



TO: Performance Oversight Committee
Representative Austin Davis
Representative Lori Mizgorski

FROM: Michelle Zmijanac, Committee Chair

DATE: June 16, 2020

SUBJECT: Performance Oversight Committee – June 18, 2020

The next meeting of the Performance Oversight Committee is scheduled for Thursday, June 18, 2020, being held virtually via WebEx and conference call-in, immediately following the 9:00 a.m. Finance Committee meeting. The preliminary agenda is as follows:

1. Approval of Minutes of the May 21, 2020 Performance Oversight Committee Meeting.
2. Proposed Resolutions:
 - a. Awarding of Bids (Tony Trona)
 - b. Authorization to Enter into Fourth Amendments to Designated Service Agreements with University Pass Program Participants (Mike Cetra)
 - c. Authorization to Enter into Agreements with a Pool of Firms for Investigative Services (Mike Cetra)
 - d. Authorization to Adopt and Implement Port Authority's Public Transportation Agency Safety Plan (Mike Cetra)
 - e. Authorization to Enter into an Agreement to Provide Professional Safety Consulting and Safety Security Management Services (Mike Cetra)

3. Adjourn

cc: Other Port Authority Board Members

PERFORMANCE OVERSIGHT COMMITTEE MEETING

May 21, 2020

The meeting was called to order at 9:00 a.m. in Port Authority's Neal H. Holmes Board Room located on the fifth floor of the Heinz 57 Center with the following in attendance:

Board Committee Members

Michelle Zmijanac, Chair
Representative Lori Mizgorski
Representative Austin Davis
Jeff Letwin

Other Board Member

John Tague
Ann Ogoreuc
Jennifer Liptak

1. Approval of Minutes:

The Committee approved the minutes from the May 21, 2020 Performance Oversight Committee meeting.

2. Proposed Resolutions:

Mr. Trona presented two procurement items and the Committee determined the bids to be in accordance with the Authority's procurement policies and procedures, the prices fair and reasonable, the bidders to be responsible and the bids responsive.

The Performance Oversight Committee agreed to recommend for award the two bids listed in the resolution for the total amount of \$121,809 dollars.

Mr. Huffaker presented the next resolution seeking authorization to establish the fourth-year budget with Transdev Services, Inc. He reported that In April 2017, the Authority entered into a five-year agreement with Transdev to provide professional services to coordinate and administer paratransit services for individuals with disabilities and elderly persons in Allegheny County, also known as ACCESS.

The agreement specifies that a not-to-exceed amount will be established for each fiscal year.

The Performance Oversight Committee agreed to recommend continuing the performance of services by Transdev for the fourth fiscal year for the total not-to-exceed amount of \$2,716,900 for the period July 1, 2020 through June 30 2021.

Mr. Cetra presented the next resolution seeking authorization to adopt the Collective Bargaining Agreement with the International Brotherhood of Electrical Workers, Local 29 covering the terms and conditions of employment for certain Customer Service, Benefits and other personnel of the Authority.

Prior to the expiration of the agreement on April 30, 2020, the Authority engaged in good faith bargaining with IBEW and the Authority and IBEW have agreed on proposed terms and conditions for a short-term amendment to the agreement.

Mr. Cetra noted that IBEW members have ratified the proposed terms and conditions of the amended agreement

The Performance Oversight Committee agreed to recommend approval and ratification of the proposed terms and conditions outlined in Exhibit "A" attached to the resolution effective May 1, 2020 through April 30, 2021.

The final resolution seeking authorization to adopt and implement the FY 2021-22 Internal Audit Work Plan was presented by Mr. Cetra.

He reported that In November 2007, the Board adopted an Internal Audit Department Charter as a statement of policy and expressed commitment to provide financial and operational oversight to the Authority.

In accordance with the Charter, the Authority's Internal Audit Department has conducted various audit and oversight activities over the past several years pursuant to Board approved 18-month Internal Audit Work Plans.

To continue this important oversight, the Performance Oversight Committee agreed to recommend adoption and implementation of the attached FY 2021-22 Internal Audit Work Plan, effective July 1, 2020 through December 31, 2021.

With no further business, the meeting was adjourned.

PROPOSED RESOLUTION

AWARDING OF BIDS

1. COACH REPLACEMENT PARTS – SUSPENSION

This bid was publicly advertised and ebusiness documents were distributed. Three firms accepted the invitation and three bids were received for coach suspension replacement parts over a two-year period.

RECOMMENDATION: That a contract be awarded to the low responsible bidders that submitted responsive bids as follows:

- Gillig LLC. – two items in the estimated amount of \$125,169.00
- The Aftermarket Parts Co. – three items in the estimated amount of \$46,924.20

This price represents a one percent increase over the previous contract prices for these items two years ago. Staff has determined the pricing to be fair and reasonable and consistent with the funds budgeted.

2. PRIMARY SUSPENSION SPRINGS - LRV

This bid was publicly advertised and ebusiness documents were distributed. Two firms accepted the invitation and two bids were received for primary suspension springs for the Authority's LRV Fleet over a three-year period.

RECOMMENDATION: That a contract be awarded to the low responsible bidder that submitted a responsive bid, CAF-USA Inc., in the estimated amount of \$326,400.00.

This price represents a 10 percent increase over the previous contract prices for these items three years ago. Staff has determined the pricing to be fair and reasonable and consistent with the funds budgeted.

3. NON-REVENUE VEHICLES (STATE SCHEDULE CO-STARS)

At its February 2020 meeting, the Board authorized a contract with Bill McCandless Ford for nine cars (sedans) in the amount of \$174,339.00 under the Commonwealth of Pennsylvania Department of General Services Cooperative Purchasing Program (Co-Stars). Although the Authority sent the agreements in early March to be executed by the awarded contractor, the State of Emergency declared by President Trump for the COVID

19 pandemic (as well as corresponding emergency declarations by the governors of most states during the month of March), essentially shut down all United States automotive production. The vehicles approved on this particular portion of the Board's authorization were also at the end of overall scheduled production, and because of the state of emergency, production orders were cancelled, leaving this vehicle order from the Authority unfulfillable by the contractor.

The Authority has determined that a suitable replacement vehicle would be the Sport Utility Vehicles (SUV's) and as already awarded at the February meeting, these same SUV's are still available under the Commonwealth of Pennsylvania Department of General Services Cooperative Purchasing Program (Co-Stars). The Authority wishes to make purchases under the terms and conditions of the respective State Schedule Co-Stars contract indicated below.

The contract is effective through August 8, 2020 and Port Authority wishes to purchase a total of nine vehicles under the terms and conditions of the DGS Co-Stars contracts. These SUV's will replace vehicles that are at least 10 years old and/or have in excess of 100,000 miles and are beyond their useful service life.

RECOMMENDATION: That the award for the nine sedans be rescinded with Bill McCandless Ford and a contract be awarded under the same terms and conditions of PA DGS Co Stars as follows:

- Contract #026-081 – SUV's to Bill McCandless Ford for nine vehicles in the amount of \$219,654.00

Staff has determined the pricing on the Pennsylvania State Schedule to be fair and reasonable and consistent with the funds budgeted. The price is identical to those SUV's awarded at the February meeting.

RESOLUTION

RESOLVED, that recommendations as set forth in the report are accepted and that the chief executive officer or chief financial officer be, and hereby are, authorized and directed to execute such documents on behalf of Port Authority of Allegheny County as shall be required for the entry of proper contracts covering those items recommended for acceptance.

**Port Authority of Allegheny County
Procurement Summary**

June 26, 2020

Item	Description	Number Of Bids	Lowest Responsive Bidder	Award Amount	2nd Bidder Amount	Annual Percentage Change to Previous Purchase
1	Coach Replacement Parts - Suspension	3	Gillig LLC (2 items) The Aftermarket Parts Company LLC (3 items)	\$125,169.00 \$46,924.20	\$129,789.00 \$52,989.30	1% increase
2	Primary Suspension Springs - LRV	2	CAF USA Inc.	\$326,400.00	\$382,416.00	10% increase
3	Non Revenue Vehicles - SUV's (Costars State Schedule)		Bill McCandless Ford	\$219,654.00	n/a	same price

Total Purchases: \$718,147.20

SUMMARY OF RESOLUTION

Authorization to Enter into Fourth Amendments to Designated Service Agreements with University Pass Program Participants

As part of Port Authority of Allegheny County's (Authority) University Pass Program, the Authority is a party to agreements with the University of Pittsburgh of the Commonwealth of Higher Education (Pitt), Carnegie Mellon University (CMU) and Chatham University (Chatham) that provide eligible students, faculty and staff with access to, and use of, the Authority's public transit system in exchange for certain fees paid by Pitt, CMU and Chatham to the Authority.

The current agreement between the Authority and Pitt was entered into on July 1, 2012 for an initial term of five years through June 30, 2017 (Pitt Agreement). Pursuant to prior resolutions of the Authority's Board, Pitt Agreement was extended and is currently set to expire on June 30, 2020.

The current agreement between the Authority and CMU was entered into on August 1, 2012 for an initial term of five years through July 31, 2017 (CMU Agreement). Pursuant to prior resolutions of the Board, CMU Agreement was extended and is currently set to expire on July 31, 2020.

The current agreement between the Authority and Chatham was entered into on July 1, 2012 for an initial term of five years through September 30, 2017 (Chatham Agreement). Pursuant to prior resolutions of the Board, Chatham Agreement was extended and is currently set to expire on September 30, 2020.

Among other terms and conditions, Pitt Agreement, CMU Agreement and Chatham Agreement provide, respectively, that each university pay the Authority a fee of 50 percent of the Authority's base fare per card tap, which is currently \$1.25 per card tap, for eligible university students, faculty and staff utilizing the Authority's public transit system via university-issued identification cards compatible with the Authority's Smart Card-based Automated Fare Collection System.

Per negotiations between the Authority's representatives and representatives for Pitt, CMU and Chatham, respectively, and subject to the Board's approval, the Authority and Pitt have agreed to further extend Pitt Agreement for one additional year from July 1, 2020 through June 30, 2021; the Authority and CMU have agreed to further extend CMU Agreement for one additional year from August 1, 2020 through July 31, 2021; and the Authority and Chatham have agreed to further extend Chatham Agreement for one additional year from October 1, 2020 through September 30, 2021 (collectively, Fourth Amendments).

This resolution authorizes the Authority to enter into Fourth Amendments, in a form approved by counsel.

RESOLUTION

WHEREAS, as part of Port Authority of Allegheny County's (Authority) University Pass Program, the Authority is a party to agreements with the University of Pittsburgh of the Commonwealth of Higher Education (Pitt), Carnegie Mellon University (CMU) and Chatham University (Chatham) that provide eligible students, faculty and staff with access to, and use of, the Authority's public transit system in exchange for certain fees paid by Pitt, CMU and Chatham to the Authority; and

WHEREAS, the current agreement between the Authority and Pitt was entered into on July 1, 2012 for an initial term of five years (Pitt Agreement) and was previously extended through June 30, 2020; and

WHEREAS, the current agreement between the Authority and CMU was entered into on August 1, 2012 for an initial term of five years (CMU Agreement) and was previously extended through July 31, 2020; and

WHEREAS, the current agreement between the Authority and Chatham was entered into on July 1, 2012 for an initial term of five years (Chatham Agreement) and was previously extended through September 30, 2020; and

WHEREAS, among other terms and conditions, Pitt Agreement, CMU Agreement and Chatham Agreement provide, respectively, that each university pay the Authority a fee of 50 percent of the Authority's base fare per card tap, which is currently \$1.25 per card tap, for eligible university students, faculty and staff utilizing the Authority's public transit system via university-issued identification cards compatible with the Authority's Smart Card-based Automated Fare Collection System; and

WHEREAS, per negotiations between the Authority's representatives and representatives for Pitt, CMU and Chatham, respectively, and subject to the Board's approval, the Authority and Pitt have agreed to further extend Pitt Agreement for one additional year from July 1, 2020 through June 30, 2021; the Authority and CMU have agreed to further extend CMU Agreement for one additional year from August 1, 2020 through July 31, 2021; and the Authority and Chatham have agreed to further extend Chatham Agreement for one additional year from October 1, 2020 through September 30, 2021 (collectively, Fourth Amendments).

NOW, THEREFORE, BE IT RESOLVED, that the Authority's chief executive officer, chief financial officer and/or chief legal officer be, and hereby are, authorized to enter into Fourth Amendments, in a form approved by counsel, extending the term of Pitt Agreement, CMU Agreement and Chatham Agreement, each for one additional year, and to take any and all other actions as may be necessary and proper to carry out the purpose and intent of this resolution.

SUMMARY OF RESOLUTION

Authorization to Enter into Agreements with a Pool of Firms for Investigative Services

Description

Port Authority of Allegheny County (Authority) requires a pool of qualified firms to provide external investigative services for the Authority on an as-needed basis (Services). Services include, but are not limited to, providing assistance and support to the Authority in its investigations and will be utilized for substantiation and verification of work-related and non-occupational injuries and illnesses, liability claims and other claims and litigation-related matters. The term of the agreement (Agreement) for each firm will be for a three-year period, with the option to extend the term up to an additional two years at the sole discretion of the Authority.

Evaluation Committee

Consistent with the Authority's Board-adopted Procurement Policy and Procedures for Competitive Negotiations for Professional and Technical Services, an Evaluation Committee (Committee) was assembled to evaluate proposals and recommend the top-rated proposers to perform Services. Committee was comprised of five members representing the Finance, Legal and Human Resources Divisions and Claims Department.

Schedule

Request for Proposals No. 20-05 (RFP) for Services was publicly advertised and an informational meeting was held on March 12, 2020. Six proposals were received by the designated time for proposal submissions on April 9, 2020, and were then distributed to Committee.

Evaluation Process

Committee reviewed and evaluated the proposals utilizing the rating criteria set forth in RFP. Committee determined that interviews were not necessary for the proposers and the proposals submitted by CSI Corporate Security and Investigations, Inc., Specialty Private Investigators, Inc., J.P. Investigative Group, Inc., Command Investigations, LLC, and Gittings Private Investigations & Security, Inc. have been determined to be the highest-rated proposals for the performance of Services.

Summations of the Committee for the top-rated proposers are set forth below:

Selected Firms:

The top five proposers named above all demonstrated good to excellent experience in all major aspects of the required contract services. The firms have good, relevant investigation experience with large companies. The project work plans indicated thorough knowledge and creative workers' compensation and other claims-related investigative techniques to be able to conduct prompt and complete investigations. The proposed project manager for each firm have excellent experience, with many years of focused experience in conducting investigations for workers' compensation, claims and litigation-related matters. The experience of the proposed key personnel for each firm was generally excellent. All five firms' costs were fair and reasonable, and all were in the same competitive price range.

Negotiations

Negotiations have been initiated and are progressing on proposed agreements with the identified firms to perform Services. A total not-to-exceed amount of \$200,000 is recommended for approval to be allocated by the Authority among the firms for services performed on an as-needed basis. Agreement with each firm will be for a three-year period with the option to extend the term of Agreements up to an additional two years at the sole discretion of the Authority.

6/26/20
M. Zmijanac

RESOLUTION

WHEREAS, Port Authority of Allegheny County (Authority) requires the services of a pool of qualified firms to provide external investigative services on an as-needed basis (Services); and

WHEREAS, in order to obtain qualified firms to perform Services, Request for Proposals (RFP) No. 20-05, detailing the required scope of Services, was prepared and publicly advertised; and

WHEREAS, six proposals for RFP were received by the designated time on April 9, 2020 and were distributed to the Authority's Evaluation Committee (Committee); and

WHEREAS, based upon Committee's review and evaluation of the proposals submitted, the proposals submitted by CSI Corporate Security and Investigations, Inc., Specialty Private Investigators, Inc., J.P. Investigative Group, Inc., Command Investigations, LLC, and Gittings Private Investigations & Security, Inc. have been determined to be the highest-rated proposals for the performance of Services; and

WHEREAS, the total not-to-exceed amount of \$200,000 is recommended for approval for Services and will be allocated on an as-needed basis among the identified pool of firms for Services performed during the initial three-year terms of the agreements.

NOW, THEREFORE, BE IT RESOLVED that the chief executive officer and/or chief legal officer be, and hereby are, authorized to enter into an agreement with each of the firms listed above, in a form approved by counsel, to provide Services, for a total not-to-exceed amount of \$200,000, to be allocated on an as-needed basis among the identified firms for Services performed during the initial three year term, with the option to extend the term of the agreements up to an additional two years at the sole discretion of the Authority, and also to take all such other actions necessary and proper to carry out the purpose and intent of this resolution.

SUMMARY OF RESOLUTION

Authorization to Adopt and Implement Port Authority's Public Transportation Agency Safety Plan

Port Authority of Allegheny County (Authority) was organized and exists pursuant to the Second Class County Port Authority Act, as amended, to provide public transportation services in Allegheny County. As a recipient of both federal and state public transit grant funding, the Authority is required to comply with all federal and state laws, regulations and rules.

In accordance with the federal Moving Ahead for Progress in the 21st Century Act (MAP-21), the Federal Transit Administration (FTA) was authorized to establish and enforce a new comprehensive framework to oversee the safety of public transportation throughout the United States. Among various rules issued by FTA following the passage of MAP-21, FTA issued a rule requiring transit agencies to transition from System Safety Program Plans (SSPP) to a more comprehensive Public Transportation Agency Safety Plan (PTASP).

Over the past several months, the Authority's System Safety personnel, in collaboration with the Authority's Chief Executive Officer, senior staff, outside legal counsel and a sub-consultant specializing in safety plan preparation has worked to transition and update the Authority's SSPP to a federally compliant PTASP.

The Authority's proposed PTASP is attached to the resolution as Exhibit "A" and includes the Authority's Safety Management Policy Statement, hazard identification, analysis and management process, safety performance targets and monitoring process, the procedures for identifying and tracking corrective actions through resolution and the manner in which the Authority will promote a culture of safety first and ensure safety training throughout the agency. PTASP will also be reviewed and updated on an annual basis.

PTASP has been reviewed and received preliminary approval of the Pennsylvania Department of Transportation's Rail Transit Safety Review Program with final approval being subject to review and adoption of PTASP by the Authority's Board.

The resolution proposes the adoption and implementation of PTASP and authorizes the chief executive officer, chief legal officer and/or chief safety officer to take all actions necessary and proper to fully implement PTASP. Additionally, the resolution reserves the right to make any material amendments to PTASP to the Board while allowing minor amendments to be made at the discretion of management of the Authority.

