bulletin 20-1: End-of-Railcar Door Signage and Messaging and Safety Bulletin 20-2: Inward- and Outward-Facing Image and Audio Recorders. Additionally, the RTSRP collected wheel gauge inspection data from all three agencies and submitted information to the FTA regarding Safety Advisory SA-21-1: Fleet-Wide Inspection of Wheel Gauging on Rail Rolling Stock.

The RTSRP also submitted the annual report to the FTA using the State Safety Oversight Reporting platform, which compiles safety data on SSO activities and records the SSO Program Manager's certification of compliance with applicable regulations.

The partnership between the RTSRP and covered RTAs, along with the FTA coordination, continues to focus on achieving the highest levels of safety and security practicable, benefitting RTA patrons and employees, as well as the public. The following sections of this report provide highlights and trends related to Program level activities, including an internal SSO program evaluation, the FTA triennial audit, and the development of a strategic plan; oversight of SMS implementation; and oversight activities including safety certification oversight, safety training, reportable events and hazardous condition investigations, safety and security reviews such as triennial audits conducted and reviewed, security initiatives, and COVID-19 updates.

Program Level Activities

Establishment of SSO Division

Effective January 16, 2021, Elizabeth (Beth) Bonini became the Division Chief for PennDOT's newly created State Safety Oversight (SSO) Division, which will supervise two new SSO positions and consultant safety contract staff. The creation of this Division and support positions have been a long time in the making, and it demonstrates the Department's commitment to rail safety in Pennsylvania. Ms. Bonini has managed the RTSRP since 2008 and is a World Safety Organization Certified Safety Executive. In addition, Ms. Bonini has a Transit Safety and Security Program-Rail (TSSP) Certification and is in compliance with the Public Transportation Safety Certification Training Program Regulation (PTSCTP), 49 CFR Part 672, as authorized by 49 U.S.C. § 5329(c)(1).

Several attempts were made to fill the two new SSO positions but after several recruitment attempts, PennDOT was not able to attract qualified candidates with the existing salaries. Extensive work is being done to compile SSO employment data throughout the country for the creation of new job specifications with competitive salaries for this work.

Internal SSO Program Assessment

Upon the development of an SSO Division, Ms. Bonini had WSP, a contractor to PennDOT, assess the RTSRP SSO program, focusing on potential compliance issues in meeting FTA regulatory requirements as well as opportunities to

strengthen the SSO program. The WSP team reviewed the RTSRP Procedures and Standards along with covered transit agencies' safety and security programs as described in their PTASPs and SEPPs. WSP also conducted interviews with the RTSRP and covered RTAs.

WSP found the RTSRP SSO program to be strong and well-managed. There were several areas in which WSP pointed out potential FTA compliance issues, and others in which WSP provided areas of opportunity to strengthen the program. The RTSRP addressed relevant concerns in their updated Procedures and Standards, along with other applicable areas of the program.

Federal Transit Administration Audit of the Program

In June 2021, the RTSRP, along with covered RTAs, took part in the FTA's triennial audit of the SSO program. After receiving the draft report from the FTA in December, the RTSRP responded to the FTA with factual corrections and FTA issued the final SSO Audit Report in January 2021. The audit resulted in four findings, which the RTSRP responded with a tracking matrix along with actions taken to address concerns arisen from the audit by March 2022. As of June 2022, three of the four findings have been officially closed by the FTA. The remaining finding will be closed once the RTSRP approves the 2022 PTASPs for each RTA.

RTSRP Strategic Plan

In 2021, the RTSRP developed a strategic plan for the upcoming year to correspond to PennDOT's overall strategic themes and values while incorporating the principles of SMS. The plan includes initiatives and tactics to continue to build relationships and collaborate with covered RTAs to improve

safety throughout the Commonwealth. Additionally, the plan focuses on building the RTSRP and effectively utilizing all available resources while overseeing covered RTAs. Through the coming year, the RTSRP will monitor, evaluate, and report on progress toward the strategic plan.

Oversight Activities

Public Transportation Agency Safety Plan (PTASP)

Throughout 2021, the RTSRP worked with the covered RTAs to ensure compliance with 49 C.F.R § 673.11(a)(5), each transit agency must establish a process and timeline for conducting an annual review and update of the agency's PTASP. The RTAs provided verification that they reviewed its



CY 2021 PTASP and made no changes. The RTSRP provided comments to the RTAs for the CY 2022 PTASP update and discussed PTASP development during monthly, quarterly, and ad hoc meetings with each agency to review the status of their PTASP.

Though the development of the 2021 Procedures and Standards the RTAs acknowledged that further clarification of the Safety Risk Management (SRM) Process §673.25 compliance would be prioritized in the 2022 PTASP update. Under SRM, monitoring non-conformities against baseline requirements helps capture deviations that might detract from the expected effectiveness, or performance, of the safety risk mitigations. This process allows for corrective actions to address the deviations and restore effectiveness of safety risk mitigations.