RESOLUTION

WHEREAS, in accordance with the federal Moving Ahead for Progress in the 21st Century Act (MAP-21), the Federal Transit Administration (FTA) was authorized to establish and enforce a new comprehensive framework to oversee the safety of public transportation throughout the United States; and

WHEREAS, among various rules issued by FTA following the passage of MAP-21, FTA issued a rule requiring transit agencies that receive federal transit funds such as Port Authority of Allegheny County (Authority) to transition from System Safety Program Plans (SSPP) to a more comprehensive Public Transportation Agency Safety Plan (PTASP); and

WHEREAS, over the past several months, the Authority's System Safety personnel, in collaboration with the Authority's chief executive officer, senior staff, outside legal counsel and a sub-consultant specializing in safety plan preparation has worked to transition and update the Authority's SSPP to a federally compliant PTASP; and

WHEREAS, the Authority's proposed PTASP, which will be reviewed and updated on an annual basis, is attached to the resolution as Exhibit "A"; and

WHEREAS, PTASP has been reviewed and received preliminary approval of the Pennsylvania Department of Transportation's Rail Transit Safety Review Program with final approval being subject to review and adoption of PTASP by the Authority's Board.

NOW, THEREFORE, BE IT RESOLVED, that PTASP attached hereto as Exhibit "A" is approved and adopted and the Authority's chief executive officer, chief legal officer and/or chief safety officer be, and hereby are, authorized to fully implement PTASP and to take any and all other actions necessary and proper to carry out the purpose and intent of this resolution and PTASP.

BE IT FURTHER RESOLVED that any material changes or amendments to PTASP may only be made with the approval of the Board, but the chief executive officer, chief legal officer and/or chief safety officer may authorize organizational updates and other minor amendments that do not materially change PTASP, in a form approved by counsel.

SUMMARY OF RESOLUTION

Authorization to Enter into an Agreement to Provide Professional Safety Consulting and Safety Security Management Services

Description

Port Authority of Allegheny County (Authority) requires a contractor to provide Professional Safety Consulting and Safety Management Systems Services (Services). Services include, but are not limited to safety and regulatory compliance and assistance, accident/incident investigation and reporting, and review and revision of safety plans, programs, rules and procedures. Services shall support the Authority's transition from a System Safety Program Plan to a Safety Management System-based Public Transportation Agency Safety Plan by July 2020 per Federal Transit Administration regulations and related Pennsylvania Department of Transportation Rail Transit Safety Review Program safety standards and procedures. Services will be issued on a work order basis as they are approved to proceed by the Authority. The agreement (Agreement) will be for a three-year period with the option of extending the term of Agreement up to an additional two years at the sole discretion of the Authority.

Evaluation Committee

Consistent with the Authority's Board-adopted Procurement Policy and Procedures for Competitive Negotiations for Professional and Technical Services, an Evaluation Committee (Committee) was assembled to evaluate proposals and recommend the top-rated proposer to perform Services. Committee was comprised of seven members and represented the Legal and Corporate Services, Human Resources, Finance and Operations Divisions.

Schedule

Request for Proposals No. 20-03 (RFP) for Services was publicly advertised and an informational meeting was held on February 6, 2020. Three proposals were received by the designated time for proposal submissions, March 2, 2020, and were distributed to Committee.

Evaluation Process

Committee reviewed and evaluated the proposals utilizing the rating criteria set forth in RFP. Based thereon, Committee determined that interviews were not necessary for the proposers. As a result of the review and evaluation of the proposals received, Committee identified K&J Safety and Security Consulting Services, Inc., as the highest rated proposal to perform Services.

Summations of the Committee for the top-rated proposers are set forth below:

KJ Safety and Security Consulting Services, LLC (K&J):

K&J is a wholly owned certified (in multiple states) DBE, WBE, and SBE that specializes in transportation agencies including Washington Metropolitan Area Transit Authority, Southeastern Pennsylvania Transportation Authority (SEPTA), Charlotte Area Transit System, and Port Authority. K&J has strong experience in local, state, and federal agencies, having been in operation since 2002, and occupies offices in Bushkill and Philadelphia, Pennsylvania. K&J's work plan provided a detailed approach and demonstrated a clear understanding of Port Authority's needs as the plan highlighted critical pieces of safety and security management review, training and certification for transit agencies. Their project work plan will be monitored through a project controls approach that encompasses frequent discussions/communications with the Authority's Technical and Managerial staff, briefing meetings, monthly progress reports, schedule management and quality management. The project organization and management plan further demonstrated a clear and concise understanding of Port Authority's needs, by proposing a process flow chart that highlighted task order procedures from start to finish. K&J's proposed project manager has been awarded the Transit Safety and Security Program certificate in both bus and rail from the Transportation Safety Institute. The Federal Transit Administration has also awarded the project manager with their Public Transportation Safety Certification Training Program certificate. The project manager has served in a management role in a safety capacity in transit agencies since 2001, including several years as a chief safety officer. The project manager's chief level experience is valued by the Authority because it provides the opportunity for specific advice concerning certain situations. The resumes of the key personnel staff were strong, featuring decades of experience in the industry and various safety and security certifications from governing agencies such as the Federal Transit Administration, World Safety Organization, and Transportation Safety Institute, etc. Members of the team also have the certifications as required by RFP. The proposed costs were within the range of the Independent Cost Estimate, and considered fair and reasonable.

ADS System Safety Consulting, LLC (ADS):

ADS has been operating since 2011 and is a certified MBE and a State of Pennsylvania DBE that specializes in high value risk-based system safety and security consulting services. ADS has experience with both large and small agencies, including the likes of the Federal Transit Administration, Federal Aviation Administration, Federal Railroad Administration, and various State Departments of Transportation. ADS is headquartered in Baltimore, MD, but also holds a local office in Huntingdon, PA. ADS submitted a concise work plan that addressed the core points outlined in the Authority's scope of services; however, it was standard for the industry and not as in depth as K&J's work plan. The project management and organization plan is comprised of some key personnel with decades of experience in transit safety, whereas the majority of their key personnel were new to ADS. The team has diverse transit safety certifications and highlights the strength ADS has with rail. The project organizational chart provided a concise view of the hierarchy of the ADS team that would be dedicated to support Services. The project manager has a working knowledge of the Authority's system, however, Committee valued the chief level experienced proposed by K&J. The

proposed costs submitted by ADS was the highest of all proposers, however, it was still within the range of the Independent Cost Estimate and is considered fair and reasonable

Negotiations

Negotiations with K&J Safety and Security Consulting Services, Inc., have been initiated and are progressing on a proposed agreement to perform Services. A total not-to-exceed amount of up to \$860,000 is recommended for approval to be allocated by the Authority on an as-needed basis. Agreement will be for a three-year period with the option to extend the term of Agreement up to an additional two years at the sole discretion of the Authority.

6/26/20
M. Zmijanac

RESOLUTION

WHEREAS, Port Authority of Allegheny County (Authority) requires the services of a contractor to provide professional safety consulting and safety management systems services on an as-needed basis (Services); and

WHEREAS, in order to obtain a qualified firm to perform Services, a Request for Proposals No. 20-03 (RFP), detailing the required scope of services, was prepared and publicly advertised; and

WHEREAS, three proposals were received on March 2, 2020, and were reviewed by the Authority's previously appointed Evaluation Committee; and

WHEREAS, the proposal submitted by K&J Safety and Consulting Services, Inc., has been determined to be the highest rated proposal for the performance of Services; and

WHEREAS, negotiations with K&J Safety and Consulting Services, Inc., have been initiated and are progressing on a proposed agreement to perform Services; and

WHEREAS, a total not-to-exceed amount of up to \$860,000 is recommended for approval.

NOW, THEREFORE, BE IT RESOLVED that the chief executive officer and/or chief legal officer be, and hereby are, authorized to enter into an agreement with K&J Safety and Consulting Services, Inc., in a form approved by counsel, to provide Services in an amount not-to-exceed \$860,000, to be allocated on an as-needed basis through task specific work orders for the initial three-year period of the agreement with the option to extend the term of the agreement up to an additional two years at the sole discretion of the Authority, and also to take all such other actions necessary and proper to carry out the purpose and intent of this resolution.

Port Authority



Public Transportation Agency Safety Plan

July 1, 2020

PTASP - Bridging PAAC Safety to Tomorrow



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Appendix L	49 United States Code 5329(e)

LIST OF ACRONYMS

AE	Accountable Executive
AAR	Association of American Railroad Standards
AED	Automated External Defibrillator
ADA	Americans with Disabilities Act
ANSI	American National Standards Institute
APTA	American Public Transit Association
AREA	American Railway Engineers Association
AREMA	American Railway Engineering and Maintenance-of-Way
ASP	(Public Transportation) Agency Safety Plan
ASTM	American Society for Testing and Materials
ATC	Automatic Train Control
ATP	Automatic Train Protection
ATS	Automatic Trip Stop
BDA	Bidirectional Amplifier
BTO	Bus Traffic Operations
CAF	Construcciones y Auxiliar De Ferrocarriles
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
CDL	Commercial Driver's License
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CIS	Computer Information System
CM	Configuration Management
COO	Chief Operating Officer
CSO	Chief Safety Officer
DBE	Disadvantage Business Enterprise
DHS	Department of Homeland Security
DIMM	Division Information Messaging Monitor
DOR	Daily Occurrence Reports
DOT	Department of Transportation
EEO	Equal Employment Office
EMP	Emergency Management Plan
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ESR	Employee Safety Reporting
FAST Act	Fixing America's Surface Transportation
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FRA	Federal Railroad Administration
FTA	Federal Transit Administration

GAR	Gap Analysis Report
G.P.S.	Global Positioning System
HOS	Hours of Service
HOV	High Occupancy Vehicle
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
IT	Information Technology
JSB	Job Safety Briefing
JTTF	Joint Terrorism Task Force
KPI	Key Performance Indicator
LAN	Local Area Network
LRT	Light Rail Transit
LRV	Light Rail Vehicle
MAP-21	Moving Ahead for Progress in the 21 st Century
MAS	Maximum Allowable Speed
MITP	Maintenance Inspection and Testing Procedure
MSDS	Material Safety Data Sheets
MUTCD	Manual on Uniform Traffic Control Devices
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NRC	National Response Center
NSP	National Safety Plan (49 CFR Part 670)
NTD	National Transit Database
NTI	National Transportation Institute
NTSB	National Transportation Safety Board
OHA	Operating Hazard Analysis
OSFC	Operations Safety Field Committee
OSHA	Occupational Safety and Health Administration
OSSRC	Operations Safety and Security Review Committee
OST	Office of the Secretary of Transportation (USDOT)
PAAC or Port Authority	Port Authority of Allegheny County
PennDOT	Pennsylvania Department of Transportation
PHA	Preliminary Hazard Analysis
PM	Preventative Maintenance
PRTSRP	Pennsylvania Rail Transit Safety Review Program
PTASP	Public Transportation Agency Safety Plan
PTSCTP	Public Transportation Safety Certification Training Program
PTSP	Public Transportation Safety Program
PUC	Public Utility Commission
QA/QC	Quality Assurance/Quality Control
RFGPTS	Rail Fixed Guideway Public Transportation System
ROW	Right-of-Way

RTA	Rail Transit Agency
RTO	Rail Traffic Operations
RTSRP	Rail Transit Safety Review Program
RWP	Roadway Worker Protection
SA	Security Analysis
SCADA	Supervisory Control and Data Acquisition
SCS	Safety Certification Subcommittee
SDS	Safety Data Sheet
SERT	Safety Event Review Team
SSCRC	Safety & Security Certification Review Committee
SEPP	Security and Emergency Preparedness Plan
SHA	Sub-System Hazard Analysis
SOP	Standard Operating Procedures
SMS	Safety Management System
SPT	Safety Performance Target
SRM	Safety Risk Management
SSCS	Safety and Security Certification Subcommittee
SSI	Safety Sensitive Information
SSO	State Safety Oversight
SSOA	State Safety Oversight Agency
SSP	System Security Plan
SSPP	System Safety Program Plan
STV	Small Transit Vehicles
SWAT	Special Weapons and Tactics
TSA	Transportation Security Administration
TSI	Transportation Safety Institute
TSSP	Transit Safety and Security Program
TTW	Train to Wayside Control System
TVA	Threat and Vulnerability Assessment
TWC	Train to Wayside Control
UHC	Unacceptable Hazardous Conditions
U.S.C.	United States Code
USDOT	United States Department of Transportation

FEDERAL REGULATIONS

49 CFR Part 659	Former State Safety Oversight Rule
49 CFR Part 670	National Public Transportation Safety Program Rule
49 CFR Part 672	Public Transportation Safety Certification Training Program Rule
49 CFR Part 673	Public Transportation Agency Safety Plan Rule
49 CFR Part 674	State Safety Oversight Rule

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN
PORT AUTHORITY OF ALLEGHENY COUNTY

TRANSIT AGENCY INFORMATION

TRANSIT AGENCY	PORT AUTHORITY OF ALLEGHENY COUNTY	Heinz 57 Center 345 Sixth Ave, Third Floor Pittsburgh, PA 15222 412-566-5500
BOARD	Jeffrey W. Letwin, Esquire	Board Chair
ACCOUNTABLE EXECUTIVE	Katharine Kelleman	Chief Executive Officer
SMS EXECUTIVE	Burton K. Jennings	Chief Safety Officer
MODES	Multimodal	Light Rail, Incline, Bus, Demand Response
FTA FUNDING TYPES	49 U.S.C. Chapter 53, Sections 5303, 5307, 5310, 5337 & 5339	Metropolitan Planning, Urbanized Area Formula, Enhanced Mobility for Seniors, State of Good Repair, Bus and Bus Rail Facilities

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

APPROVALS

Burton K. Jennings
Chief Safety Officer

Matthew Porter
Chief of Police

Michael Heidkamp
Acting Chief Operating Officer -
Transportation

Donald A. Rivetti
Acting Chief Operating Officer -
Maintenance

Michael J. Cetra
Chief Legal Officer

Katharine Kelleman
Chief Executive Officer

Jeffrey W. Letwin, Chair
Port Authority Board

Date: _____

PLAN REVIEW CERTIFICATION

Name of Entity That Drafted This Plan	Port Authority System Safety Department, with input and assistance from other Port Authority Divisions, JonesPassodelis, PLLC and K&J Safety and Security Consulting Services, Inc.	
Signature by the Accountable Executive	Signature of Accountable Executive	Date of Signature
	Katharine Kelleman Chief Executive Officer	
Approval by the Board	Name of Individual/Entity That Approved This Plan	Date of Board Approval
	Jeffrey W. Letwin Port Authority Board, Chair	
	Relevant Documentation	
	July, 2020 Board Resolution approving and authorization adoption and implementation of PAAC's Public Transportation Agency Safety Plan, Board Assistant Secretary's Office	
Certification of Compliance	Name of Individual/Entity That Certified This Plan	Date of Certification
	Burton K. Jennings Chief Safety Officer	
	Relevant Documentation (Incorporated by Reference)	
	<ol style="list-style-type: none"> 1. Security and Emergency Preparedness Plan (SEPP) - PAAC Transit Police, June 2019 (SSI) 2. Transit Asset Management Plan, V1.0, October 2018 3. Configuration Management Plan, February 20, 2018 4. Preparedness, Prevention and Contingency Plan, December 2015 5. Employee Right-To-Know and Hazardous Waste Awareness, October 2016 6. Track Inspection Standards, V August 2010 	

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

FOREWORD

Port Authority's Public Transportation Agency Safety Plan (PTASP) establishes the requirements for implementing Port Authority's Safety Management System (SMS) policies and practices and supports efficient and effective achievement of Port Authority's overall safety goals and objectives. It applies to every activity of the system life cycle including operation, maintenance and support, modification and disposal, research, design, construction, test and evaluation.

SMS is a formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

SMS offers a proactive method for managing safety that enables agencies to identify and resolve safety concerns and challenges before they result in incidents or accidents. SMS combines established system safety engineering principles with advanced organizational management techniques, and supports continuous improvement in safety performance through a positive safety culture founded on four (4) key components and 11 specific elements:

1. Safety Management Policy

- 1.1. Safety Management Policy Statement
- 1.2. Safety Accountabilities and Responsibilities
- 1.3. Integration with Public Safety and Emergency Management
- 1.4. SMS Documentation and Records

2. Safety Risk Management

- 2.1. Hazard Identification and Analysis
- 2.2. Safety Risk Evaluation

3. Safety Assurance

- 3.1. Safety Performance Monitoring and Measurement
- 3.2. Management of Change
- 3.3. Continuous Improvement

4. Safety Promotion

- 4.1. Safety Communication
- 4.2. Competencies and Training

All Port Authority Division Chiefs, Deputy Chiefs, Directors, Managers, Supervisors, Employees, and Contractors are responsible for the establishment, control, incorporation,

direction, and implementation of the Safety Management System program policies and must assure that all real and potential hazards are identified and eliminated or controlled within the safety risk parameters established in the PTASP.

All Port Authority Division Chiefs, Deputy Chiefs, Directors, Managers, Supervisors, Employees, and Contractors must follow reporting systems and procedures established in the PTASP for investigations and disposition of all hazards and safety incidents, including potentially hazardous conditions not yet involved in an incident.

The PTASP provides a basis of understanding between Port Authority management, employees, contractors, and oversight agencies as to how the Safety Management System program will be accomplished. All Port Authority employees and contractors must comply with the requirements stated in the PTASP.

Katharine Kelleman
Chief Executive Officer

1.0 INTRODUCTION

On July 6, 2012, the President signed into law the *Moving Ahead for Progress in the 21st Century Act* (MAP-21), Public Law 112-141. MAP-21 made several fundamental changes to the statutes that authorize the Federal transit programs at 49 U.S.C. Chapter 53.¹

FTA intends to focus its initial oversight and enforcement efforts on rail transit systems' implementation of and compliance with these requirements. FTA believes that the increased potential for catastrophic accidents, loss of life, and property damage associated with rail transit warrants immediate attention.

To advance a comprehensive approach to safety decision-making, FTA has adopted a Safety Management System (SMS) approach to developing and implementing the National Safety Program, established by MAP-21. Safety management is based on the fact that safety is not an absolute condition—there will always be hazards and risks in public transportation. However, the traditional approach of primarily reacting to accidents by prescribing measures to prevent recurrence alone will not contribute to sustaining and improving public transportation safety. The need for a new approach to addressing public transportation safety has become especially urgent in light of high-profile rail transit accidents.