Safety Management Systems

The RTSRP monthly RTA meetings have a standing agenda item to review the status of SMS implementation at each covered agency. Additionally, each agency met quarterly with the RTSRP throughout 2021; during these meetings, RTAs provided updates on the status of SMS implementation and the RTSRP offered guidance and posed questions. The RTSRP also placed additional focus on SMS during triennial audits. In 2021, the agencies continued to make strides towards implementation of their SMS by continuing to train employees on SMS, implementing software designed to improve trending and data analysis, promoting employee reporting systems, and working toward the Transportation Safety Institute's (TSI's) Transportation Safety and Security Program (TSSP) certifications and PTSCPT certifications. The RTAs are continuing to work towards the implementation of § 673.31 Safety plan documentation that states, "At all times, a transit agency must maintain documents that set forth its Public Transportation Agency Safety Plan, including

those related to the implementation of its Safety Management System (SMS), and results from SMS processes and activities.

The RTSRP continues to support Pennsylvania RTAs in satisfying the requirements promulgated by the FTA. In accordance with Parts 673 and 674, the RTSRP understands that each agency's SMS will be appropriately scaled to its operations, and as such, the RTSRP will be flexible in the review and assessment of each program.

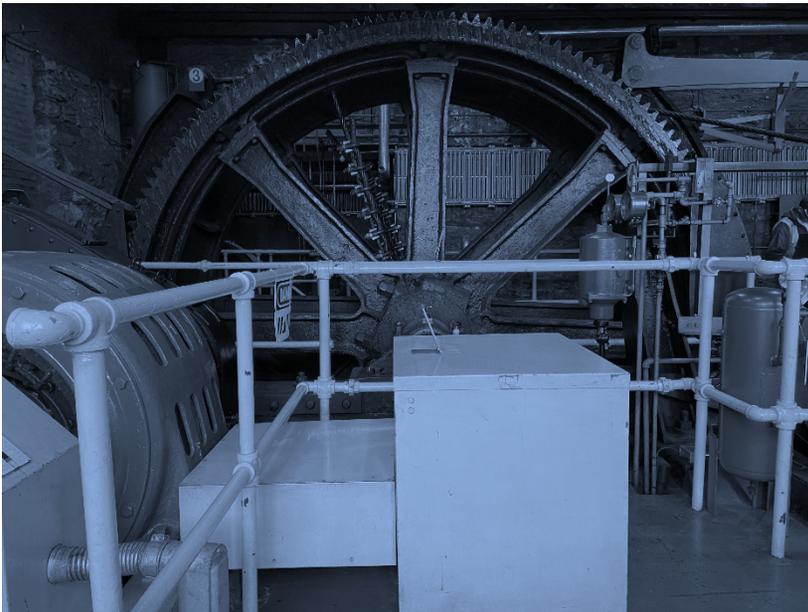
Safety Certification and Capital Project Oversight

Each covered RTA is required to have a safety and security certification (SSC) program to ensure that hazards, threats, and vulnerabilities are adequately addressed prior to the initiation of passenger operations for new starts and major projects to extend, rehabilitate, or modify or replace existing systems, vehicles, or equipment. The RTSRP is responsible for overseeing safety certification at covered agencies and ensuring that SSC plans and documents submitted by an agency are aligned with the agency's program requirements. Safety certification oversight for projects that fall under the criteria specified within the Procedures and Standards has been an initiative of the RTSRP for the last several years. Current SSC initiatives include CamTran's Inclined Plane rehabilitation; PAAC's upgrade to its automatic trip stop system; and SEPTA's City Hall Station redesign, the King of Prussia rail extension, and the implementation of communications-based train control on the Media-Sharon Hill Line. Although none of these projects meet the federal criteria for SSC, the RTSRP recognized the importance of

ensuring safety and security for the capital projects and mandated the formalized process.

Oversight activities include attending design and hazard analysis meetings and reviewing safety certification documentation such as safety and security certification plans; certifiable elements lists; reliability, availability, and maintainability plans; hazard logs; hazard analyses; and failure mode, effects, and criticality analyses. The RTSRP also tracks progress by attending project meetings, SSC committee meetings, and through status updates at monthly and quarterly meetings.

In 2021, the RTSRP also performed a detailed analysis of capital programs at PAAC and SEPTA. The RTSRP worked with the agencies to obtain information and discuss in detail capital projects which were upcoming or in progress to ensure that they were following the change management processes



identified in the agencies' PTASPs. As a result of the analysis, the RTSRP notified PAAC of safety certification requirements of its automatic trip stop capital project. The RTSRP also notified SEPTA of safety certification requirements for its Media-Sharon Hill Line capital project. The PAAC and SEPTA capital projects were not financed with FTA funding.

Safety Training

The RTSRP has long incorporated safety training in its familiarization and training program for staff. Since the release of Part 672, the RTSRP expanded on its training program and formalized many of the activities through the development of an RTSRP Qualifications and Training Program (QTP), building upon the FTA required Technical Training Plan for each RTSRP member. The RTSRP Procedures and Standards requires training for both RTAs and SSOAs, including both federally mandated and RTSRP-specific training.

Members of the RTSRP must complete the PTSCTP and the TSSP training programs through the TSI within three years of their designation, and must recertify every two years. Additionally, members of the RTSRP are required to complete specific requirements for training related to the program and safety and security oversight, to supplement the FTA-required training and familiarize RTSRP personnel with program-wide principles. Furthermore, the RTSRP continues to work with agency personnel to participate in RTA-specific training and become more familiar with each system. In 2021, the RTSRP onboarded three new members of the team as per the RTSRP-specific training described in the QTP. Additionally, one member of the RTSRP completed Overseeing the Safety Management Process for State Safety Oversight Agencies through the TSI.

The RTSRP also works with the RTAs to integrate the requirements for initial and refresher safety training for designated safety critical personnel into existing training programs at the RTAs. As an example of this effort, the RTSRP provided SSO familiarization training to approximately 60 PAAC employees, including personnel from the Maintenance, Maintenance Training, Engineering, Information Technology, and Internal Audit departments. The RTSRP also provided the training to CamTran’s Chief Safety Officer, the Assistant Executive Director, the Facilities Supervisor, and the Inclined Plane Supervisor in 2021.

RTA-led training that the RTSRP completed in 2021 included SEPTA’s roadway worker protection training, SEPTA’s Qualified Protection Employee certification, PAAC’s signal maintainer training, and PAAC’s fire department familiarization training. The RTSRP also attended a training presentation for SEPTA’s Learning Management System.

In 2022, the RTSRP will continue efforts to attend and complete relevant safety, security, operations, and maintenance training at RTAs.

PAAC Track Inspection with STV

In late 2020, the RTSRP was informed of a safety concern issued to PAAC by STV Rail Construction, Inc., highlighting safety concerns found during a special track inspection of the Mount Lebanon Tunnel. After the initial inspection of the Mount Lebanon Tunnel, STV opted to review PAAC’s entire line. The RTSRP joined STV during their assessment of PAAC’s track infrastructure conditions in April 2021. The track inspection was conducted by a Construction Manager at STV and supported by the RTSRP. A PAAC Way Department Supervisor, accompanied the inspectors throughout the week. Daily briefings included the Manager and Assistant Manager of the Way Department.

The RTSRP did not observe any conditions during the inspection that warranted urgent corrective actions by PAAC. The areas requiring the most attention, as noted by the RTSRP, included the central business district tunnel (plinth repair and scaling), the Mount Lebanon tunnel (moisture and scaling) and the Silver Line from Washington Junction to Library Station (due to drainage, subgrade, and wear on the rail joints). These areas were also highlighted in the draft report written by STV. Of note, these concerns were already priorities for PAAC management and are on the capital improvement project list. The RTSRP continued to follow up with PAAC as they monitored and addressed these issues. In an effort to confirm confidence in PAAC’s track maintenance program and ensure the safety of the system, the RTSRP completed a detailed track inspection in 2022.



Events

RTSRP Investigation Process

In accordance with RTSRP Procedures and Standards and Part 674, the RTSRP is responsible for the investigation of safety events, as well as the review of hazard analysis and mitigation activities. Figure 1 depicts the reportable event notification decision tree created by the RTSRP to aid in event

notifications. With few exceptions, the RTSRP delegates investigation authority to covered RTAs, which conduct investigations for adoption by the RTSRP; similarly, the RTSRP requires agencies to identify, report, and analyze hazards in the course of transit operations.

Based on RTA event notifications, investigations, and hazard analyses, the RTSRP monitors a wide range of investigative activities, beginning with the event itself and culminating with the determination of a probable cause and the development of CAPs to mitigate the possibility of recurrence. The RTSRP