Modern safety management practices that systematically and proactively identify the factors that contribute to unsafe events and prevent or minimize the likelihood of their occurrence have proven effective in addressing similar concerns in other transportation industries. Such practices call for setting safety goals and objectives, defining clear levels of accountability and responsibility for safety, establishing proactive approaches to managing risks and hazards in the day-to-day activities, risk-based resource allocation, monitoring and evaluating performance towards goals, and continuous learning and improvement. SMS offers a means to prevent public transportation accidents by integrating safety into all aspects of a transit system's activities, including planning, design, construction, operations, and maintenance. SMS builds on the public transportation industry's three decades of experience with system safety by bringing management processes, integrated data analysis, and organizational culture more squarely into the industry's overall risk management framework. SMS is a management approach that provides processes that ensure each public transportation agency, no matter its size or service environment, has the necessary organizational structures, accountabilities, and policies and procedures in place to direct and control resources to manage safety optimally. When systematically applied, the SMS approach provides a set of decision-making tools that allow transit agencies to prioritize safety and sound transit asset management when making informed operating and capital investment decisions.

¹ Department of Transportation Federal Transit Administration. Title 49 C.F.R. Chapter VI, *The National Public Transportation Safety Plan, the Public Transportation Agency Safety Plan, and the Public Transportation Safety Certification Training Program; Transit Asset Management*.

SMS is a formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

SMS offers a proactive method for managing safety that enables agencies to identify and resolve safety concerns and challenges before they result in incidents or accidents. SMS combines established system safety engineering principles with advanced organizational management techniques, and supports continuous improvement in safety performance through a positive safety culture founded on four (4) key components and 11 specific elements:

- **Safety Management Policy**
 - Safety Management Policy Statement
 - Safety Accountabilities and Responsibilities
 - Integration with Public Safety and Emergency Management
 - SMS Documentation and Records
- **Safety Risk Management**
 - Hazard Identification and Analysis
 - Safety Risk Evaluation
- **Safety Assurance**
 - Safety Performance Monitoring and Measurement
 - Management of Change
 - Continuous Improvement
- **Safety Promotion**
 - Safety Communication
 - Competencies and Training

Section 5329(d)(1) of Title 49, U.S.C., requires each transit agency (TA) that receives certain FTA funding to certify that it has established a comprehensive Public Transportation Agency Safety Plan (PTASP).

The PTASP is the document in which FTA requires each transit agency to detail its practice of SMS.

Port Authority's Public Transportation Agency Safety Plan is developed to meet or exceed the following requirements:

- Federal Transit Administration (FTA) required practices pursuant to 49 Code of Federal Regulations Part 673, Public Transportation Agency Safety Plan.
- Federal Transit Administration (FTA) requirement to set safety performance targets based on the performance measures in the National Safety Plan (NSP) pursuant to 49 Code of Federal Regulations Part 670, National Transportation Safety Plan.

- Commonwealth of Pennsylvania state safety oversight program requirements for Rail Transit operations PRTSRP (Pennsylvania Rail Transit Safety Review Program and Standards) Procedures and Standards.

These publications establish the minimum content and required elements detailed in this PTASP including, but not limited to: Safety Management System (SMS) principles and methodology, and the components of Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion, as well as the various sub-components of an SMS.

- Governed by 49 CFR 673 Public Transportation Agency Safety Plan and 49 CFR Part 674 State Safety Oversight.
AND
- Not governed by the Federal Railroad Administration.

1.1 System Description

This section of the Public Transportation Agency Safety Plan (PTASP) provides a brief history of PAAC's system, its operating environment and organizational structure. Also described are services, facilities, and equipment and basic departmental functions.

1.2 General Overview and History

PAAC was created under enabling legislation enacted by the General Assembly of the Commonwealth of Pennsylvania on April 6, 1956. This act (the Second Class Port Authority Act), as amended, assigns PAAC the responsibility to plan, acquire, construct, maintain and operate facilities and projects for the improvement and development of the port district and mass/rapid transportation facilities for the citizens of the County. These facilities include light rail transit (LRT), bus operations, inclined planes, busways and stations.

The PAAC currently operates 98 bus routes, three (3) rail routes, paratransit service and an incline with ridership as follows:

Service Mode	Ridership – CY 2019			
	Annual	Weekday	Saturday	Sunday
Bus	54,959,963	184,919	87,515	56,117
LRT	7,423,997	25,632	9,392	6,888
Paratransit	1,376,577	4,776	1,887	1,094
Incline	385,541	908	1,856	991

1.2.1 Administrative Offices

PAAC's administration headquarters is located in the Heinz 57 Center at 345 Sixth Avenue in Downtown, Pittsburgh. Approximately 215 employees are located on the third and fifth floors of the building, which is owned by Smithfield Associates, Ltd. and managed by McKnight Property Group. PAAC's Customer Service Center is located at 623 Smithfield Street in downtown Pittsburgh. The building is also owned by Smithfield Associates, Ltd. and managed by McKnight Property Group.

PAAC's main shop/office building at 2235 Beaver Avenue currently houses personnel engaging in functions that include: Bus/Heavy Maintenance, Human Resources, Road Operations and Information Technologies and Instruction/Operations University.

All PAAC's administration and maintenance buildings comply with applicable code requirements and have various fire/life safety features that may include:

- Panic hardware
- Fire extinguishers and alarms
- Handrails and guardrails
- CCTV Security Cameras, fences and gates
- Sprinkler systems
- Emergency exits and lighting
- Emergency communications systems
- Emergency shower
- Eyewash stations
- Chemical/paint safety

1.2.2 Facilities and Rail Maintenance Shops

PAAC's Facilities Maintenance is centrally located in the City of Pittsburgh. It is comprised of four distinct buildings, yards, storage areas and parking facilities. The four buildings house approximately 200 plant maintenance staff and the material and equipment necessary to maintain PAAC's physical plant. One building is dedicated to Facilities Systems and Auto Maintenance Shop. The Facilities and Rail Maintenance functions performed, directed and dispatched from this site include the following:

- Traction and signal power system
- Structures, buildings and associated equipment
- Rail and Busway Signaling systems
- Track and roadway
- Stations and stops
- Drainage and plumbing systems
- Non-revenue vehicles
- Landscaping

- Custodial services
- Building & electrical
- Support vehicles, service and repair

1.2.3 Light Rail Transit System

PAAC's rail system was created by the consolidation of 33 private transit carriers which included the Pittsburgh Railways Company upon whose original rights of way the current system operates. Prior to 1987, the system operated trolley service along four alignments: Overbrook Line, Drake Line, Library Line and Beechview Line.

The rail system traverses the central business district and six densely developed communities located within the City of Pittsburgh (Allentown, Beechview, Beltzhoover, Bon Air, Carrick and Overbrook) and the suburban municipalities of Baldwin Township, Municipality of Bethel Park, Castle Shannon Borough, South Park Township, Municipality of Mt. Lebanon, Dormont Borough and Upper St. Clair Township.

1.2.4 Stage I LRT Program

A significant portion of the system was upgraded from trolley to light rail standards in 1987 as part of Stage I of PAAC's LRT program. In 1987 Operations were suspended on the Overbrook Line, which provided service between South Hills Junction and Castle Shannon since the early 1900s, because of the extremely deteriorated condition of three bridges. Stage I included the construction of a downtown subway and the 10.5-mile line from downtown Pittsburgh to South Hills Village and the new Mt. Lebanon Tunnel. Improvements to the Library Line and Mt. Washington Tunnel, a new vehicle maintenance building and control center and procurement of 55 articulated air-conditioned LRVs were also part of the project. LRVs operate on the South Hills Village, Library and Allentown routes on lines that were upgraded to LRV standards. As of September 1999, the Drake Line was closed with the retirement of all Presidents' Conference Committee (PCC) Cars. The Drake Line was serviced only by the PCC. During 2003, improvements were made to the Drake Line that allowed for testing of the new CAF LRVs.

1.2.5 Stage II LRT Program

The Stage II LRT Program was a continuation of the work performed under the Stage I Program. The Stage II LRT Project opened in June 2004 and consisted of upgrades to the Library Line, reconstruction of the Overbrook Line with approximately 5.5 miles of double track, construction of eight (8) stations, procurement of twenty-eight (28) new LRVs, rehabilitation of 55 LRVs, upgrade and expansion of the Operations Control Center and the implementation of an integrated Central Control System with an upgraded cab signal system along the rebuilt Overbrook Line.

The Overbrook Line currently operates with a Cab Signal System.

New Stations

- Willow
- Memorial
- Killarney
- McNeilly
- South Bank (Bus/Rail)
- Denise
- Bon Air
- Boggs

Bridges Along Overbrook

- McNeilly Road
- Glenbury Road Bridge
- South Bank Flyover
- Oak Viaduct
- Reflectorville Bridge
- McKinley Park Bridge
- South Hills Junction Flyover

The project also included four new substations at Washington Junction, Slater, Glenbury and Boggs to increase overhead power on the system from 650 DC to 750 DC. Two high platform stations at Simmons and Lytle were constructed with park n' ride lots with an approximate capacity of 600 vehicles. These stations opened in 2004.

In May 2005, PAAC opened the South Hills Village parking garage adjacent to the South Hills Village Station. The 7 story, 2,200 space facilities includes a dry standpipe fire system, emergency phones, exits and CCTV.

1.2.5.1 North Shore Connector

In March 2012, PAAC opened the North Shore Extension that connected the North Shore, PNC Park, Heinz Field, Rivers Casino, Science Center and other attractions via twin bored tunnels under the Allegheny River. Service on the 1.2-mile extension is provided from three newly constructed stations at Gateway (between Penn and Liberty on Stanwix), North Side (adjacent PNC Park on General Robinson), and Allegheny (adjacent Heinz Field on Reedsdale). The Gateway and North Side Stations are underground subway stations and Allegheny Station is constructed on elevated track structure.

1.2.5.2 Current Rail Operations

PAAC's Operations Division currently operates a light rail system consisting of three

primary routes consolidated into the Red, Blue and Silver Lines and serves the South Hills communities and the City of Pittsburgh. The system is comprised of approximately 25 route miles of track with 4 tunnels, 25 bridges, a central business district subway that opened in 1985 and the North Shore Extension that opened March 25, 2012. Approximately 27,000 patrons are served each weekday by the current system. The system is in revenue operation between approximately the hours of 4:30 am and 1:30 am (the following day) and provides service at approximately five-minute intervals during peak service demand & at twenty-minute intervals during off-peak hours.

Library via Overbrook (Silver Line as of March 2020; was formerly part of Blue Line)

The Library Line is a 4.9-mile double track light rail right-of-way between Washington Junction and the Library Station. This segment includes stations at Washington Junction, West Library and 17 stops. The Silver Line – Library via Overbrook operates daily between the Library Station and the City of Pittsburgh via the Overbrook alignment. Along the Overbrook alignment, the Silver Line services 8 high platform stations.

South Hills Village via Overbrook (Blue Line)

The Blue Line – South Hills Village via Overbrook operates daily between South Hills Village and the City of Pittsburgh via the Overbrook Line.

Overbrook Junction via Beechview (Red Line)

The Red Line – Overbrook Junction via Beechview operates daily between Overbrook Junction Station and the City of Pittsburgh.

Light Rail Transit System



1.2.5.3 Physical Plant

Rail transit operations are supported by vehicle and facilities maintenance shops, vehicles, inclined planes, a vehicle storage yard, a Control Center that includes Bus and Rail Traffic Operations, a traction power system, a signaling system, stations and station stops, administrative offices, storage/warehousing and public rights-of-way through the service area.

Rail Facilities

PAAC's rail operations and rail vehicle maintenance facilities are located on a 63-acre site in Bethel Park and Upper St. Clair, Pennsylvania. Two buildings constructed for Light Rail Vehicle (LRV) operations house Rail Traffic Operations and the light rail vehicle maintenance functions. A yard facility capable of storing a fleet of about 90 LRVs is located between and adjacent to the two buildings. PAAC facilities are designed and maintained to meet federal, state and local code requirements.

- **Rail Traffic Operations (RTO)**

PAAC rail operations are controlled and monitored on a 24-hour basis from the RTO located on the second floor of the Transportation Building. Staffed by the Director of Rail Service Delivery (RSD), Asst. to the Director of RSD, Manager of RSD, and Movement Directors, this unit performs control and monitoring functions using equipment that includes:

Radio Communication. The radio system provides RTO with access to all PAAC channels. The movement directors communicate with rail operators, field supervisors and maintenance personnel conveying the necessary information and/or instructions to effectively maintain and restore service, assist in emergency situations and coordinate with outside agencies. As part of the North Shore Extension, a bidirectional amplifier (BDA) with 16 emergency channels was added to the project to upgrade communications in the Central Business District. The remaining subway system BDA upgrade was completed during the 2014 calendar year. All LRVs and twenty-three stations are equipped with public announcement systems.

Telephones. Telephone sets at RTO provide access to administrative telephone lines and emergency telephones. Emergency telephones providing direct communication to RTO are located in the existing subway, the North Shore alignment and tunnels (Mt. Lebanon, and Mt. Washington). During 2013 fiscal year, two ADA compliant emergency telephones were installed at each of the following six high level platforms along the Stage I Line – Washington Junction, Castle Shannon, Mt. Lebanon, Dormont Junction and Fallowfield. All

subway, North Shore, tunnel and the Panhandle Bridge emergency phones are indicated by blue lights. All station yellow emergency call boxes report directly to PAAC Police Dispatch.

Computer Consoles. Four computer consoles at RTO allow movement directors to transmit and receive information entered into various automated systems. Track ball mouse devices are used to operate signals, electric switches, fans and other system elements remotely from RTO.

Rear Projection Overview Screen. A set of 20 rear projectors, at RTO, graphically displays the entire light rail system. Indications representing vehicle movements and locations on the system aid movement directors in monitoring the system from RTO. There are portions of the light rail system projection that do not display "live" LRV movement or position. This is due to non-signalized areas of operation such as Broadway Avenue in Beechview on the Red Line, certain sections from Palm to Station Square on the Main Line, and the entire Library Line. Four CCTV cameras are also displayed via this projection screen.

SCADA. Provisions for various system alarms to enunciate at RTO have been provided. Alarms include equipment status alarms, smoke/fire detection alarms and intrusion detection alarms.

Yard Control. The movement director controls all train movements within yard limits, including movements to/from the mainline and the vehicle maintenance shop using the same computer terminals that operate the mainline.

The Transportation Building also houses offices for transportation administration, operations, instruction and other staff as well as an operator's lounge, training/conference room, locker room and washrooms.

- **Rail Vehicle Maintenance Shop**

The shop layout includes 10 LRV track positions for inspection and 4 LRV positions for preventive maintenance and repairs. Separate rooms and areas have been provided for certain component repairs, parts cleaning, paint booth and tools and parts storage. Washrooms, locker rooms, offices, break room, training room, conference room, parts cleaning room, stationary and portable lift equipment and a loading dock have been provided in the shop building. The shop has seven flow-through tracks including a drive-through wash track. Vehicle maintenance functions performed at the South Hills Shop include:

- Daily servicing and inspection

- Interior and exterior LRV cleaning (car wash)
- Scheduled maintenance inspection
- Minor (running or unscheduled) repairs
- Major repairs and component change-out
- Wheel truing and underbody cleaning (blowdown)
- Vehicle body repairs and painting

This facility also contains an electronics shop, farebox shop and various shop ancillary areas.

Stations and Stops

PAAC's passengers' board and alight at stations and stops that are designed with high-level and/or sidewalk-level platforms, some with shelters and canopies for weather protection. Some standardized elements included in stations are lighting, system graphics, boarding and alighting procedures, information-dispensing facilities, trash receptacles and provisions for the physically-challenged (such as textured surfaces, between car barriers at high platforms, high visibility markings and other such devices) to facilitate using the system. Most stations operate without on-site staff. Stops are sidewalk-level with designated boarding/alighting areas quite similar to regular bus stops. Bus stops may include all or some of the above elements or only a sign indicating stops along primary and secondary public roadways.

Signal Systems

The LRT Signal System consists of five basic signal systems: Mainline Signaling, Grade Timed Signaling, Yard Signaling, Grade Crossing Protection, Busway Traffic Signaling and Cab Signaling. The signal systems were designed, installed and tested to meet the applicable requirements of the Signal Manual of Recommended Practices, the National Electrical Code, the National Electrical Safety Code, Manual of Uniform Traffic Control Devices and PennDOT Regulations on Traffic Signs and Signals.

- **Mainline Signaling**

Mainline signaling consists of interlocking areas, automatic spacing signals between the interlocking areas, electrically-locked, manually-controlled crossovers and grade crossings. Train-borne equipment commonly referred to as the Train to Wayside Control System (TWC) automatically routes a train to its proper destination. Under the Stage II Signal System contract, TTW was phased out and replaced with train to wayside control (TWC). These automatic spacing signals are arranged to provide proper spacing between and safe

braking distances for trains. LRVs are equipped with automatic trip stop systems that automatically apply the brakes if the train's operator violates a red signal along the Stage I and North Shore alignment.

- **Yard Signaling**

All yard signals and most switches are controlled from an entrance and exit type control console located in the RTO. Yard switch machines are non-trailable and dual controlled with dwarf signals associated with each machine.

- **Grade Crossing Protection**

All at-grade crossings are protected, at a minimum, by standard railroad flashing warning signals and cross bucks. The flasher signals are actuated by the presence of a train approaching the crossing and extinguished when the train passes beyond the roadway. Gated crossings are employed at Pleasant Street (Library Line), Poplar, Grove, Linden Grove, Killarney (Overbrook Line), Potomac (Red Line) and at Donati Road crossing near South Hills Village. The crossings at Castle Shannon (Overbrook), Logan Road and South Park Road (Library Line) require the LRV to "check-in" and the system interfaces with the traffic signals for automobile traffic.

PAAC Engineering, Operations, and Safety implemented a Grade Crossing Improvement Plan that began mid-2014 and the program still continues. This program started with eight crossings and then extended to eight more and still continues to grow. All grade crossings being improved receive all treatments needed (signage, LED lights, etc.) for better warning to motorists and pedestrians and to bring them into compliance with the Manual for Uniform Traffic Control Devices (MUTCD).

- **Busway/Traffic Signals**

A busway signal system has been provided to allow vehicles to safely move through areas where revenue bus and rail vehicles operate on common rights-of-way and where conflicting moves can occur. To safely control traffic through these areas, all rail and bus movements from the Dawn Stop through the Carson Street Intersection are controlled by individual traffic signal systems. Standard traffic and Light Rail Transit Signals are used at these locations.

- **Cab Signaling**

A cab signal system is an automatic train control (ATC) signal system that provides rear-end protection of train and also provides the train operator with indications of maximum authorized speed (MAS) by automatically considering the location of trains and track conditions ahead. This information is transmitted by Audio Frequency coded track circuits, through the running rails, to pick-up coils mounted on the forward truck of each end of LRV. Speed enforcement is provided by the Automatic Train Protection (ATP) system on the LRV in both cab signal coded and non-cab signal coded territories when the system is activated. This system is only along the Overbrook Line.