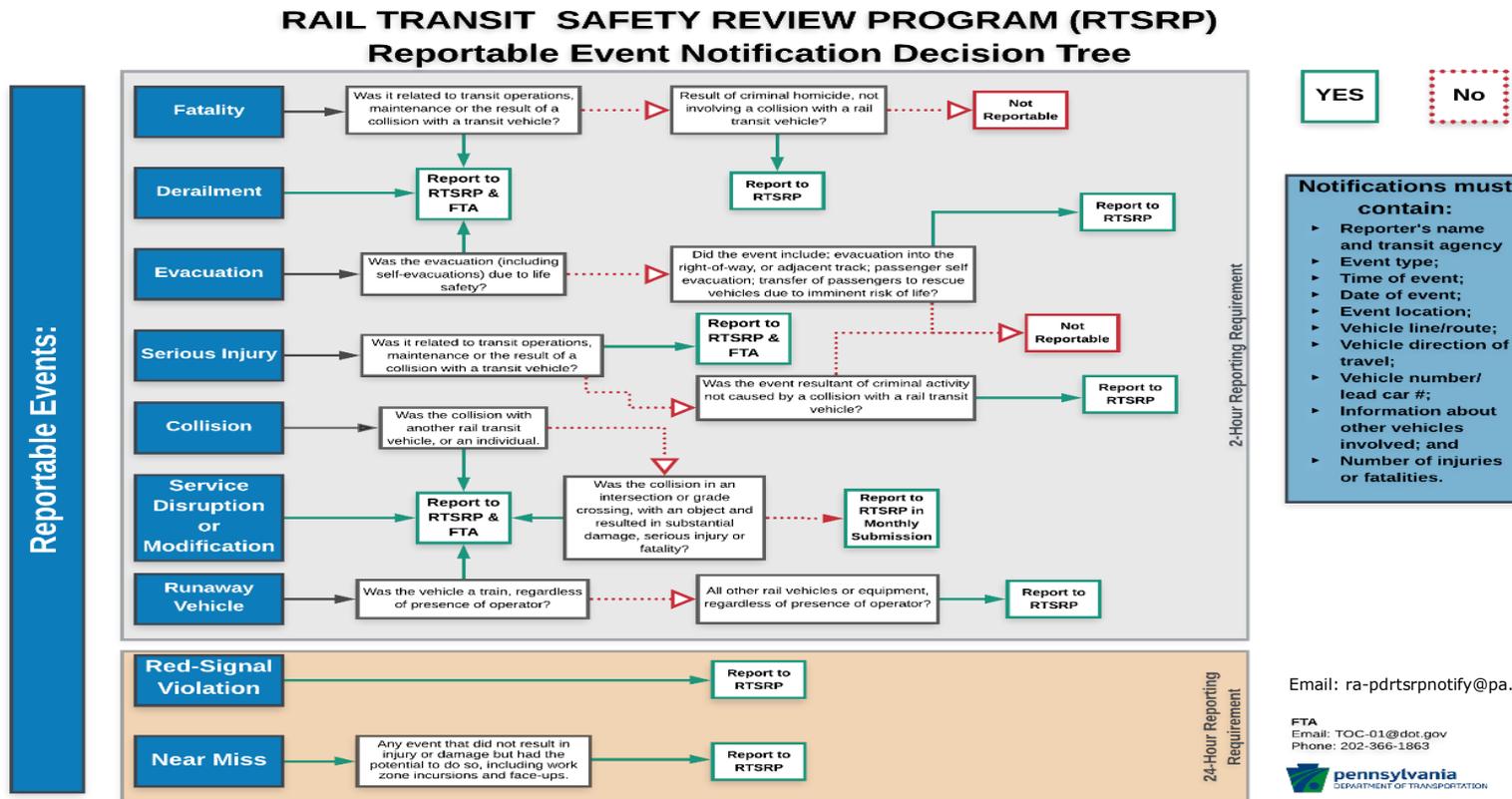


Figure 1: RTSRP Reportable Event Decision Tree

and covered agencies work collaboratively throughout all stages of the investigation process. Typically, the RTSRP receives an initial event notification from an RTA safety representative, at which point the lead RTSRP Event Investigation Coordinator begins working alongside the agency investigator to conduct the investigation. The RTSRP’s process for adopting and closing an investigation includes reviewing the corresponding investigation report and ensuring that information is thorough and accurate. Investigations must include a probable cause and identify CAPs as appropriate. The RTSRP provides a status report to all of the RTAs weekly, which outline, new, adopted and ongoing investigations.

2021 Reportable Events

In accordance with RTSRP and FTA requirements, RTAs must report accidents to the RTSRP within two hours and incidents within 24 hours of their occurrence. PAAC reported 100% of events within the prescribed reporting window, and SEPTA reported 95% of events within the prescribed reporting window.

In 2021, the RTSRP reviewed and adopted 159 event investigation reports from PAAC and SEPTA; no events at CamTran met criteria for reporting as an accident or incident. RTAs had 12.6% fewer reportable events relative to 2020. Figures 2 and 3 depict the reportable event breakdown at PAAC and SEPTA, respectively. Unexpected service shutdowns were the most common reportable event at PAAC, while red signal violations were the most common reportable events at SEPTA. The most common types of accidents/incidents at both SEPTA and PAAC paralleled 2020 data and historical trends.

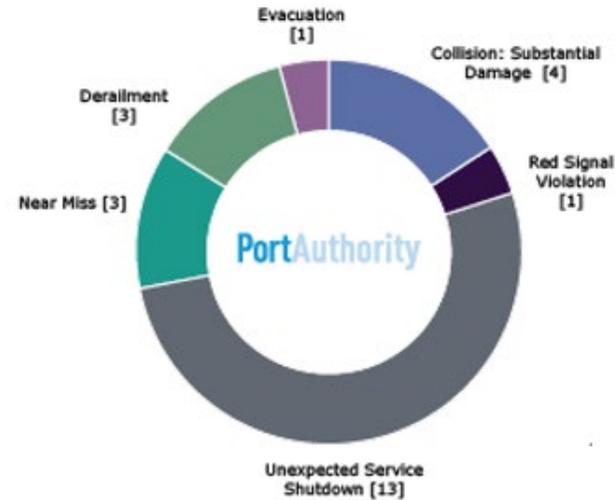


Figure 2: 2021 PAAC Reportable Events

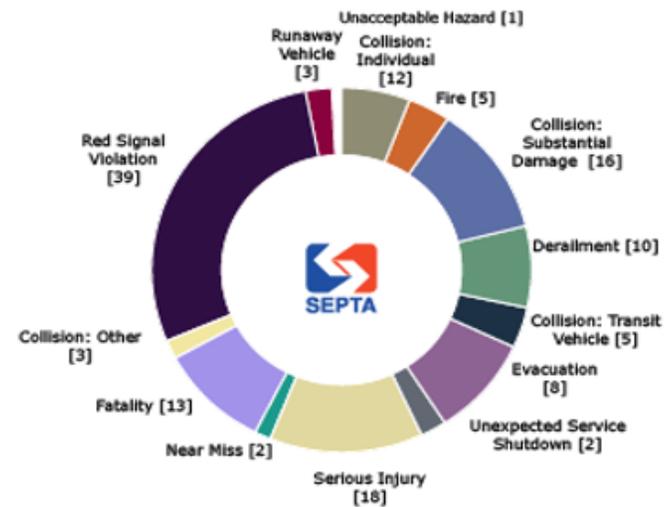


Figure 3: 2021 SEPTA Reportable Events

Table 1 details the assigned probable cause for each event investigation. Operating rules violations or human error accounted for 61 of 159, or 38%, of all reportable accidents and incidents in 2021.

Table 1: Probable Causes of Accidents and Incidents Investigated by the RTSRP in 2021	
Operating rule violation or human error	61
Actions of motorist	23
Imprudent action of patron	17
Other	10
Equipment failure	15
Trespassers	8
Poor Maintenance	12
Pedestrian actions	7
Suicides	6
Slips and Falls	0

In 2021, the RTSRP also continued to participate and/or track NTSB investigations of a Norristown High Speed Line vehicle collision that occurred at SEPTA in August of 2017, a Broad Street Subway Line roadway worker fatality that occurred at SEPTA in July of 2019 and a collision between a CSX train and SEPTA trolley that occurred in December of 2021.

2021 Occurrence Reporting

In 2021, the RTSRP monitored occurrences at covered RTAs based on the reporting thresholds outlined in the RTSRP Procedures and Standards. Though many of the occurrences do not meet the threshold for FTA accident/incident

reporting, occurrences are reportable to the RTSRP in a monthly report. This rigorous reporting standard allows for trend analyses that support the proactive mitigation of more serious safety events.

Table 2 represents the agencies’ reported occurrences to the RTSRP in 2021. The majority of occurrences reported in 2021 (94%) were related to trespassing. Reported hazards dropped approximately 12% from 2020 to 2021. This was largely due to a decrease in trespassing at SEPTA by approximately 11% from 2020 to 2021.

Table 2: Occurrences Reported to the RTSRP in 2021				
	SEPTA	PAAC	CamTran	Total
Trespassing: Intentional	625	133	-	758
Trespassing: Unintentional	152	1	-	153
Collision: Other	1	4	-	5
Elevator/Escalator Injury	26	-	-	26
Unacceptable Hazard	-	1	-	1
Revenue Vehicle Door Event	19	1	-	20
Collision with a Fixed Object	-	-	-	-
Near Miss	3	2	-	5
Total	826	142	-	968

Safety Performance Targets

In 2021, the RTSRP began working with covered RTAs to refine their safety performance targets (SPTs) based on the FTA’s safety performance measures. The RTSRP is continuing this work in 2022 and SPTs will be included in the RTSRP Strategic Plan.

Safety and Security Reviews

RTSRP Risk Based Inspection Program

In 2021, the RTSRP continued to refine a risk-based assessment (RBA) program to direct oversight activities. The program is designed to be an ongoing process using data-driven decision making, in addition to analysis of individual events, to assess the safety and security of RTA maintenance and operations practices. Through the RBA program, the RTSRP proactively identifies potential hazards that require further oversight or investigation, uses event trends to highlight risk, and monitors rules compliance and ongoing maintenance, operations, and safety activities.

A critical component of the RTSRP RBA program is the identification and reporting of key performance indicators (KPIs). In this context, RTSRP KPIs are defined as quantifiable measures used to evaluate success in meeting objectives for performance. KPIs are tracked for each RTA and reported monthly. Figure 4 depicts examples of KPI source data that are used in the RBA program. In 2021, the RTSRP reported on monthly KPIs including rules compliance

violations, CAP status, triennial audit results, event analysis, and red signal violations.

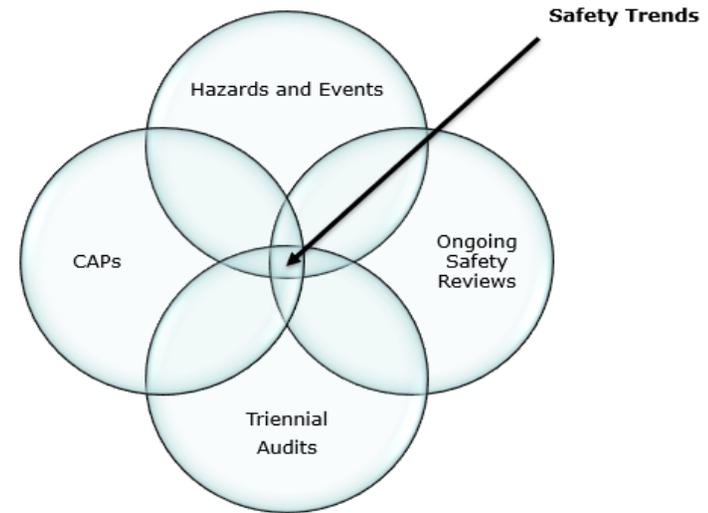


Figure 4: Examples of KPI Source Data

Triennial Audits

The RTSRP performs triennial safety and security audits at each of its covered RTAs on an ongoing basis over a three-year cycle. 2021 marked the third year of the triennial cycle. Triennial audits include a comprehensive document and record review, interviews, and field observations when warranted. While some audits were held virtually in 2021 due to the ongoing COVID-19 pandemic, the RTSRP resumed onsite audits as feasible. RTSRP audits are informed by Pennsylvania requirements, federal regulations, industry effective practices, and focus on compliance with the RTA’s procedures and plans. The triennial audit process is outlined in Figure 5.