- **Signal Maintenance**

All signal equipment is maintained on a regular basis by trained facilities maintenance personnel in accordance with established Signal Wayside Preventive Maintenance Standards. Any signal defect reported are checked and immediately repaired.

Traction Power

The traction power distribution system consists of eleven electrical substations, four tie breaker stations at Boggs, Pine, Gateway Station and Allegheny Station, a network of cables which supplies 650 volts of direct current (nominal) to overhead wires, as well as the cabling to running rails that provides the negative return back to the substations. The rail cars use this 650-volt power to operate the traction motors and to energize all auxiliary systems. All traction power and substation feeds are monitored and controlled from panels and consoles by a remote Supervisory Control and Data Acquisition (SCADA) system located in the RTO.

Power System Maintenance

Equipment used for power distribution is frequently inspected to identify any visible defects according to preventive maintenance programs that involve performing maintenance and service at regularly scheduled intervals. The principal elements of each system include detailed inspections that allow for close monitoring of all the substations, catenary, switches and signals. Timely corrective action and component replacement are performed when warranted based on the individual component life cycle.

Each element of the power distribution system such as passenger station lighting, subway lighting, substations, power cables, catenary, emergency fans, louvers, pumps, switches and control equipment, etc., is inspected on a regular basis and repairs to the elements are made promptly.

1.2.5.4 Rail Revenue Vehicles (LRVs)

The current rail fleet consists of twenty-eight (28) CAF, and fifty-five (53) rehabilitated Siemens for a total of eighty-three (81) LRVs.

The 28 LRVs and all rehabilitated LRVs are approximately 85 feet in length, 8.5 feet wide and 12 feet in height. The top-rated speed for this LRV is 50 MPH and has a capacity of 62 seated patrons and a "crush" load capacity of 200 passengers. All components were designed and constructed of materials meeting Federal Transit Administration requirements for safety practices. The vehicle is made secure for fire/life safety purposes by removing the pantograph from contact with the overhead current supplying wire.

Rail Car Preventive Maintenance

Prevention is the cornerstone of vehicle maintenance at PAAC where a trained staff adheres to an established Preventive Maintenance (PM) program. PM means examining and monitoring equipment through programmed inspection, follow-up repairs, failure analysis and programmed component replacement. Frequent auditing of the PM program ensures that it is being carried out. Other tasks in maintaining PAAC's rail fleet include corrective maintenance, component repair and overhaul and servicing and cleaning.

Objectives of the PM program are:

- Ensure operational safety and system dependability
- Reduce service failures and resultant corrective maintenance
- Prolong equipment life
- Maximize passenger comfort and satisfaction
- Minimize system maintenance costs
- Optimize workload schedules

The PM program consists of routine tasks such as inspection, cleaning, lubrication and servicing that are scheduled and performed at specific intervals. Under the direction of a maintenance supervisor, service personnel visually inspect each vehicle's interior and exterior as well as related subsystems in order to identify potential safety defects or abnormal conditions. Typical items checked are batteries, brake systems, seating, lighting, stanchions, destination signs, mirrors, door operation, exterior body, currency collection and HVAC equipment.

Rail Car Corrective Maintenance

Corrective maintenance restores a vehicle to service following failure to a system or component. Corrective maintenance consists of troubleshooting, repairing failed

equipment and returning the vehicle to service as quickly as possible. Minor repairs that take less than eight hours are normally classified as running repairs. Heavy repairs are of longer duration.

Corrective maintenance is addressed as a result of defects noted by rail operators and defects found during routine inspection, vehicle failure in service and accidents. In all cases, risk is assessed, and a decision made to repair immediately or log for repair during the next scheduled maintenance activity.

Vehicle problems identified during revenue operation are noted on a defect card and reported to RTO. If the problem has an immediate impact on safety or service, the rail operator, at the direction of an RTO movement director or a road operations supervisor, may attempt to resolve it. A Rail Tech may also be dispatched to the unit to troubleshoot. If the problem cannot be resolved, the vehicle may be removed from service.

Corrective Maintenance includes the following areas:

- **Running Repairs.** Running repairs include door repairs, window replacements, minor electrical problems, diagnosis of propulsion/braking failures, etc. Often, running repairs do not require removing a vehicle from revenue service and can be deferred until the vehicle is returned to the yard.
- **Heavy Repairs.** Heavy repairs require a longer period of time to complete and more complex troubleshooting. Typical heavy repairs include rewiring, suspension systems, body and collision work, sanding and painting. Heavy repairs are normally performed in a dedicated shop bay. Vehicles are usually stored temporarily in the storage yard until heavy repairs can be scheduled.
- **Fleet Campaigns.** Fleet campaigns and modifications involve changing performance characteristics or original equipment configuration for the entire fleet. For example, new vehicles may require extensive and frequent changes to propulsion and braking characteristics. Fleet campaigns also include engineering revisions for unreliable components and configuration control management, recommendations by a manufacturer and PAAC's Technical Support initiate revisions due to experience.

Rail Car Component Repair and Overhaul

Approximately every two years, vehicles may be brought in for inspection and overhaul with service-ready components. Approximately every five years, vehicles may undergo a minor overhaul which includes refurbishing the interiors, repairing body damage and exterior repainting. At ten-year intervals, vehicles may undergo a major overhaul consisting of minor overhaul items plus rebuilding steps, doors and tracks, replacing interior finishes and renovating underbody structures. These

activities are extensive and may result in a vehicle being out of service for two months or more; however, the overhaul program is important to the life and reliability of the fleet. Under the Stage II Project, most of the existing fleet underwent extensive rebuilding and upgrades to configuration specifications of the new light rail vehicle. There were no new vehicles procured as part of the North Shore Extension.

Rail Car Cleaning

Complete and thorough cleaning procedures are basic to PAAC's overall vehicle maintenance program. Cleaning is a vital step in detecting and correcting minor repairs, keeping the vehicles in excellent running condition and providing a safe environment and attractive appearance for the general public. PAAC's cleaning program consists of light interior cleaning performed daily, exterior washing performed daily, heavy interior cleaning performed every 30 days and underbody pressure washers and electrical blowdown performed prior to scheduled overhauls.

Track Systems

PAAC's rail system employs different types of track systems, depending on the location (ballast, concrete, open deck), with rights-of-way in subway, at-grade and on aerial structures. Each system uses different materials and is maintained differently. All revenue tracks are inspected on a frequent schedule; non-revenue and yard tracks are also inspected, but on a less frequent schedule.

1.2.6 Bus Operations

The Bus Operations section of the Operations Division represents the largest of the transportation services provided by PAAC. PAAC currently operates 98 fixed bus routes in an integrated system throughout Allegheny County that link residential areas with work sites, downtown Pittsburgh, hospitals and shopping malls. The bus routes originate from four bus garages located in the following communities: Ross Township, Collier Township, West Mifflin Borough and Pittsburgh (East Liberty area). Many of the bus routes operate seven days a week with 3- to 90-minute headways depending on the time and day with reduced weekend service. Major bus repairs and component rebuilding are performed at PAAC's main bus shop facility located at 2235 Beaver Avenue, Pittsburgh (Manchester), Pennsylvania.

1.2.6.1 Revenue Buses

PAAC has a fleet of approximately 731 revenue buses of various makes and models. The fleet consists of (30) 35-foot buses, (546) 40-foot clean diesel buses, (126) articulated buses, and (27) Gillig Low Floor Hybrid buses with plans to add two (2) 40-foot electric buses being added for pilot testing in early 2020.

Bus operations are supported by vehicle and facilities maintenance shops, vehicles, bus storage yards, garages, a Bus Traffic Operations (BTO) Center, stations and stops, busways, bus lanes, HOV lanes, administrative offices, storage/warehousing and public rights-of-way through the service area.

1.2.6.2 Bus Facilities

PAAC's bus service is supported by a control center (BTO), operating facilities, a major bus repair facility, vehicles, bus stops and passenger transfer centers, administrative offices, storage/warehousing, busways and public rights-of way.

Bus Traffic Operations (BTO) Control Center

Bus operations are monitored and coordinated on a 24-hour basis from the BTO located in the Transportation Building at the South Hills Village location. Staffed with Bus Traffic Dispatchers and Area Supervisors, this unit performs the monitoring and coordinating functions using radio communication and telephones to link communication between internal PAAC units, Port Authority Police dispatch and external service providers such as police, fire and emergency medical service personnel.

Bus Operating Facilities

There are four bus operating facilities or divisions in PAAC's bus system. All four bus-operating facilities operate 24 hours per day, 7 days per week, and 365 days per year. The operating facilities from which all PAAC's buses are dispatched are as follows:

- Ross facility
- Collier facility
- West Mifflin facility
- East Liberty facility

Transportation and maintenance functions are performed at these facilities. PAAC bus facilities were designed and are maintained to meet federal, state and local requirements including fire codes.

Combined, the garages and shops at the four bus facility sites currently store and maintain about 731 buses of various makes and models. The shops were designed for the performance of vehicle inspections, minor or running repairs and interior and exterior vehicle cleaning.

Vehicle fueling at the operating sites consists of fueling islands equipped for diesel

and gasoline.

Vehicle cleaning facilities at the operating sites consist of automatic bus washers, heavy cleaning areas and pits for underbody cleaning. The bus washers include equipment for the control, treatment and recirculation of water. Routine interior vehicle cleaning is done in the storage yard. Heavy interior cleaning requires a wet vacuum system for vehicle floors, walls and mats; these activities take place in the shop. Undercarriages of revenue vehicles are cleaned prior to scheduled maintenance inspections.

All four PAAC bus operations facilities include offices for transportation and maintenance administration, instruction/training and clerical personnel, training/conference rooms, drivers' lounges, locker rooms and restrooms.

Bus Preventive Maintenance

Preventive maintenance practices are monitored daily. Operational safety, improved vehicle reliability, increased miles between road failures; increased equipment life and maximum passenger comfort are objectives of the preventive maintenance programs. Maintenance Managers of lead initiatives in the field.

The intent is to retain vehicles in a condition compatible with safety, dependability and appearance standards. Well-designed preventive maintenance procedures – and enforcement of these procedures – ensure the effectiveness of these maintenance programs.

The preventive maintenance programs attempt to identify problem areas before they require corrective maintenance. Therefore, reporting requirements are developed for each inspection procedure to support future preventive maintenance activities as well as effectively communicate the specific need for corrective maintenance. The flow of information between preventive and corrective maintenance activities is critical to the success of both types of

maintenance. Records of all preventive actions are maintained at each bus location.

The preventive maintenance programs include the following:

- **Inspection.** All buses are subjected to a periodic inspection program to determine if conditions exist that require a maintenance action. The level and frequency of inspections are consistent with contractor and supplier recommendations, state inspection standards, industry standards, criticality of the equipment, probability of finding a defect and operational experience.
- **Servicing.** Servicing consists of regularly scheduled activities that are

necessary to maintain the performance of the vehicle and its components. These activities include lubrication and adjustments, but they also may involve the replacement of consumables such as air filters. Servicing schedules are normally provided by equipment manufacturers in their maintenance manuals.

- **Cleaning.** All active buses receive daily exterior washing and interior housekeeping. Interior washings occur at specified intervals.

The Preventive Maintenance procedures require that buses undergo a general inspection every 6,000 miles. In addition, guidelines are provided for supplemental inspections of specific sub-components. The Managers of Maintenance are ultimately responsible for ensuring that the required inspections and repairs are conducted according to schedules and that all necessary repairs are made and documented for review by local, state and federal officials.

Bus Corrective Maintenance

Bus Corrective Maintenance is performed by both Bus Maintenance and Main Shop Departments. These two departments work together to ensure that corrective measures are consistently implemented throughout the system and for the respective fleets. Corrective measures are monitored for completion and analyzed for follow-up.

Operators noting safety related (CDL) defects on buses in the yard must report such defects to Bus Maintenance. These defects must be corrected by maintenance personnel prior to pull-out.

Operators are also required to notify BTO whenever a safety-related equipment defect is noted subsequent to pull-out. Bus Maintenance & Service has on-street emergency repair and vehicle retrieval capabilities.

Bus Servicing and Cleaning

Bus servicing and cleaning is performed by the Bus Maintenance under the direction of the Acting COO Maintenance. Daily servicing, cleaning and fueling of vehicles is performed at all bus locations. Safety and customer satisfaction are objectives of the servicing/cleaning functions. In addition to the daily servicing/cleaning of vehicles, regularly scheduled extensive cleaning is also performed on the buses.

Nightly, every bus receives an exterior wash. In addition, seats, floors, windows and the operator's compartment are swept and cleaned, trash removed, and any major spills or messes cleaned up.

PAAC has established a goal of performing interior washings on its bus fleet within a 30-day interval. Reports are generated and distributed to service personnel who indicate the days between the last interior washing for every bus assigned to a particular location. Buses are scheduled for interior washings from the report.

1.2.6.3 Busways

PAAC also operates three (3) busways as part of its motor bus operation: The South Busway, the Martin Luther King, Jr. East Busway (also referred to as the East Busway) and the West Busway. All Busways are subject to PRTSRP oversight. Authorized access to the busways can only be granted by PAAC and is generally limited beyond PAAC's buses and vehicles to law enforcement and emergency management and response functions.

South Busway

The South Busway, which opened in 1977, is a 3.8-mile, two-lane concrete roadway between Glenbury Avenue in the city's Overbrook neighborhood and Carson Street at Station Square. Buses formerly shared this busway with light rail vehicles between the Dawn and South Hills Junction transit stops. Access is available for non-rail vehicles at Glenbury Avenue, Pioneer Avenue, West Liberty Avenue, Warrington Avenue (Palm Garden), Haberman Avenue and the Mount Washington Transit Tunnel to Station Square. As part of the Stage II Overbrook Project, the South Busway from Glenbury to Whited was upgraded and opened for service in September 2002. Upgrades consisted of new roadway alignment, which is now grade separated from rail, new stations, lighting and signage.

Martin Luther King, Jr. East Busway

The Martin Luther King, Jr. East Busway which opened in 1983 is a 6.8-mile two-lane concrete roadway between Hay Street in Wilkinsburg and Grant Street in the City's Downtown. Access is available at Hay Street, Wallace Avenue, Fifth Avenue (East Liberty neighborhood), Neville Avenue, 26th Street and Grant Street, serving (6) stations. The East Busway Extension, which opened June 15, 2003, is a 2.3-mile extension from the original Hay Street terminus, east to Swissvale. The extension consists of (3) new stations (Hamnett, Roslyn, Swissvale), relocated Wilkinsburg Station with a new 577 space park n' ride and park n' ride lots at Hamnett (100 spaces) and Swissvale (126 spaces). Two new access points include Vernon Avenue to Swissvale Station and Kenmawr ramp via South Braddock Avenue.

West Busway

The West Busway, which opened in September 2000, is a 5.1-mile two-lane

concrete roadway that provides exclusive right-of-way between the Borough of Carnegie and Downtown Pittsburgh via West Carson Street. Interchanges with the Parkway West (I-279) and West Carson Street provide service to the Airport Corridor and serve six (6) stations and approximately 1533 new park and ride spaces. Seven access points onto the busway include West Carson Street, Chartiers Avenue via Sheraden Ramp, Ingram Avenue Ramp, Bedford Avenue Ramp, Chartiers Avenue Ramp, I-376 Eastbound Ramp and Campbells Run Road.

Wabash High Occupancy Vehicle (HOV) Tunnel

In December of 2004, the PAAC completed construction and opened the Wabash High Occupancy Vehicle (HOV) Tunnel and parking facility. The Wabash HOV Facility links Route 51, via Woodruff Street, with Carson Street across from Station Square. The 3,650-foot tunnel is equipped with CCTV, emergency phones, and fans and is designated HOV-2 during peak operating hours. The Wabash Facility is not a regular scheduled route for Authority buses but may be used for special events and/or emergencies. The Facility is owned by PAAC and monitored by the PAAC Police and maintained by the Way and Facilities Department.

Busway Signaling

A busway signal system has been provided to allow vehicles to safely move through areas where revenue bus and rail vehicles operate on common rights-of-way and where conflicting moves can occur. To safely control traffic through these areas, all rail and bus movements from the Dawn Stop through the Carson

Street intersection are controlled by individual traffic signal systems at each of the following intersections:

- West Liberty Avenue Ramp (Dawn Stop)
- Warrington Avenue Ramp (Palm Garden)
- Service Road (Building #4)
- Re-merge area
- Haberman Avenue Ramp (South Hills Junction)
- Carson Street Ramp

Each of the intersections was designed so that traffic flow from the main routes is not interrupted until a secondary route vehicle requests access to the system. This system has a supervisory control machine located in the South Hills Junction Tower.

1.2.7 Inclined Planes

PAAC owns and leases out the operation of the Duquesne Incline to the Society for

the Preservation of the Duquesne Incline. In addition, the PAAC owns and directly operates the Monongahela Incline. The inclines are regulated as elevators through the Pennsylvania Department of Labor and Industry and the Mon Incline (operated by Port Authority) is included in the PRTSRP State Safety Oversight Program for regulatory oversight; hence, only the Monongahela Incline is included within this PTASP as part of the Federal Fixed Guideway regulations. PennDOT provided PAAC with a letter dated November 22, 2019 stating that "*the Federal Transit Administration and the RTSRP have determined that the Duquesne Incline Plane is not subject to state safety oversight (SSO) requirements and will be removed from the safety and security oversight program, effective immediately*".

1.2.8 Access for Paratransit System

ACCESS is operated by five (5) for-profit and one (1) non-profit carriers under management by Transdev Services, Inc. d/b/a ACCESS Transportation Systems. The ACCESS Program provides advance reservation, shared-ride door-to-door service throughout Allegheny County using approximately 340 vehicles. The service is open to the general public but there are reduced rates for older persons, people with disabilities and clients of human service agencies. ACCESS Transportation Systems and its subcontractor carriers are required to maintain their own safety plans.

1.3 Weather

The Average Weather for the Pittsburgh, Pennsylvania area is included for reference in Appendix G.

2.0 SAFETY MANAGEMENT POLICY

As required by 49 CFR Part 673.23, Section 2 of the Public Transportation Agency Safety Plan (PTASP) of the Port Authority provides its Safety Management System Policy Statement signed by the agency's Accountable Executive / Chief Executive Officer that endorses the safety management system (SMS) program and describes the authority that establishes the PTASP. Section 2 discusses the scope and purpose of the PTASP. Section 2 provides a clear definition of the authority, goals and objectives for the safety management system program and stated employee and contractor responsibilities to ensure they are achieved. This section also provides a list of definitions of important terms used in the PTASP.