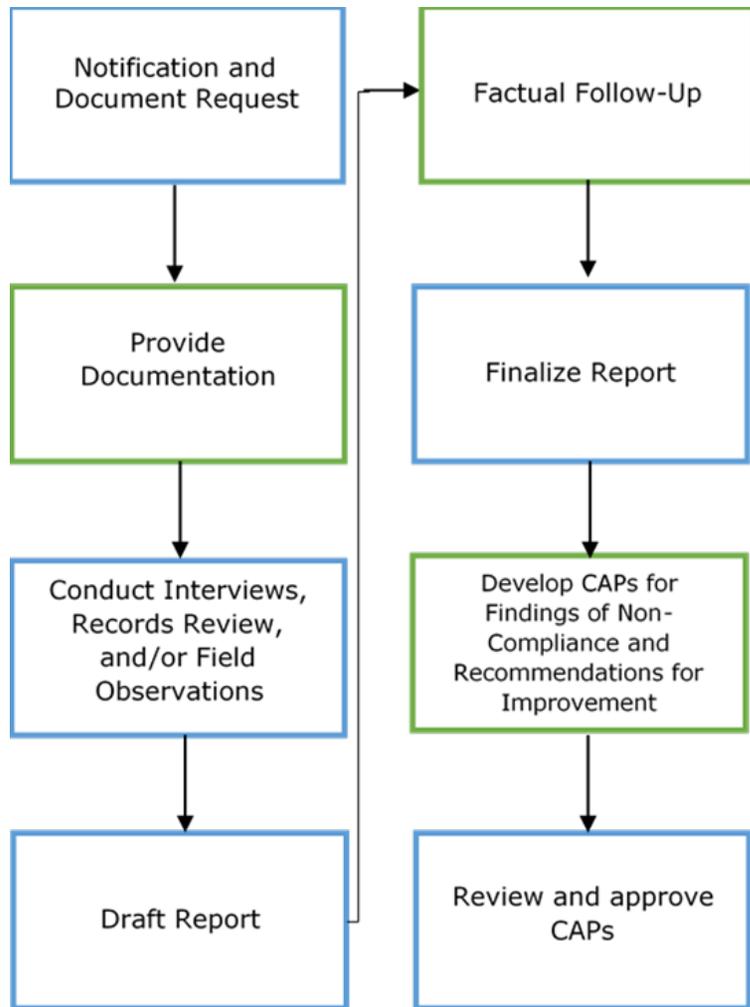


Figure 5: Triennial Audit Process

The process by which audits are conducted remains consistent with prior years; however, specific topics are being audited under the SMS framework. The RTSRP continued to shift towards SMS-based auditing in 2021 and released

updated triennial audit checklists for each audit using the PTASP review checklist as a foundation. Utilizing the SMS checklists will allow the RTSRP to perform Part 674 compliant audits and assist the covered RTAs in identifying any gaps related to SMS.

Audits by the RTSRP may review PTASP or Security and Emergency Preparedness Plan (SEPP) implementation broadly, or they may focus on a narrow range of issues of a more technical matter. In 2021, the RTSRP completed audits of 18 elements at CamTran, 21 elements at PAAC, and 23 elements at SEPTA.

The RTSRP attends or monitors internal safety and security audits at each covered agency and tracks CAPs that arise from these internal reviews. In 2021, the RTSRP oversaw or reviewed 12 internal audits at CamTran, 66 at PAAC, and 18 at SEPTA. Table 3 shows the 2021 audit activity by agency.

Table 3: 2021 Audited Elements			
	CamTran	PAAC	SEPTA
RTSRP Safety Audits	18	21	23
RTSRP Security Audits	0	0	0
Agency Internal Audits	12	66	18

RTSRP Operations and Stations Reviews

The RTSRP operations and stations safety inspection continues to be a large part of the RTSRP ongoing activities to observe compliance with applicable safety rules and identify hazards. Due to limitations imposed in response to the COVID-19 pandemic, operations reviews were suspended at SEPTA January through April, 2021. Operations reviews remained ongoing at PAAC throughout the year. Station reviews continued at both PAAC and SEPTA and were conducted in a manner that allowed for physical distancing.

Table 4 shows the total operations and stations reviews completed for PAAC and SEPTA in 2021.

Table 4: 2021 Operations and Stations Reviews		
	PAAC	SEPTA
Operations Reviews	22	60
Stations Reviews	28	57

Corrective Action Plans

Covered RTAs are required to develop CAPs for various deficiencies and hazards identified through triennial audits, event investigations, hazard reports, rules compliance monitoring, and inspections. All CAPs must be submitted to the RTSRP for review and approval within 30 calendar days of an identified deficiency. Subsequently, the RTSRP is

responsible for reviewing, approving, and verifying implementation. The CAP process is depicted in Figure 6.