2.1 Port Authority Safety Management System Policy Statement

It is the mission and policy of the Port Authority of Allegheny County (PAAC) to provide safe and reliable transportation service for the general public, to provide safe and healthful working conditions for Port Authority employees, and to comply with all applicable laws and regulations.

PAAC is fully committed to a Safety Management System (SMS) and to providing its customers with safe service, and to maintain a strong safety culture and working environment that ensures the safety and health of its employees and protects the environment.

The management of safety is a major consideration in every stage of all PAAC activities. PAAC is committed to implementing, maintaining and continually improving processes to ensure that all its operational and maintenance activities are supported by reasonable and appropriate allocation of organizational resources and aimed at achieving the highest level of transit safety performance.

All employees, contractors, and consultants are responsible and accountable for the delivery of this highest level of safety performance, starting with PAAC Board approval of this Safety Management Policy Statement, PAAC's Public Transit Agency Safety Plan (PTASP) and designation of PAAC's Chief Executive Officer (CEO) as the agency's designated Accountable Executive.

PAAC's commitment is to:

- Support its SMS by providing appropriate resources to support an organizational culture that fosters safe operational practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as that given to the other critical management systems of PAAC.

To implement PAAC's Public Transportation Agency Safety Plan, PAAC's employees, contractors, and consultants must focus on the following Safety Management System components:

- PAAC's Safety Management Policy Statement;
- PAAC's Safety Risk Management process for identifying hazards and analyzing, assessing, and mitigating safety risk to the lowest reasonable level;
- Safety Assurance to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that PAAC meets or exceeds its safety objectives through the collection, analysis, assessment, and trending of information; and
- Safety Promotion to support SMS as applied to PAAC, including internal and external safety communications and management and employee training.

PAAC's CEO (Accountable Executive) has appointed the Chief Safety Officer as the agency's designated SMS Executive, with primary responsibility for maintaining and

updating PAAC's PTASP on an ongoing basis. All PAAC employees, contractors and consultants are responsible for working safely and assuring that PAAC's service is delivered safely for all who come in contact with it.

2.2 Authority

The Port Authority of Allegheny County (Port Authority) was created by the Second Class County Port Authority Act of April 6, 1956 (1955 P.L. 1414, No. 465), as amended. This act empowered Port Authorities in counties of the second class as bodies corporate and politic, with power to plan, acquire, construct, maintain, and operate facilities and project for the improvement and development of the port district, and granted Port Authorities the exclusive right to engage in the business of owning, operating and maintaining a transportation system for the transportation of persons in counties of the second class. Port Authority provides these services within Allegheny County through bus operations (including busways), light rail transit (LRT), and an inclined plane.

2.3 Federal Transit Act

In response to congressional concern regarding the potential for catastrophic accidents and security incidents on rail transit systems, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) added Section 28 to the Federal Transit Act (codified at 49 U.S.C. Section 5330). This section requires the Federal Transit Administration (FTA) to issue a rule creating the state-managed oversight program for rail transit safety and security.

The FTA published the revised *Rail Fixed Guideway Systems: State Safety Oversight Rule on April 29, 2005* (to be codified as 49 CFR Part 659), subsequently referred to as State Safety Oversight Rule or Part 659 (Appendix B). Only those states with Rail Fixed Guideway Systems (RFGS) meeting the definition specified in Part 659 must comply with the FTA's State Oversight Rule revisions.

On March 16, 2016 the FTA published a new State Safety Oversight Rule, 49 CFR 674. This rule went into effect on April 15, 2016. Three years after this date, on April 15, 2019, 49 CFR 659 was rescinded and only part 674 is now in effect.

2.4 Authority Under 49 U.S.C. 5329(e)

In October 2012, the Moving Ahead for Progress in the 21st Century Act (hereafter "MAP-21"), which includes new provisions for State Safety Oversight agencies, including PennDOT, took effect. MAP-21 creates a new regulatory role for the states implementing State Safety Oversight (SSO) programs for the rail transit fixed guideway systems in their jurisdictions.

Explicit mandates in 49 U.S.C. 5329(e)(3) and 5329(e)(4) now require a State to obtain enforcement authority for its SSO agency that administers SSO programs for the rail transit agencies in that State. States must provide their SSO agencies with this authority as a condition of the receipt of Federal grant funds apportioned under 49 U.S.C. Chapter 53. In addition, each State must identify the specific authorities and capabilities that it will use to enforce 5329(e) provisions in order to maintain its eligibility for Federal public transportation funding. FTA will evaluate each State's approach and determine its sufficiency.

2.5 Authority Under 49 CFR 674

On March 16, 2016, the FTA released the final SSO rule, 49 CFR 674 (hereafter "Part 674"). The effective date for this rule is April 15, 2016. Three years after this date, April 15, 2019 the SSO rule 49 CFR 659 (hereafter "Part 659") was rescinded and only Part 674 is in effect.

Part 674 contains several changes that will affect SSOA and RTA activities. These changes include new accident notification criteria, new nomenclature, enhanced enforcement authority for SSOAs, and increased SSOA involvement in the corrective action plan (CAP) process. With the release of the revised RTSRP requirements for RTAs under its jurisdiction, covered agencies are required to develop a Part 674 transition plan detailing how and when they will come into compliance. To assist RTAs with transitioning to Part 674, the RTSRP may hold workshops on regulatory changes to the RTSRP Procedures and Standards, offer guidance on requirements of the new rule, and establish milestones for program updates.

2.6 RTSRP Oversight of 49 CFR 673

On July 19, 2018, the FTA released the final Public Transportation Agency Safety Plan (PTASP) Rule, 49 CFR 673 (hereafter "Part 673"). This rule requires all transit agencies that receive funding under 49 U.S.C. Chapter 53 to develop and maintain a PTASP. As the SSOA, the RTSRP is required to review and approve the PTASP of each covered RTA. The RTSRP will require the transit agencies to provide their final PTASP with enough time for the RTSRP to review and approve in advance of the FTA's July 20, 2020 deadline for an SSO-approved PTASP (see timeline in Appendix G of the RTSRP Procedure and Standards).

2.7 RTSRP Implementation and Oversight of 49 CFR 672

On July 19, 2018, the FTA released the final Public Transportation Safety Certification Training Program Rule, 49 CFR 672 (hereafter "Part 672"). This rule dictates training requirements for individuals involved in the oversight of transit agencies that receive funding under 49 U.S.C. Chapter 53, as well as designated employees at those agencies.

In addition to completing specified training, SSO personnel and contractors conducting safety audits and examinations must also develop a technical training plan. Finally, pursuant with Part 672, RTAs must ensure that designated employees receive refresher training every two years, including a minimum of one hour of safety oversight training.

The mandatory components of CFR 672 training consist of the Transit Safety and Security Program (TSSP) Certificate and SMS curriculum. TSSP coursework required (to be completed within a three-year period), totaling 104 hours includes:

- Rail System Safety – 36 hours;
- Rail Incident Investigation – 36 hours; and
- Effectively Managing Transit Emergencies – 32 hours.

The SMS Curriculum (two in-person courses and two online training sessions), totaling 39 hours includes:

- SMS Awareness – one hour;
- Safety Assurance – two hours;
- SMS Principles for Transit – 20 hours; and
- SMS Principles for SSO Programs – 16 hours.

Per Part 672, the RTSRP is also developing a technical training plan for SSOA personnel who perform safety audits and examinations. Refresher training will be completed every two years. Training records will be retained for at least five years from the date the record is created. In addition to TSSP and SMS coursework, the RTSRP tracks:

- Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS)/Incident Command System 100, 200, 700, and 800 training;
- Technical agency-specific training in operations, maintenance, safety, and security at each RTA; and
- Accident/incident training, including tabletop exercises.

2.8 Authority under Pennsylvania's Act 89

In 2013, Pennsylvania enacted an amendment to Title 74 that established enforcement authority for PennDOT's RTSRP. The amendment, also known as Act 89, contains open-ended language to enable PennDOT to comply with federal guidance as it is issued in the future:

§ 1510. Program oversight and administration.

(a) Review and oversight--The department shall initiate and maintain a program of financial and performance review and oversight for all programs receiving financial assistance under this chapter. The department may perform

independent financial audits of each award recipient to ensure compliance by award recipients with this chapter, department regulations and policies and financial assistance agreements. Audits shall be conducted in accordance with generally accepted auditing standards.

(b) State Rail Transit Safety Inspection Program--The department may conduct a State Rail Transit Safety Inspection Program, as may be defined from time to time by the Federal Transit Administration, to meet oversight requirements of the Federal Transit Administration. The public transportation modes covered shall include heavy rail, light rail, trackless trolley bus and inclined plane services and related facilities.

PennDOT has begun working to implement the provisions of MAP-21, which will strengthen the oversight program by ensuring the legal and financial independence of the RTSRP, providing specific authority to enforce program requirements and to compel action by the Port Authority, and to conduct audits, inspections, and field measurements, among other new requirements.

After promulgation of any further rules by the FTA, RTSRP will work with the Port Authority to develop implementation plans and timeframes. This will be a multi-year collaborative process.

2.9 Pennsylvania Rail Transit Safety Review Program

The Pennsylvania Department of Transportation (PennDOT) is the designated agency for fixed guideway safety oversight in the Commonwealth of Pennsylvania. The Rail Transit Safety Review Program (RTSRP) is the entity authorized by PennDOT to develop, operate, and maintain the safety review program requirements in the Commonwealth. The RTSRP fulfills Commonwealth of Pennsylvania requirements for rail safety oversight. The RTSRP also satisfies the FTA State Safety Oversight Rule (49 CFR 674), which requires states, including the Commonwealth of Pennsylvania to oversee the safety of rail fixed guideway agencies through a designated oversight agency. RTSRP safety and oversight responsibilities include Port Authority busways and inclined plane, even though they are not required by the revised State Safety Oversight Rule. The RTSRP was established in 1991 to fulfill requirements of revised Pennsylvania statutes in Title 74 § 1305 through § 1307 (implemented as a result of House Bill 840). The RTSRP also oversees security and emergency preparedness of the rail fixed guideway at PAAC, although not required to under 49 CFR 674.

The Port Authority is covered under the RTSRP and must develop and implement a Public Transportation Agency Safety Plan and a Security and Emergency Preparedness Plan that complies with the RTSRP system safety and security program standard. In addition, Port Authority responsibilities include:

- Conducting internal safety and security audits and submitting to RTSRP an annual report summarizing the results of these audits.
- Identifying, classifying, and mitigating hazards.
- Reporting any accident or hazard in accordance with the procedures outlined in the Accident and Hazard Notification section of the RTSRP Standard.
- Conducting accidents and hazard investigations on behalf of RTSRP when directed to do so.
- Preparing corrective action plans and then implementing the plans so as to minimize, control, correct, or eliminate the hazard or conditions that have caused an accident.

This PTASP has been updated to reflect changes in the PRTSRP Procedures & Standards, June 2019 Revision as required by the revised Rule.

NOTE: On November 22, 2019 the Pennsylvania Department of Transportation (PennDOT) Rail Transit Safety Program (RTSRP) issued a letter to the Port Authority of Allegheny County stating that *"the Federal Transit Administration (FTA) and the RTSRP have determined that the Duquesne Incline Plane is not subject to state safety oversight (SSO), requirements and will be removed from the safety and security oversight program, effective immediately"*.

2.10 Definitions

Accident for RTSRP reporting purposes is defined as any incident involving a transit vehicle or taking place on property controlled by the transit agency where one or more of the following occurs:

- A loss of life;
- Serious injury to a person;
- An evacuation due to life safety reasons;
- A collision involving a fixed guideway transit vehicle;
- A derailment of a rail transit vehicle, at any location, at any time, whatever the cause; or
- A runaway train.

The Port Authority must notify the RTSRP and FTA within two hours of an accident that meet the criteria listed above. For a more detailed description of the criteria, please see the Incident/Accident/Hazard Investigation Procedures.

Accountable Executive (AE) 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.

Collision at Grade Crossing means train to train, train to vehicle, train to object, and train to individual collisions that occur at rail grade crossings, including in mixed traffic environments at street intersections (per current FTA SSO reporting template language).

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.

Corrective Action Plan Definitions

- Date Identified – Date the CAP was generated.
- Source – What generated this CAP (ex. FTA reporting requirement, Accident/Incident, Hazard, etc.)
- Finding – Description of the deficiency or needed improvement.
- Hazard Rating – Rating based upon hazard analysis, if required.
- Corrective Action Plan – CAP must clearly address the precipitating event or hazard and outline proposed mitigations.
- Notes/Comments – RTA/RTSRP will enter progress and feedback on open CAP.
- Responsible Party – Individual/department responsible for CAP.
- CAP Issue Date – Date at which RTA submitted CAP to RTSRP.
- CAP Target Date – Proposed date at which the CAP will be completed.
- Transit Agency Status – Open, Awaiting Verification or Closed.

Event means an Accident, Incident or Occurrence.

FRA means the Federal Railroad Administration, an agency within the U.S. Department of Transportation.

FTA means the Federal Transit Administration, an agency within the U.S. Department of Transportation.

Hazard means any real or potential condition (as defined in the rail transit agency's hazard management process) that can cause injury, illness, or death; damage to or loss of a system, equipment or property; or damage to the environment.

The Port Authority must notify the RTSRP within 24 hours or on a monthly basis, depending on the RTSRP reporting requirements of learning of a Reportable

Hazard.

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 section 4.10 – Event Notifications of the PRTSRP. 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 section 4.10 – Event Notifications of the PRTSRP.

Individual means a passenger; employee; contractor; rail transit facility worker; pedestrian; trespasser; or any person on rail transit-controlled property.

Injury means harm to a person, requiring that person to be transported from the scene of an incident to a hospital or medical facility for treatment.

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.

Major Capital Project means a project that involves the construction of a new fixed guideway system or an extension to an existing fixed guideway; involves the rehabilitation of an existing fixed guideway with a total project cost in excess of \$100 million; or is determined by the FTA to be a major capital project because it has determined that FTA Project Management Oversight process will be beneficial to the project.

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.

Near Miss means any instance or event that did not result in injury or damage but had the potential to do so.

New Starts Project means any fixed guideway system which utilizes and occupies a separate right-of-way, or rail line, for the exclusive use of mass transportation and other high occupancy vehicles, or uses a fixed catenary system and a right-of-way usable by other forms of transportation, which is funded under FTA's 49 U.S.C. § 5309 discretionary construction program.

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.

Oversight Agency means the entity, other than the rail transit agency, designated by the state or several states to implement Part 674.

Passenger means a person who is on board, boarding, or alighting from a rail transit vehicle for the purpose of travel.

Passenger Operations means the period of time when any aspect of rail transit agency operations are initiated with the intent to carry passengers.

PennDOT means the Pennsylvania Department of Transportation, an agency within the Commonwealth of Pennsylvania.

Person means a passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.

Program Standard means a written document developed and adopted by the oversight agency, that describes the policies, objectives, responsibilities, and procedures used to provide rail transit agency safety and security oversight.

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 49 CFR 673. 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 may serve as the rail transit agency's safety plan.

Public Transportation Safety Certification Training Program (PTSCTP) 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 System means, as determined by FTA, any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway that:

1. Is not regulated by the Federal Railroad Administration; and
2. Is included in FTA's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336); or
3. Has submitted documentation to FTA indicating its intent to be included in FTA's calculation of fixed guideway route miles to receive funding under FTA's formula program for urbanized areas (49 U.S.C. 5336).

Rail Transit Agency (RTA) means an entity that operates a rail fixed guideway system.

Rail Transit-Controlled Property means property that is used by the rail transit agency and may be owned, leased, or maintained by the rail transit agency.

Rail Transit Vehicle means the rail transit agency's rolling stock, including, but not limited to passenger and maintenance vehicles.

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.

RTSRP means the Rail Transit Safety Review Program, the entity authorized by PennDOT to develop, operate, and maintain the safety review program requirements in the Commonwealth, fulfilling safety review requirements for the Commonwealth of Pennsylvania and the Federal Transit Administration (FTA) State safety Oversight Rule (49 C.F.R. 674) and Pennsylvania Act 89.

Safety means freedom from harm resulting from unintentional acts or circumstances.

Safety Management Plan means the policies, procedures, and programs implemented to identify and mitigate risk.

Safety Management System means a method of identifying hazards and controlling risks in a work and operational environment that continually monitors these methods for effectiveness.

SMS Executive Manager means the person responsible to manage the SMS on a daily basis on behalf of the Accountable Executive and makes sure that SMS is implemented appropriately. The SMS Executive Manager works with key safety personnel on SMS implementation and overall administration and management. The SMS Executive Manager serves as the Agency's Chief Safety Officer (CSO).

Safety and Security Certification means the process applied to project development to ensure that all practical steps have been taken to optimize the operational safety and security of the project during engineering, design, and construction before the start of passenger operation.

Safety Review means a formal, comprehensive, on-site review by the PRTSRP of the transit agency's safety practices to determine whether they comply with the policies and procedures required under the transit agency's system safety program plan.

Security means freedom from harm resulting from intentional acts or circumstances.

Serious Injury, as defined in 49 CFR 674, means any injury which: (a) Requires hospitalization for more than 48 hours, commencing within seven calendar days from the date of the injury; (b) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (c) Causes severe hemorrhages, nerve, muscle, or tendon damage; (d) Involves any internal organ or; (e) Involves second- or third-degree burns affecting more than five 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.

Stop Signal Overrun means an occurrence when a rail transit vehicle fails to stop as required in advance of a stop signal, flag, or other indicator, as specified in a rail transit agency's operating rules and procedures.

System Safety Program Plan (SSPP) means a document developed by the rail transit agency, describing its safety policies, objectives, responsibilities, and procedures.

State Safety Oversight Agency (SSOA) means the entity, other than the rail transit agency, designated by the state or several states to implement 49 CFR Part 674.

Security and Emergency Preparedness Plan (SEPP) means a document developed and adopted by the rail transit agency, describing its security and emergency preparedness policies, objectives, responsibilities, and procedures.

Vehicle means any rolling stock used on a rail fixed guideway public transportation system, including but not limited to passenger and maintenance vehicles.

2.11 Scope and Purpose of Public Transportation Agency Safety Plan

2.11.1 Scope

Because it is the mission of Port Authority's management to provide a safe, reliable transportation system that offers quality customer service in a cost-effective manner, this PTASP is intended to cover all current and future Port Authority operations, services, and projects. In order to implement Port Authority's safety policies, goals, and objectives, this PTASP:

- Appoints the Chief Safety Officer as the SMS Executive;
- Addresses all Port Authority departments and contractors;
- Applies to all activities which involve planning, design, construction, procurement, installation, and testing of equipment or facilities, operations, maintenance, support activities, and the environment in which the transit system operates, including areas of public access and adjacent property;

- Charges each officer, Division Chief, director, manager, supervisor, and employee with responsibility for the PTASP implementation, continual improvement, and success;
- Requires coordination, integration, communication, and cooperation among all officers, Division Chief, directors, managers, supervisors, departments, and employees:
- Encompasses all rail and bus facilities, equipment, vehicles, and employee activities and applies to all who come in contact with the rail and bus systems; and
- Includes interfaces with local, state, and federal governmental entities, regulatory agencies and departments, professional organizations, and the general public.

2.11.2 Purpose

This PTASP establishes the technical and managerial safety management program adopted by Port Authority for the light rail transit and bus service it provides in the County of Allegheny. The PTASP describes Port Authority's service philosophy, organization, operations, management, and safety management system program elements.

The PTASP further identifies Port Authority's safety management policy and the responsibilities associated with safety management at all levels of the organization and for all entities or individuals under contract to Port Authority. The safety management system program formalized by this PTASP applies to every phase in the life cycle of Port Authority's projects and Port Authority's transit system itself. These life cycle phases are commonly referred to as design, procurement, construction, operation, maintenance, and disposal.

The purpose of this PTASP is to implement Port Authority's SMS Program addressing the four components of an effective SMS.

- 1. Safety Management Policy**
- 2. Safety Risk Management**
- 3. Safety Assurance**
- 4. Safety Promotion**

The PTASP introduces safety policies and processes where they are necessary to achieve safety risk management, safety assurance, and safety promotion. Port Authority continually reviews and evaluates the organizational structure to develop and carry out plans, policies, directives, bulletins and initiatives to promote safety and improve the quality of its safety management process. Accordingly, the PTASP is reviewed annually to ensure that all Port Authority systems, equipment, facilities, plans, procedures, manuals, and training programs are continually monitored and

reviewed for compliance with established safety requirements. Specifically, the PTASP:

- Establishes the SMS program on a company-wide basis.
- Provides a framework for implementing the SMS policy and achieving safety goals and objectives.
- Identifies the relationships and responsibilities of each Port Authority department relative to achieving safety goals and objectives.
- Enhances employee safety reporting.
- Identifies the relationships and responsibilities of Port Authority with municipal, county, and state governing bodies and other organizations and agencies that impact transit safety management.
- Provides a mechanism whereby Port Authority can demonstrate its commitment to safety.
- Ensures that, as appropriate, contractors and suppliers meet Port Authority's safety requirements prior to commencing work and/or while on the premises.
- Satisfies federal, state, and local requirements.
- Ensures that the system meets or exceeds accepted industry standards and practices.
- Safety performance is continuously monitoring and improved upon.

2.12 Annual Assessment

The PTASP is intended to be a continuously improving document that is used on a daily basis. To remain viable, the PTASP must be adjusted to reflect changes in Port Authority's organization, procedures, equipment, facilities, and operating environment.

The CSO, as the SMS Executive, will oversee the updating of the PTASP. The CSO will coordinate the annual review and changes necessary to maintain and update the PTASP document. The CSO may request assistance of staff to obtain documents and information to maintain and update the PTASP.

The PAAC Chief of Police is responsible for maintaining and updating the Port Authority Security and Emergency Preparedness Plan (SEPP). The SEPP is classified as a Sensitive Security Document.

Revisions to the PTASP will be necessary as influenced by developments throughout the business cycle of Port Authority. The PTASP will be reviewed *annually* and *updated as needed*. Changes in safety policy, goals, or objectives require the approval of the Chief Executive Officer and review of the RTSRP. The PTASP will be updated following the annual review and include the following actions areas the Port Authority:

- Policy changes (mission, goals, or objectives)
- Organizational changes

- Changes to rules and regulations
- Changes in operating procedures
- Elimination of equipment or addition of new equipment
- Elimination of a facility or addition/acquisition of a new facility

Changes in policy, organization, rules, regulations, or operations necessitating PTASP adjustments will be accomplished within the time limit prescribed in the Plan Revision Schedule.

2.13 RTSRP Requirements

2.13.1 Submittal Procedure

The RTSRP will submit the Procedures and Standards document to PAAC on or before May 15th of each year. Transit agencies covered under the RTSRP must update their Public Transportation Agency Safety Plans and Security & Emergency Preparedness Plans and submit them to RTSRP for review and approval on or before July 31st. In special occasions, outside of the control of the RTSRP, that require the RTSRP Procedures and Standards annual update to be issued after the May 15th deadline, PAAC shall submit the PTASP and SEPP annual updates no later than 60 days after the RTSRP Procedures and Standards are issued.

The Port Authority must also submit to the RTSRP any PTASP or SEPP revisions made between annual updates. Such submissions should be made a minimum of 30 days prior to the time the revision is to be implemented. The RTSRP will review and approve as appropriate such revisions in a manner similar to its annual review.

The RTSRP will make appropriate arrangements with the Port Authority to guard confidential and security-sensitive documents. The method for transmission of SEPPs and other potentially safety sensitive documents will be arranged in accordance with Port Authority confidentiality requirements.

2.13.2 Review and Approval Procedure

The RTSRP will review revised PTASPs and SEPPs to ensure that they comply with the RTSRP standards for such plans. The RTSRP will complete this review within thirty (30) days of receipt of the plan and either approve the plan or provide questions and comments to the Port Authority for further review. RTSRP will notify the Port Authority if additional time is needed to complete the review. If a Port Authority plan complies with the standard, the RTSRP will issue a written approval of the plan and will request that the Port Authority send a final copy of the plan with appropriate approval signatures and other endorsements as needed. The plan the RTSRP reviews and approves will be considered the PTASP or SEPP in effect until another such plan is submitted and approved in accordance with this procedure.

If the RTSRP determines that the submitted PTASP or SEPP does not meet the RTSRP's published standard, it will send a written rejection of the plan, along with a description of what changes are necessary to gain approval. The Port Authority will have 30 days to make such changes, unless otherwise specified in the RTSRP's rejection. The RTSRP will meet with the Port Authority to discuss the RTSRP's review of the PTASP if the Port Authority wishes. In the event the Port Authority objects to a noted deficiency or requested change from RTSRP, it shall provide written notice of its objections, and suggest alternatives within 5 days. The RTSRP and the Port Authority shall review the objections and suggested alternatives and agree to an appropriate course of action within 15 days. This review process may include a meeting of the RTSRP and the Port Authority to clarify any deficiencies or issues.

Whether the plan is approved or rejected, the RTSRP will send the Port Authority a copy of the completed checklist used to review the PTASP or SEPP. The RTSRP will also transmit to the Port Authority any additional information that the RTSRP believes would be helpful in improving the PTASP or SEPP. This may include information about transit industry standards or practices, requirements of other agencies (e.g., the American Public Transportation Association), etc. Still, the RTSRP's checklists, based on its published standard, will be the only standard used for approval or rejection. Additional information from other agencies or the transit industry will be by way of suggestion or information only.

Plans shall be transmitted to RTSRP in a format agreed to by the RTSRP and the Port Authority (electronic or hard copy). Once a plan has been approved by RTSRP and the Port Authority, the Port Authority must submit a copy to the RTSRP in an unalterable format (electronic or hard copy) with all required (Port Authority) approval signatures visible.

2.14 Port Authority Internal PTASP Review and Approval Process

It is the responsibility of the Chief Safety Officer to ensure that the PTASP is developed, implemented, and maintained in an appropriate and effective manner. The OSSRC assists the Chief Safety Officer in this effort. The Chief Safety Officer will also notify the RTSRP staff in writing of any proposed changes to the PTASP, submitted as a draft, for their review and approval as appropriate prior to making changes.

2.14.1 PTASP Revisions

The process for revising the PTASP includes:

- A thorough review of the current PTASP by Port Authority's management
- Complete documentation of all proposed revisions to the PTASP
- OSSRC's review of proposed revisions

- Required approval
- Notification of RTSRP of proposed changes/approval
- Distribution
- Implementation

Updates due to changes in facilities or equipment will be accomplished by the Chief Safety Officer using change pages.

2.14.2 PTASP Revision Schedule

Table 1 - PTASP Revision Schedule Table

Plan Revision Schedule (approximate annual target dates)		
<i>Schedule Element</i>	<i>Target Completion Date</i>	<i>Responsibility</i>
Revised PTASP Revisions Completed	December 20, 2019	Chief Safety Officer
Obtain RTSRP Approval of Revised PTASP	June 15, 2020	Chief Safety Officer
Required Signatures Obtained	July 1, 2020	Chief Safety Officer
PTASP Published electronically on Crossroads	July 2020	Chief Safety Officer
PTASP Manuals Printed and Distributed upon request	July 2020	Chief Safety Officer /Administration
Orientation/Training of Management, Key staff, and ATU Local 85 Leadership	Ongoing	Chief Safety Officer /Management
Revised PTASP Implemented	July 2020	Directors, Chief Officers, and Managers
Initial Assessment of Revised Plan and Recommendations for Changes	On-going	Authority Management and RTSRP

Target completion dates for carrying out all safety-related activities in accordance with the requirements of this PTASP will be determined by the Chief Safety Officer and the OSSRC with approval by the Chief Executive Officer and Port Authority's Board, when required.

2.14.3 Implementing PTASP Revisions

Implementation of the PTASP by all Port Authority departments and firms participating in Port Authority projects will assure that safety is an integral part of all planning, testing, operation, maintenance, construction, procurement, and disposal activities. System Safety continuity will be assured through the evolution of the PTASP, periodic updates of the PTASP, and audits and reviews. All Port Authority Division Chiefs, directors and managers are responsible for carrying out the PTASP procedures pertaining to their respective departments.

Port Authority has adopted an eight-step process for implementing revisions of the PTASP:

- Renew commitment of top management in the SMS/PTASP concept.
- Evaluate appropriate staff and schedule requirements for implementation.
- Coordinate cooperation from all departments.
- Develop and document revisions to the PTASP.
- Obtain top management, including Board approval.
- Distribute the revised PTASP for review and obtain feedback from all Port Authority departments and PRTSRP
- Implement the revised version of the PTASP
- Assess the implemented PTASP and revise as necessary.

This document, dated July 2020, is the original Public Transportation Agency Safety Plan (PTASP).

2.15 Goals and Objectives

2.15.1 Goals

The ultimate goal of Port Authority's SMS is to ensure that it has an inclusive and effective process to direct resources to optimally manage safety risk.

Port Authority has established three SMS program goals to assist in optimally managing its safety risk, all of which are continual long-term (i.e., will have broad and continuing relevance throughout the life of the transit system), qualitative (i.e., not meaningless, but identifying desired results), and realizable (i.e., in some real sense, attainable):

Table 2 - SMS Program Goals

No.	Goal	Responsibility for Monitoring
1	Identify, prioritize, and respond to real and potential hazards of the transit system and impose management controls and design requirements to prevent mishaps either by eliminating hazards or reducing the associated risk to an agreed upon acceptable level, thus providing the safest practicable transit service to the public. Encourage all employees to report safety concerns. Promote safety with passengers and the community at-large.	CEO, all Port Authority Officers, Directors, Managers, Supervisors, Front Line Employees, and Contractors.
2	Safety will be an integral part of current and future design, procurement, construction, testing, training, operation, and maintenance of Port Authority's system.	All Port Authority Officers, Directors, Managers, and Supervisors working through the Operations and Safety & Security Review Committee (OSSRC).
3	Port Authority's operations including the working environment at all Port Authority facilities will meet or exceed all applicable local, state, and federal safety-related codes, ordinances, and regulations.	Chief Operating Officer, Deputy Chief Operating Officers – Transportation and Maintenance

2.15.2 Objectives

Whereas goals are general statements of ultimate end results, objectives state specifically the manner in which goals will be met. To attain its safety management program goals, Port Authority has set nine safety-related objectives. All listed objectives are relevant, widely applicable, and measurable.

Table 3 – Safety Related Objectives

No.	Objectives	Associated Tasks to Achieve
1	Prevent accidents that result in injuries or fatalities among passengers or other members of general public (e.g., reducing	Continually review operating rules and procedure adherence checks performed by Road Operations. SERT to provide data & recommendations to COO and CEO, for all modes.

No.	Objectives	Associated Tasks to Achieve
	accident rates per revenue vehicle-miles).	
2	Reduce incidence, frequency, and severity of on-the-job injuries to Port Authority employees (e.g., hours [days] lost per total hours [days] worked annually).	Trend, monitor, and act upon Safety and Claims Statistics, as well as PAAC Safety Performance measures striving for continual improvement through the OSSRC, with systemwide safety communication.
3	Prevent employment-related disabilities and fatalities (e.g., number of incidents annually).	In addition to scheduled Facility PM's, System Safety routinely conducts inspections of all Port Authority facilities and equipment and reports findings promptly for corrective action as necessary. Corrective Actions are monitored and tracked through completion.
4	Reduce the rate of accidents/incidents that result in damage to Port Authority and public property and equipment (e.g., average number of accidents/incidents per specified number of revenue vehicle-miles).	SOP and Rules Committee meets as needed or at least tri-annually to review, evaluate, and update operating rules and procedures. Safety Event Review Team to assist with incident prevention / reduction and provide data & recommendations, for all modes, as well as PAAC Safety Performance measure data and trends to the COO and CEO.
5	Reduce claim, replacement, and repair costs associated with accidents/incidents that result in damage to Port Authority and public property and equipment (e.g., average cost per accident/incident).	System Safety, Operations and Claims to review and evaluate accident reports, including major accident reports from other systems and review with OSSRC members.
6	Ensure safety critical systems are inspected/tested and serviced on scheduled, periodic basis.	System Safety to perform internal audits of critical maintenance inspection records and procedures annually. Reports and tracks findings and recommendations.
7	Ensure effectiveness of all operation and maintenance training programs.	Rail/Bus Service Delivery and instruction to review and update/revise training programs as required.

No.	Objectives	Associated Tasks to Achieve
8	Ensure effective coordination in emergencies.	Rail/Bus Service Delivery and System Safety to maintain regular communications with Port Authority Police and local government fire and rescue agencies.
9	Provide appropriate data and reports on performance, non-critical system failures, and accidents for use by involved departments and managers.	System Safety and Claims will report Port Authority safety and claims statistics on a routine basis. Safety Communications are ongoing, monthly safety performance report.

An effective PTASP benefits employees, management, and patrons. Safety Management benefits patrons/passengers directly by reducing harmful and potentially harmful incidents.

Indirect benefits to riders include improved service (e.g., through more reliable equipment). The most obvious advantage to employees is fewer harmful and potentially harmful incidents. For managers, reduced staff and equipment casualties translate, respectively, to improved safety management, productivity and system availability.

2.16 Safety Accountabilities and Responsibilities

It is the responsibility of PAAC's Division Chief's, Directors, Managers and Supervisors to ensure that their new hires receive orientation as to on-the-job safety, hazards (real and potential), issues, policies, procedures, adequate training, constant reinforcement and emphasizing safety-awareness. This should also be a primary review component in performance evaluations. Key staff in developing and implementing SMS are as follows:

Table 4 – Key Staff

MODE	TITLE (and # if more than one person)	DEPARTMENT
Light Rail (LR)	Director of Service Delivery	RSD
	Asst. to Director of Service Delivery	RSD
	Manager of Rail Service Delivery/Electronics	RSD
	Manager of Railcar Maintenance	RCM
	Asst. Manager of Railcar Maintenance (2)	RCM
	Manager of Way	RSD
	Manager of Power and Signal	RSD
Motor Bus (MB)	Manager of Facilities	RSD - OPS
	Director of Service Delivery (4)	Bus Operations

	Asst. to Director of Service Delivery (4)	Bus Operations
	Managers of Maintenance & Service, Main Shop, Non-Revenue Vehicles (6)	Bus Operations
LR/MB	Chief Operating Officer	OPS
	Deputy Chief Operating Officers (2)	OPS
	All Safety Staff	L&CS
	Chief of Transit Police	L&CS
	Director of Claims	L&CS
	Asst Dir. of Engineering/Tech Support (2)	P&Engr.
	Managers of Engineering/Tech Support (4)	P&Engr.
	Director of Operations - University	OPS
	Director of Road Operations	OPS
	Manager of Road Operations	OPS

Key departments are expected to provide an SMS liaison(s) who coordinate SMS related activities with the Port Authority System Safety Department. These liaisons, also known as Key staff (and shown above in the table, must fulfill the following: 1) complete the TSI Safety Awareness online training, 2) complete Port Authority's one day SMS training, 3) develop and manage safety roles within their respective departments 4) manage and measure, trend and analyze safety risk associated with their respective department operations and processes by using Port Authority's Safety Risk Management process. 5) encourage safety hazard reporting by all employees and contractors.

Other specific safety responsibilities are listed below, and additional Division and Department organizational information can be found on PAAC's intranet site, Crossroads.

2.16.1 Chief Executive Officer

The PAAC Chief Executive Officer (CEO) directs allocation of available resources as necessary to meet system safety goals and objectives and monitors and evaluates safety programs. In addition, the CEO implements PAAC's safety policy and, provides policy direction to departments while advising in the development of strategies for resolution of major problems.

The CEO, as the SMS Accountable Executive, fully endorses the PAAC Safety Management System Program and Public Transportation Agency Safety Plan (PTASP). The CEO understands the responsibility to ensure that the PAAC PTASP is certified annually as required.

PAAC Executives reporting directly to the CEO include the Chief Legal Officer, Chief Operating Officer, Chief Development Officer, Chief Financial Officer, Chief Information Officer Chief Communications Officer and Chief Human Resources Officer. The Chief Safety Officer, as the appointed SMS Executive Manager, also maintains a

direct reporting line to the Chief Executive Officer for all critical safety matters and a dotted line day-to-day reporting relationship to the Chief Legal Officer for general administrative and Department management functions. The Chief Executive Officer and the Chief Safety Officer meet on a scheduled quarterly basis in one-on-one meetings where the Agency Safety Plan, SMS implementation progress, status of corrective actions of concern, and any other safety items will be discussed. The CSO may meet with or otherwise communicate with the CEO at any other time as deemed necessary by the CSO to ensure the CEO's direct knowledge and input on critical hazards and other safety issues. Safety activities and responsibilities of these executives and their supporting staffs are as indicated, including encouraging employees to report safety concerns and promoting general safety with passengers and the community at-large.