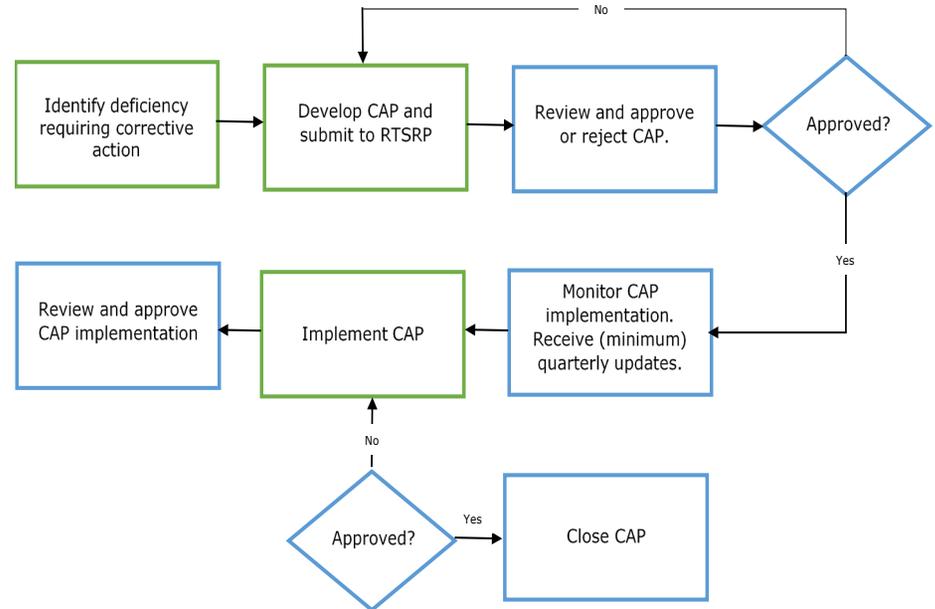


Figure 6: CAP Process

At a minimum, the RTSRP reviews the status of CAPs with RTA safety and security personnel and other responsible departments, as appropriate, on an ongoing basis, but also works with RTAs quarterly to update all CAPs. During these updates, RTA and RTSRP personnel review progress towards the closure of open CAPs and identify documentation required to verify completion. Verification may consist of field reviews, record reviews, photographs, and/or plan, policy, or procedure revision. The RTSRP also works with covered RTAs

to track and oversee findings that have been developed internally or from other sources such as accidents and hazards. In 2021, PAAC developed an agreement with its union and implemented an hours of service standard. The RTSRP commends PAAC for addressing this longstanding concern.

Tables 5, 6, and 7 display the number of opened and closed CAPs per year for CamTran, PAAC, and SEPTA, respectively.

Table 5: CamTran CAPs by Year as of December 31, 2021

	2018 & Before	2019	2020	2021	Total
Open	1	0	1	4	6
Closed in 2021	4	0	0	1	5

Table 6: PAAC Open CAPs by Year as of December 31, 2021

	2018 & Before	2019	2020	2021	Total
Open	4	1	0	5	10
Closed in 2021	3	1	3	5	12

Table 7: SEPTA Open CAPs by Year as of December 31, 2021

	2018 & Before	2019	2020	2021	Total
Open	17	16	2	10	45
Closed in 2021	9	15	5	1	30



The RTSRP tracks all CAPs for each RTSRP-covered transit agency through an electronic SMS database. This database allows the RTSRP to track CAP information and updates in a streamlined manner, as well as manage all forms of electronic verification materials, perform analyses, and disseminate automatic alerts surrounding upcoming closure. From the SMS database, the RTSRP and the RTAs can also review KPIs of CAPs to assess areas where attention may need to be focused. The hazard ratings of open CAPs as of December 31, 2021 are depicted in Table 8, and the sources of open CAPs are shown in Table 9.

Security and Emergency Preparedness Efforts

Although the FTA relinquished its security oversight with the release of Part 674, the RTSRP has opted to maintain security oversight of its covered agencies, while working with the TSA to ensure that RTSRP requirements do not conflict with those of the TSA. Furthermore, emergency



Table 8: Hazard Ratings of Open CAPs as of December 31, 2021

	CamTran	PAAC	SEPTA	Total
High	0	1	0	1
Serious	1	1	5	7
Medium	1	4	39	44
Low	4	1	0	5
No Rating	0	3	1	4

Table 9: Sources of Open CAPs as of December 31, 2021

	CamTran	PAAC	SEPTA	Total
Internal Audit	3	0	7	10
RTSRP Audit	2	8	17	27
Hazard	1	2	16	19
Accident/ Incident	0	0	5	5

preparedness remains an SSO responsibility as part of each agency's safety management policy. RTSRP security and emergency preparedness efforts include auditing the SEPP; observing or participating in emergency drills and exercises; reviewing RTA threat and vulnerability assessments; and monitoring and overseeing any security and emergency preparedness concerns at covered RTAs.

PAAC Tabletop Exercise

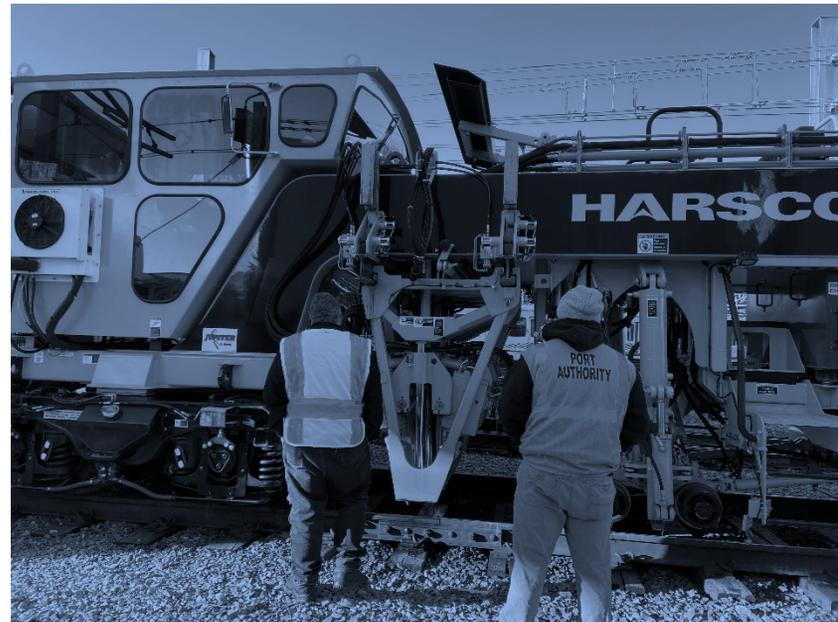
In 2021, the RTSRP participated in a tabletop exercise (TTX) hosted by PAAC which was designed to test the agency's planning, response, and recovery from a large-scale flooding event. Personnel from Operations, Rail Service Delivery, Road Operations, Way, Facilities Systems Maintenance, Systems and Power, Engineering and Technical Support, System Safety, Communications, Customer Service and Transit Police and Security participated in the exercise.