2.16.2 Chief Legal Officer

The Chief Legal Officer responsibilities and activities include:

- Assisting the CEO and CSO in planning and delivery of safe and secure public transportation services.
- Representing the CEO at key meetings and serving as an internal problem solver on major issues, providing policy direction and oversight to special projects.
- Providing direct oversight of Claims, Internal Audit, Legal and Transit Police and Security Department. Providing day-to-day oversight of Safety Department for general administrative and Department management functions.

Direct reports to the Chief Legal Officer include the Chief of Police, Director of Claims, Director of Legal and Consulting Services and the Director of Internal Audit. As noted above, the Chief Safety Officer also has a dotted line day-to-day reporting relationship to the Chief Legal Officer for general administrative and Department management functions.

2.16.2.1 Director of Claims Department

The Director of Claims reports to the Chief Legal Officer. The Claims Department's activities and responsibilities include:

- Providing claims administration
- Conducting tort settlements
- Administering the Workers' Compensation Program
- Member of the Operations Safety and Security Review Committee
- Maintaining accident statistics with regard to employees, vehicles and patron incidents

- Providing medical examinations and consultations for injured, rehabilitated, and new and transferred employees.

2.16.2.2 Director of Internal Audit Department

The Director of Internal Audit reports to the Chief Legal Officer. The Internal Audit Department's system safety activities and responsibilities include:

- Examining and evaluating the PAAC's system of internal control
- Performing PAAC's audits, third party contract audits, Standard of Conduct reviews, internal security program audits and other special projects

The Director of Internal Audit is supported in this effort by two Senior and two Associate Auditors.

2.16.2.3 Director of Legal and Consulting Services

The Director of Legal and Consulting Services reports to the Chief Legal Officer. Department activities and responsibilities include:

- Providing legal opinions to organization as necessary
- Conducting legal defense to claims, employment other suits and filings made against PAAC
- Managing outside law firms
- Forecasting future expenditures for budgeting and planning
- Insurance – property and casualty risk management
- Risk identification, evaluation, control, funding and administration
- Loss prevention and self-insurance

2.16.2.4 Chief of Police and Security Services

The Police Chief is responsible for coordinating day to day operations that include:

- Criminal investigations
- Providing security for PAAC's system including all operating facilities
- Protecting and safeguarding PAAC's employees and riders
- Advocating for and allocating security and emergency preparedness program resources
- Developing relations with local and state investigative agencies
- Providing support to PAAC's System Safety Office in PennDOT, RTSRP, and NTSB investigations
- Taking appropriate action on security emergency preparedness concerns brought to the attention of the Operations Safety and Security Review Committee and other appropriate sources

- Identifying potential security and emergency preparedness concerns of all PAAC employees
- Working to ensure that the PAAC SEPP is implemented on a daily basis
- Ensures that the SEPP is reviewed and updated as needed, but at least annually

2.16.3 Chief Safety Officer

System Safety Department functions include the investigation of PAAC accidents/incidents; conducting inspections and audits; conducting safety training; developing and implementing safety policies and procedures; and monitoring environmental and chemical compliance issues and report findings to the Environmental Program Manager. The Chief Safety Officer, as the appointed SMS Executive Manager, maintains a direct reporting line to the Chief Executive Officer for all critical safety matters and a dotted line day-to-day reporting relationship to the Chief Legal Officer for general administrative and Department management functions.

The Chief Safety Officer activities and responsibilities include:

- Serves as the PAAC SMS Executive Manager
- Chairs the Operations Safety and Security Review Committee
- Participates in project reviews and safety certification efforts
- Coordinates updating and revising PTASP, SEPP, EMP and other system- wide plans
- Coordinates SSO compliance/requirements
- Is notified of Employee Safety Reports (ESRs) including near miss incidents and events for investigation, review, tracking, and trending.
- Initiating and implementing control measures for reducing risks associated with procurement, modification and operation of the transit system.
- Assisting Workers Compensation staff with reviewing and maintaining record-keeping and accident report forms.
- Periodically reviews current standards and guidelines for continuing relevance, especially for the Operations Division.
- Developing accident investigative methodology for each category of severity and conducting investigations as warranted.
- Distributing recommendations for corrective actions that have been developed through the investigation process.
- Monitoring and evaluating corrective actions through the OSSRC.
- Oversees hazard identification and risk reduction for bus and rail revenue service as well as maintenance activities companywide.
- Oversees training programs delivered by the Safety Department
- Overseeing/coordinating the safety of service delivery and PAAC workplaces and verifying that all safety-related maintenance procedures are being followed.

- Frequently monitors and at least semi-annually conduct safety/fire inspections of all PAAC facilities.
- Establishing system safety program requirements for contract service providers and vendors; reviewing specifications prior to requests for bid.
- Establishing and chairing committees to assist with system safety and various operations activities. Coordinating safety aspects of claims with claims and insurance administrators.
- Planning and conducting emergency drills and simulations.
- Scheduling and conducting internal and external safety reviews and internal safety audits.
- Assisting PAAC management in coordinating external safety audits and participation in emergency response exercises.
- Developing, implementing and managing a comprehensive safety and health program in accordance with applicable federal, state and local provisions.
- Ensuring that the PTASP aligns with applicable regulations including federal, state and local requirements, laws, regulations, and codes.
- Assists in appointing key staff tasked with the development and implementation of the PTASP.
- Ensuring the promotion of safety expectations to employees and safety awareness to passengers.
- Implementing processes for all employees to anonymously report safety concerns.

2.16.4 Chief Communications Officer

PAAC Communications Division is headed by a Chief Communications Officer reports to the Chief Executive Officer and is supported by a Public Relations Manager, Internal Communications Program Manager, Senior Government and Community Relations Officer, Director of Marketing and Creative Services and Director of Advertising and Sales. Department Safety responsibilities include:

- Maintaining a liaison with the media following accidents and emergencies involving PAAC and relaying any pertinent safety and security information to the public and the media.
- Communicating safety information to the public via print and electronic media
- Internal Marketing and Communications that include safety promotion and messaging for employees
- Completing creative design and production services for all company publications and materials, including safety messaging
- Assisting the Safety Department with safety promotional campaigns
- Signage displays featuring safety promotion on revenue vehicles
- Internal and external Web site information administration

2.16.5 Chief Human Resources Officer

Human Resources is responsible for assuring that staff positions are effectively defined and classified and that qualified personnel are identified and properly trained to meet staffing needs. Human Resources manage, coordinate and monitor all employee relations activities and employee benefit programs. This division also manages the employee assistance programs, including the program for substance abuse. In addition, Human Resources perform the following specific safety-related functions:

- Developing position descriptions that address safety-related restrictions and requirements.
- Developing and administering medical standards for specific job positions, as warranted.
- Ensuring that successful candidates for positions are capable of safely performing the tasks of these positions on a repetitive basis.
- Administering the application of PAAC's employee discipline policy.
- Maintaining complete and current documentation in personnel files.
- Providing oversight and follow-up of site visits by health professionals (e.g., in connection with PAAC's drug and alcohol testing program).

A Director of Benefits, Compensation Program Manager, Manager EAP, Director Employee Relations/OEO, Director Employment and Development, an HRIS Specialist and staff support the Chief Human Resources Officer in this effort.

Their functions are as described below, and many are directly related to safety of PAAC patrons and employees:

2.16.5.1 Benefits

- Employee health care benefits
- Retirement planning and counseling
- Sick leave administration

2.16.5.2 Compensation

- Human Resources Management Systems
- Job evaluations
- Administration of Performance Management Program
- Job analysis, wage and salary studies
- Administering the Unemployment Compensation Program
- FMLA Administration

2.16.5.3 Employee Assistance Program

- Administer Employee Assistance Programs

2.16.5.4 Employee Relations/Office of Equal Opportunity

- Developing and administering the Equal Employment Office (EEO) Program.
- Monitoring hiring, promotions, terminations and training as an equal opportunity employer
- Administering the Disadvantaged Business Enterprise (DBE) Program
- Monitoring DBE compliance
- Developing and administering Affirmative Action Program
- Investigating and processing discrimination complaints
- Negotiating, interpreting and administering various collective bargaining agreements
- Providing direction to line management in all matters concerning labor and employee relations
- Responsible for all activities of Labor Management Committees
- Oversight of the grievance procedure and arbitrations

2.16.5.5 Employment and Development Department

- Hiring, promotions and transfers
- Applicant testing
- Job postings
- Providing compliance and management development training for supervisory and management personnel
- Providing development opportunities for professional and administrative employees
- Providing computer training for PeopleSoft and Microsoft Office products
- Providing internal consulting services to leaders and teams throughout PAAC
- Drug and Alcohol Compliance Program

2.16.6 Chief Financial Officer

PAAC combines budget, payroll and accounting into one cohesive Finance Division whose Chief Financial Officer reports to the Chief Executive Officer. The Finance Division encompasses six functions: Accounting, Financial Planning and Budgets, Cash Management, Purchasing and Materials, Grants and Capital Programs and Administrative Services. Specific safety-related functions of the Finance Division include facilitating achievement of PTASP objectives through preparation and control of PAAC's budget, staffing level recommendations and monitoring and control of capital programs. Department activities and functions include:

2.16.6.1 Accounting Department

Within the Accounting Department, three Managers report to the Chief Financial Officer. These areas include: Payroll, Accounts Payable and Operating Accounting. Functions of the group include:

- Issuing paychecks
- Paying vendors
- Maintaining ledgers and balance sheets
- Invoicing and receivables

2.16.6.2 Financial Planning and Budgets Department

- Annual Budget
- Monthly Statements
- Cash Flow Models
- Financial Analysis
- FTA and PennDOT Reports

2.16.6.3 Cash Management

- Manage Brinks Contract (includes collection of farebox receipts and revenue service at TVM's)
- TVM maintenance
- TVM complaint investigation
- Change machines
- Third Party retailers (RSOT's)
- Off-board fare collection
- AFCS
- AFCS IT support

2.16.6.4 Purchasing and Materials Management

- Ensuring that the procurement process complies with established procedures for evaluating materials and products for use by PAAC.
- Including safety requirements in contracts such that contractors must meet all applicable state, federal and local regulations as well as PAAC's requirements.
- Developing and maintaining a list of hazardous materials and equipment.
- Enforcing safety procedures related to hazardous substance acquisition, handling, labeling, storage, disposal and record keeping.
- Purchasing of materials, goods, supplies and services (professional, non-professional and construction).
- Disposition/sale of obsolete inventory and retired equipment or vehicles.

- Contract Administration.
- Monitoring inventory levels and establishing appropriate reorder points.
- Identifying obsolete and inactive inventory.
- Distributing parts, materials and supplies to operating locations.
- Ensuring that material handling and storage practices comply with applicable standards.

2.16.6.5 Grants and Capital Programs

- Develop and monitor capital programs related to organizational safety and security requirements.
- Assist with development of Homeland Security Grants and track all expenditures related to such grants.

2.16.7 Chief Information Officer

The PAAC's Information Technology Division is overseen by a Chief Information Officer who reports directly to the Chief Executive Officer and is responsible for oversight of all technology projects including the purchase, installation and maintenance of all hardware and software throughout the organization. Continual and reliable operation of the PAAC computer network and other subsystems and infrastructure is a necessity for the safety operation of the transit system. The Chief Information Officer is supported by the Manager of Data Center Operations, Manager of System Development, Assistant Manager of Architecture & Development, and Transportation Technology Program Managers. Information Technology also oversees the installation and general maintenance of the Local Area Network (LAN) and Wide Area Network (WAN) networks along with all Production and Disaster Recovery Data Centers.

2.17 Bus/Rail Operations and Maintenance Organization and Functions

The Bus/Rail Operations and Maintenance Division is headed by the Chief Operating Officer (COO) who reports to the Chief Executive Officer. The Bus/Rail Operations Division under the direction of the COO is responsible for providing safe and reliable daily service on all scheduled bus/rail routes and maintaining vehicles and other assets and rights-of-way that support both bus and light rail operational activities. Safety related responsibilities of the COO are numerous and cover all aspects of Operations and Maintenance. The safety related functions are further delineated under each of the subordinate positions.

2.17.1 Deputy Chief Operating Officers

The Chief Operating Officer is supported by two Deputy Chiefs. The Deputy Chief of Transportation oversees the Manager of Bus Operations, Manager of Facilities,

Directors of Service Delivery (Bus and Rail) and the Manager of Operations University (Instruction). The Deputy Chief of Maintenance oversees the Manager of Bus Maintenance Support, Manager of Vehicle Projects, Business Analyst – Operations, Manager of Main Shop, Location Bus Maintenance Managers, the Manager for Non-Revenue Vehicle Maintenance and the Manager for Railcar Maintenance. Safety related responsibilities are numerous and cover all aspects of Operations and Maintenance. The safety related functions of each Deputy Chief are further delineated under each of the subordinate positions.

2.17.2 Director of Road Operations

Road Operations within the Bus/Rail Operations Division, headed by a Director, is responsible for monitoring field operations and personnel working in the field under routine and emergency conditions. In addition, Road Operations makes personnel observations to ensure compliance with safety rules and directs and implements restoration of service activities when required. Service restoration activities related to bus/rail service operations include vehicle and equipment troubleshooting, accident/incident investigation and coordinating on-site operational type activities with external service providers.

Director of Road Operations and staff activities and responsibilities include:

- PAAC's continuously identifying any operating hazards that require formal implementation of the Hazard Resolution Procedure.
- Assisting the coordination of external/internal safety audits and participating in emergency response exercises
- Monitoring bus/rail operations by means of field supervision and radio dispatching via BTO (Bus Traffic Operations) and RTO (Rail Traffic Operations).
- Directing operators during emergencies and personnel as required by circumstances.
- Arranging removal of defective or damaged equipment.
- Investigating reports of unsafe conditions.
- Responding to accident locations and initiating accident investigation process as required.
- Serves as Chairman of the Safety Event Review Team (SERT)
- Facilitate private carrier busway permits
- Coordinate all special service activities (special events)
- Coordinate all student transportation contracts
- Monitoring private carrier busway activity

A Manager of Road Operations, Manager of Transportation Training, Assistant Managers, Movement Directors and a staff of Road Operations Supervisors supports the Director in this effort.

2.17.3 Directors of Bus Service Delivery

The Bus Service Delivery function is headed by Directors of Service Delivery at the four bus operations locations. There are two departments within each bus garage, Bus Maintenance reporting to the Acting COO - Maintenance and Bus Service Delivery reporting to the Acting COO - Transportation. The PAAC bus system utilizes preventive maintenance programs that involve performing maintenance on vehicles at regularly scheduled mileage or life cycle driven intervals. Bus Maintenance is responsible for all running repair, inspection work, preventive maintenance, vehicle servicing, cleaning, fueling and preparing vehicles for schedule.

The Directors of Bus Service Delivery within each bus garage is responsible for activities that include:

- Administering and monitoring standardized programs, policies and procedures
- Coordinating daily activities of dispatchers, clerks and secretaries
- Assisting with implementation and monitoring of PAAC's Drug and Alcohol Program

Each Director is supported in this effort by Assistants to Director Service Delivery and Dispatchers.

2.17.4 Manager of Dispatch Training, Logistics and Development

The function within the Port Authority University Department, headed by the Manager of Dispatch Training, Logistics and Development provides support to the operating locations with regard to dispatch training and development. The Manager of Dispatch Training, Logistics and Development activities include:

- Hiring of location Dispatchers
- Training and development of location Dispatchers
- Creation of Dispatch Extra list and PDIA list.
- Assist in PTASP implementation.
- Monitoring and providing reports on operator of hours of service.

2.17.5 Director of Rail Service Delivery

The Director of Rail Service Delivery is responsible for providing safe and reliable daily service on all scheduled PAAC rail routes. The responsibilities include both operation of the light rail vehicle service and all maintenance of the major sub-systems of the light rail system, and three dedicated busways, park and rides, bridges, tunnels, parking garage, incline, and in addition, considers safety of the employees working on the light rail/busway system. The Assistant to the Director of Rail Service Delivery and the various Managers in Rail Service Delivery support the Director of Rail Service

Delivery in this effort.

The Director of Rail Service Delivery safety related activities and responsibilities include:

- Coordinating with the Chief Safety Officer to incorporate Port Authority's safety policy, rules and procedures in verbal instruction and hands-on training of Rail Operators and all personnel in the Way, Power, Electronics and Signal Departments.
- Continuously identifying any operating hazards within the light rail/busway system that require formal implementation of the Hazard Resolution Procedure.
- Ensuring that all Operations and Maintenance adhere to established standard operating procedures, bulletins, rules and the processes set out in the PTASP, Rulebook, and SOPs.
- Assisting as needed in the coordination of external/internal safety audits and participating in emergency response exercises.
- Coordinating with the Chief Safety Officer on System Safety requirements.
- Taking appropriate action to resolve reported or otherwise identified hazards in a timely manner. As appropriate, coordinating the development and testing of engineering solutions as a means of addressing vehicle-related hazards.

2.17.5.1 Assistant to the Director of Rail Service Delivery

The Assistant. to the Director of Rail Service Delivery and staff safety related activities and responsibilities include:

- Administering and monitoring standardized programs, policies and procedures of the rail system for Operators/Off Board Fare Collectors.
- Coordinating with the Chief Safety Officer to incorporate Port Authority's safety policy, rules and procedures in verbal instruction and hands-on training of Rail Operators/Off Board Fare Collectors.
- Continuously identifying any operating hazards within the light rail system that require formal implementation of the Hazard Resolution Procedure.
- Ensuring that Rail Operators adhere to established standard operating procedures, bulletins, rules and the processes set out in the PTASP, Rulebook, and SOPs.
- Assisting as needed in the coordination of external/internal safety audits and participating in emergency response exercises.
- Coordinating and overseeing safety-related activities of Rail Operators ensuring compliance with the PTASP.
- Assist with implementation of PAAC's Drug and Alcohol Program for Rail Operators.
- Coordinating with the Chief Safety Officer on System Safety requirements.
- Administering safety programs and initiatives for rail operators.

- Taking appropriate actions to resolve reported or otherwise identified hazards in a timely manner. As appropriate, coordinating the development and testing of engineering solutions as a means of addressing vehicle-related hazards.