The TTX consisted of multiple modules in which participants were assessed on their ability to interpret meteorological reports, respond to rising water levels, and develop recovery plans for flooding conditions. The exercise was a discussion-based scenario, in which the facilitator led individual participants to respond to specific prompts. PAAC staff responded capably to each prompt and indicated the agency's ability to respond to a flood. At the end of the first day, the participants were asked to think through specific response and recovery actions to discuss the following day.

During the hotwash, the participants and facilitators agreed that PAAC's current management team was knowledgeable and well-equipped to handle a flood scenario. The major area of improvement highlighted by the participants was that the flood plan required revisions to ensure the information management discussed throughout the TTX was fully documented.

COVID-19

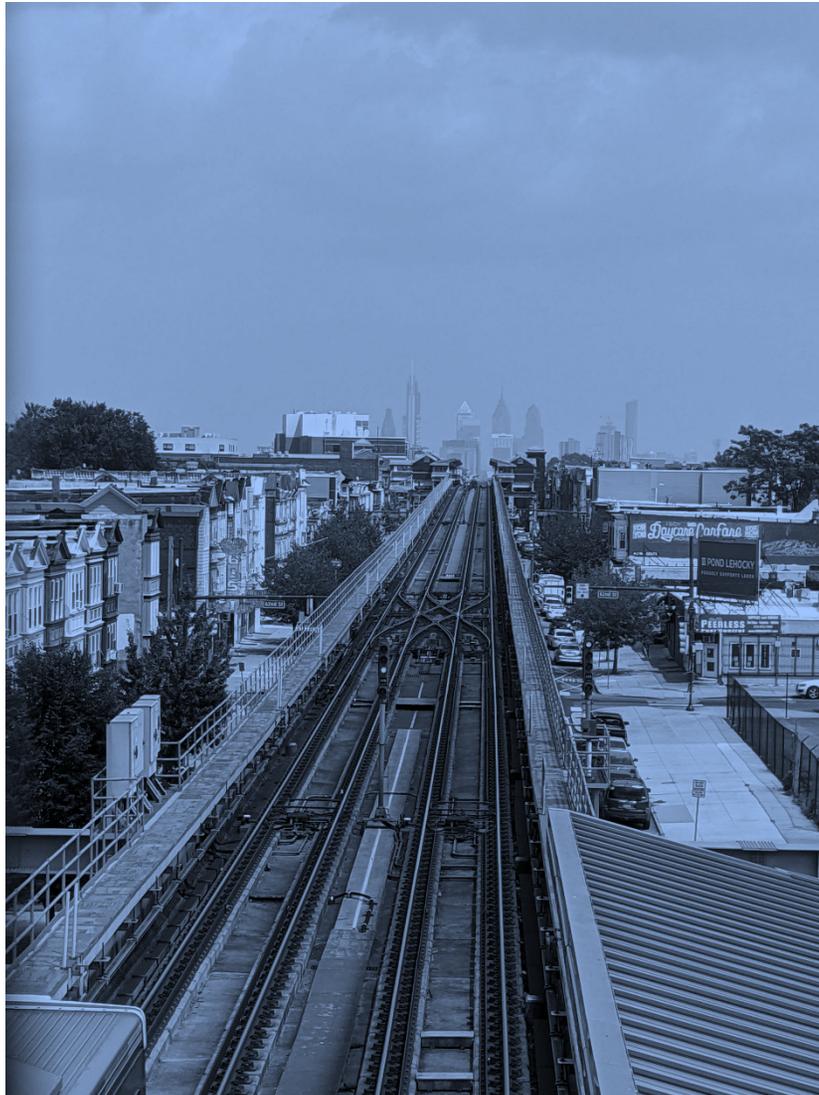
The COVID-19 pandemic required the RTSRP and covered RTAs to continue to adjust oversight and implementation of transit services throughout 2021. While some communication remained virtual, RTSRP fieldwork gradually restarted in 2021, with the resumption of onsite audits, meetings, event investigations, and field reviews. The RTSRP continued to monitor the outbreak as well as federal, state, and local guidelines and continually adjusted project activities as needed.



Looking Forward

In 2022, the RTSRP will continue to work closely with its covered RTAs regarding safety and security initiatives. Focus areas will include SMS implementation, safety certification and reviewing and monitoring agency capital programs, and working with the agencies to improve their PTASPs and hazard management programs. The RTSRP will also continue to work toward implementing its strategic plan, which has been developed to enable the RTSRP to improve overall rail transit safety and security throughout Pennsylvania. Furthermore, through the creation of PennDOT's SSO Division in 2021, which has been years in the making, the Department demonstrated its commitment to rail safety in Pennsylvania well into the future.





PENNSYLVANIA RAIL TRANSIT SAFETY REVIEW PROGRAM

PENNDOT – BUREAU OF RAIL, FREIGHT, PORTS, & WATERWAYS

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