2.17.5.2 Manager of Rail Service Delivery/Electronics

The Manager of Rail Service Delivery/Electronics and staff safety related activities and responsibilities include:

- Administering and monitoring standardized programs, policies and procedures of the rail system including primary and direct oversight of the Rail Traffic Operations Center (RTO).
- Coordinating daily activities and scheduling of movement directors.
- Coordinating all maintenance work through the Right of Way Allocation meetings so that work occurs in a safe and timely manner.
- Coordinating daily activities and scheduling maintenance activities of all work.
- Oversight of Movement Director training program and re-training following rail incidents
- Coordinating with the Chief Safety Officer to incorporate PAAC's safety policy, rules and procedures in verbal instruction and hands-on training.
- Continuously identifying any operating hazards within the light rail system that require formal implementation of the Hazard Resolution Procedure.
- Ensuring that Rail Operations and RTO staff adhere to established standard operating procedures, bulletins, rules and the processes set out in the PTASP, Rulebook, and SOPs.
- Taking appropriate actions to resolve identified hazards in a timely manner
- Assisting in the coordination of external/internal safety audits and participating in emergency response exercises.
- Coordinating safety-related activities of Rail Operations ensuring compliance with the PTASP.

The Manager of Rail Service Delivery is supported directly by Movement Directors in operation of the RTO, Assistant Manager of Electronics, and indirectly by Instructors, Dispatchers, Road Operations Supervisors, and Operators in all other aspects of rail operations, and Electronics Maintenance.

2.17.5.3 Manager of Railcar Maintenance

Railcar Maintenance supports Rail Service Delivery by ensuring that all rail revenue vehicles and equipment are safe in design and use, highly reliable, clean and available for service on a timely basis. These tasks are accomplished by a well-trained and experienced staff. The Manager of Railcar Maintenance reports to the

Acting Chief Operating Officer-Maintenance. Responsibilities include:

- Assuring that the rail car fleet is properly maintained and available in safe operating condition according to PAACs procedures.
- Providing necessary mechanisms for reporting defects and hazardous conditions.
- Administering and monitoring standardized programs, policies and procedures.
- Assist with implementation of PAAC's Drug and Alcohol Program.
- Coordinating with the Chief Safety Officer on system safety requirements.
- Administering safety programs for department employees.
- Monitoring the collection and disposal of waste (e.g., oils and clarified wastewater sludge) to effect safe handling and minimize employee and environmental exposure to potentially hazardous products and materials.
- Taking appropriate action to resolve reported or otherwise identified hazards in a timely manner. As appropriate, coordinating the development and testing of engineering solutions as a means of addressing vehicle-related hazards.
- Coordinating with the Chief Safety Officer in the development and implementation of risk reduction measures associated with the operation and maintenance of PAAC rail revenue vehicles. Assists the Acting Chief Operating Officer - Maintenance and System Safety in hazard recognition and mitigation.
- Monitoring procurement practices to ensure that safety is not compromised in replacing parts.
- Monitoring man-machine interfaces.
- Where applicable, participating in the development of technical equipment specifications and procedures that address the safety requirements of regulatory agencies and PAAC. Ensuring that replacement equipment meets safety requirements prior to acceptance. Examining equipment and systems to explore the potential for increased efficiencies and improvements in user and fire safety as well as in performance.
- Assuring that the communications electronic systems are properly maintained and operational on a daily basis. Ensuring that equipment is in compliance with manufacturer specifications, federal requirements and directives.
- Ensuring that all emergency communications electronic equipment is in compliance with organizational requirements along with the associated guidelines.
- Monitoring compliance of organizational policies and procedures.
- Ensuring that applicable safety practices and procedures are adhered to relative to the communications and electronic service industry.

The Manager of Railcar Maintenance is supported by Assistant Managers, Shop

Section Supervisors, Carhouse Forepersons, a Warranty Administrator, Technicians, Mechanics, Service Persons, Maintenance Clerks, and Building Maintainers.

2.17.5.4 Manager of Way

The Manager of Way reports to the Director of Rail Service Delivery and assures all light rail track and the busways are maintained and in proper condition to provide for safe and reliable rail and bus service. The Way Manager uses Port Authority's Track Inspection Standards as well as other industry and PAAC documents as a benchmark for overseeing the safe condition of the rail and other structures. In addition, they assist the Director of RSD and System Safety in hazard recognition and mitigation.

- Assist with implementation of PAAC's Drug and Alcohol Program for Way Dept employees.
- Coordinating with the Chief Safety Officer on system safety requirements.
- Administering safety programs for department employees.
- Taking appropriate action to resolve reported or otherwise identified hazards in a timely manner. As appropriate, and with System Safety, coordinating the development and testing of solutions as a means of addressing track or other hazards.
- Coordinating with the Chief Safety Officer in the development and implementation of risk reduction measures associated with track, switch, busway, bridge and other system appurtenances.
- Monitoring procurement practices to ensure that safety is not compromised in replacing parts.

The Way Department is responsible for performing the following maintenance and upkeep functions:

- concrete work
- bridge repairs
- shop repairs (cement/steps/railings)
- drain repairs
- fence repairs
- track repairs
- grass cutting
- tree removal
- asphalt repairs
- retaining wall repairs
- oil spill clean up
- debris clean up on PAAC right of ways (landslides/flooding)
- incline rail and tie repairs

- snow removal (hand)
- snow removal (plowing)

2.17.5.5 Manager of Power and Signals

The Manager of Power and Signals reports to the Director of Rail Service Delivery. The Power and Signals Department is responsible for the maintenance of signals, overhead wire and power for light rail vehicles. The Manager of Power and Signals uses industry standards and PAAC documents as a benchmark for overseeing the condition of the light rail transit systems which they oversee.

- Assist with implementation of PAAC's Drug and Alcohol Program for department employees.
- Coordinating with the Chief Safety Officer on system safety requirements.
- Administering safety programs for department employees.
- Taking appropriate action to resolve reported or otherwise identified hazards in a timely manner. As appropriate, coordinating with System Safety in the development and testing of solutions as a means of addressing known hazards.
- Coordinating with the Chief Safety Officer in the development and implementation of risk reduction measures associated with the operation and maintenance of the power and signaling systems.
- Monitoring procurement practices to ensure that safety is not compromised in replacing parts of or entire systems.

The systems include traction power, OCS, Rail/Busway signals (train control, electric track switches, railroad grade crossings, pedestrian flashers on the busway/rail line and gating systems for HOV tunnel).

2.17.5.6 Manager of Facilities

The Manager of Facilities reports to the Deputy Chief Operating Officer for Transportation. The Manager of Facilities uses industry standards and PAAC documents as a benchmark for overseeing the safe condition of the buildings, stations, platforms, stops, and other structures which they oversee. In addition, they assist the Director of RSD and System Safety in hazard recognition and mitigation for both customers and employees.

- Assist with implementation of PAAC's Drug and Alcohol Program for department employees.
- Coordinating with the Chief Safety Officer on system safety requirements.
- Administering safety programs for department employees.
- Taking appropriate action to resolve reported or otherwise identified hazards in a timely manner. As appropriate, coordinating the development

and testing of solutions as a means of addressing facilities, station, stop, and building related hazards.

- Coordinating with the Chief Safety Officer in the development and implementation of risk reduction measures associated with the maintenance of all Facilities. Assists the Deputy Operating Chief in hazard recognition and mitigation.
- Monitoring procurement practices to ensure that safety is not compromised in replacing parts and systems.

The Facilities Department is responsible for performing the following maintenance and repair functions:

- plumbing
- heating and air conditioning
- wiring repairs
- stations/support facility AC power distribution
- elevators/escalators
- incline controls and building facility maintenance
- building repairs (walls, etc.)
- platform repairs
- painting
- tunnel ventilation fans, dampers, controls
- subway maintenance
- snow removal (hand)
- all lighting
- shelter/platform cleaning
- drywall, flooring, carpentry.

2.17.5.7 Director of Operations Training - University

The Director of Operations Training - University responsibilities include the design, planning, and implementation of PAAC Operations University training programs for operators, Dispatch, MAP, Maintenance and first-line supervisors. This position reports to the Deputy Chief Operating Officer – Transportation. These include:

- Ensures safety of customers and employees is the top priority in all training.
- Works closely with the System Safety Department to set safety targets and goals
- Works closely with the Chief Safety Officer to instill a culture of safety throughout the Authority by inclusion of safety into all training programs
- Assist with implementation of PAAC's Drug and Alcohol Program for department employees.
- Administering safety programs for department employees.
- Taking appropriate action to resolve reported or otherwise identified hazards in a timely manner. As appropriate, coordinating with System

Safety in the development and testing of solutions as a means of addressing operational hazards.

- Coordinating with the Chief Safety Officer in the development and implementation of risk reduction measures associated with bus and rail operations.
- Coordinates with the Chief and Deputy Chief Safety Officer to incorporate PAAC's safety policy, rules and procedures in verbal instruction and hands-on training.
- Collaborates with functional management teams to assess ongoing and future training and development needs
- Assures operational and safety effectiveness of established programs
- Develops program delivery schedules that provides operations training on a scheduled and as-needed basis.
- Approves new training techniques and suggests enhancements to existing training programs.
- Manages and develops operations training professionals.

2.18 Chief Development Officer

The Chief Development Officer oversees the Planning and Engineering Division and reports directly to the Chief Executive Officer. The Chief Development Officer is supported by a Chief Engineer, Director of Planning and Director of Scheduling.

2.18.1 Service Development

The Service Development Department, headed by the Director for Service Planning & Scheduling, is responsible for two (2) functional areas: Scheduling & Service Development and Data & Passenger Amenities. This Department is also responsible for monitoring route productivity; developing service standards; developing and disseminating public timetables and rider information; maintaining scheduling and stop databases including GPS data; managing uniform contracts, development of fare, stop and service policies; and fare instruments, in addition to:

- Ensuring that Service Delivery schedules allow sufficient running time for safe operations at speed limits and adequate recovery time for bus and rail operators.
- Investigating operator complaints of insufficient running time. Reporting any suspected or known safety hazards to System Safety and other operations departments as needed.
- Working with System Safety to reduce and mitigate known hazards.
- Developing work runs and schedule relief in accordance with collective bargaining agreements and regulatory requirements.
- Monitoring over 7,000 bus stops and approximately 202 shelters and develops fare, stop and service policies.

- Performs paratransit planning required in Americans with Disabilities Act, works with the Committee for Accessible Transportation (CAT) representing transit riders with disabilities.

2.18.2 Planning

The Planning Department, headed by the Director of Planning, is responsible for four (4) functional areas: Transit Analysis (TA), Transit-Oriented Communities (TOC), Long-Range Planning (LRP) and General Planning (GP). These functional areas are responsible for:

- Developing data cleaning processes, visualizations and analyses to support the work of the Planning and Development Division and other Divisions as needed (TA)
- Maintaining a GIS program to support organizational geodatabases and mapping (TA)
- Prioritizing and planning improvements to existing stations and station areas along the Authority's fixed guideway network, as well as planning for future station infill development (TOC)
- Coordinating with and informing internal stakeholders across various Divisions (including Safety Staff) on Planning Division and public realm infrastructure projects (GP)
- Coordinating with and informing external planning partners (municipalities, developers and authorities) on public realm and transit infrastructure projects and land use planning (TOC, GP)
- Developing long-range and system-level plans for the Authority (LRP)
- Developing corridor infrastructure plans for expanding the fixed guideway transit system (LRP, GP)
- Prioritizing and developing infrastructure plans to support both Planning and Service Development needs in the public realm such as infrastructure that supports efficient, accessible and safe bus stops, bus routes, and pathways to and from stops and stations for riders (GP)

2.18.3 Engineering/Technical Support

The Engineering/Technical Support Department headed by the Chief Engineer and is responsible for providing engineering and technical support and oversight for the design and construction of PAAC capital projects. The Chief Engineer and entire Engineering staff must ensure that all capital, engineering, and maintenance projects, system wide, follow required FTA and PennDOT safety requirements. The Chief Engineer is supported by a Director of Technical Support and Capital Programs and various Assistant Directors and Program Managers

2.18.3.1 Director of Technical Support/Capital Programs

The Director of Technical Support/Capital Programs responsibilities include:

- Ensuring that equipment purchased by PAAC meets safety requirements
- Ensure that all capital projects follow required FTA and PennDOT safety requirements.
- Ensuring that design requirements have been coordinated with all appropriate departments

The Director of Technical Support/Capital Programs is supported by (2) Assistant Director of Capital Programs and (4) Capital Program Managers (Manger of Capital Programs – Systems, Manager of Capital Programs – Facilities, Manager of Capital Programs – Expansions, and Manager of Capital Programs – Structures) and a staff that includes:

- Budget & Project Control Analysts
- Railcar Engineer and Power/Railcar Engineer
- Systems/Facilities Engineers and Sr. Engineers
- Sr. Engineering Technicians
- Sr. Environmental Specialist
- Project Architects
- Drafter
- Specifications Writer

The Director of Technical Support/Capital Programs and staff safety related activities and responsibilities include:

- Administering warranty programs for Capital Projects
- Coordinating major equipment rebuild, repair and retrofits
- Performing inspection and testing activities necessary to ensure that equipment, supplies and operations result in the desired level of safety
- Reporting any suspected or known hazards to System Safety and working forward with System Safety to reduce or eliminate the hazard(s).
- Establishing and maintaining current drawings for PAAC facilities and systems
- Analyzing equipment failures and identifying trends
- Documenting equipment and facility modifications and informing affected staff of these modifications.
- Lead derailment investigation for derailment committee that in turn develops findings and recommendations
- Assisting in accident investigations when required.

- Administering/monitoring construction contracts to ensure that the contractor's procedures conform with current PennDOT and OSHA regulations and that the results are safe for PAAC and/or public use
- Monitoring the installation of facilities, systems and equipment to ensure compliance with contractual requirements and procedures
- Technical Specification Writing
- Coordinating communications concerns relative to joint missions and training exercises with local municipalities and the City of Pittsburgh.
- Approval of any new, upgraded or modification of communications or electronic systems
- Environmental Impact studies
- Emergency response to hazardous waste, chemical spills and/or other issues required by regulation

2.19 Operations Safety and Security Review Committee (OSSRC)

The OSSRC has been established to facilitate safety and security coordination among departments. Chaired by the Chief Safety Officer, the Committee is charged with the responsibility of assisting the Chief Executive Officer in maintaining a high level of system safety and security. This committee brings together the common sense, technical expertise and unique perspectives of a variety of staff to focus upon system safety/security issues. The committee functions as the interdepartmental unit empowered to lead PAAC in hazard management efforts.

The OSSRC focuses on company-wide unresolved safety and security issues, hazards, and resolutions beyond the authority or scope of the Operations Division Safety Committees and also may address safety matters and corrective actions related to Safety Event Review Team (SERT) work and other hazards. Senior Management, Division Safety Committees, and the Safety Event Review Team (SERT) may forward serious and/or company-wide credible safety hazards and issues to the OSSRC for review, action, and resolution. This committee meets monthly and is comprised of Senior Staff and Director-level Management personnel as well as ATU Local 85 Leadership. The Chief Safety Officer chairs the OSSRC and is responsible for tracking items through monthly detailed meeting minutes as well as seeing that any issue rated as unacceptable is added to the CAP log. The OSSRC assists in the implementation of all PAAC's safety/security-related activities. Typical tasks will include:

- Assuring implementation of the PTASP. At least annually, review recommendations of PAAC's management for updating the PTASP.
- Monitoring compliance of each department with specific safety responsibilities and procedures as set out in the SSPP by reviewing the results of safety audits conducted by the System Safety Department.
- Participating in accident/incident investigations as appropriate and in accordance with PAAC's established procedures. The type of accident/incident dictates who

investigates the accident/incident, appropriate forms or reports to be used and who is to be notified.

- Performing system safety review functions as required. Coordinating and follow up with any external safety audits; participate as required (e.g., PennDOT RTSRP, annual fire prevention, peer reviews).
- Collecting, analyzing and reporting safety and hazard data. Review maintenance and failure rate data to identify safety problems.
- Reviewing any data and trends regarding hazards or other safety issues that are transmitted from the Safety Event Review Team (SERT)
- Reviewing results of safety inspections, emergency drills, simulations and tests. Develop action as appropriate.
- Preparing written documentation of all meetings, tasks, activities, investigations, analyses and recommendations, and following up on all pending matters.
- Establishing safety goals and objectives as defined by the PAAC employee safety program.

The OSSRC meets at least once per month. Committee members include:

- Safety Representative, Local 85
- Local 85 Vice President/Safety Representative
- Local 85 President
- Director of Claims
- Chief of Transit Police
- Chief Operating Officer
- Chief Engineer
- Director Rail Service Delivery
- Deputy Chief of Operations - Maintenance
- Chief Safety Officer

2.19.1 Operations Safety Field Committee

The Operations Safety Field Committee functions as a subcommittee of the OSSRC. The primary focus of the OSFC is to resolve field-related operating issues that may require a change, modification and/or addition to fixed safety/operational assets and/or operating procedures as a result of accidents, incidents, or field observations that relate to day-to-day safe operations. This Committee meets on an as-needed basis and reports its activities to the OSSRC at scheduled meetings. Committee members include:

- Chief Safety Officer
- Chief of Transit Police
- Chief Operating Officer
- Director of Claims

2.19.2 Operations Division Safety Committees

These safety committees are located at each major operating location including Ross, Collier, West Mifflin, East Liberty, Manchester and the Light Rail System to include South Hills Junction. Their members monitor activities with respect to that location and assess real, potential, and credible hazards to ensure safe and secure working conditions for employees throughout the entire Division, its maintenance areas, and its service area. Members are included on each committee to represent Operations and Maintenance Management. Union represented Operators and Maintenance persons are also appointed to the committees with input from Union Leadership. The committee responsibilities encompass on the road/route issues, revenue service vehicle issues, and other types of vehicles as well. Management and Safety representatives at each location will initiate and coordinate efforts to bring issues forward to the committee and work together to mitigate/resolve them. Generally, seven to ten members comprise a Division committee and the meetings are held monthly at each location. The location Safety Officer chairs the committee and is responsible for keeping detailed meeting minutes that reflect the reported hazards and other issues discussed and how they are addressed. All Division employees assist the safety committees within their respective disciplines and are encouraged to expeditiously report hazards and near misses. The Safety Officer will follow procedures to have hazards logged and addressed.

2.19.3 Safety Event Review Team (SERT)

The SERT focuses on operations safety events, accidents and incidents, both bus and rail, and identifying any trends associated with same, and working to find ways to reduce the number of and severity of accidents, hazards and so forth in revenue operations. This is accomplished by considering Operators and their safety records, the revenue vehicles and their subsystems, routing, stop locations, and more. The members work to find and decide on corrective actions and then proceed toward implementation by working with Management, represented persons, vendors, and other parties as needed. Those implemented corrective measures are then reviewed by the team on a periodic basis to ensure effectiveness.

The committee meets monthly and is comprised of 8 to 10 members. The Committee Membership includes representatives from Safety, Port Authority Police, ATU Local 85, Claims, and Operations. The SERT is chaired by the Director of Road Operations and he/she is responsible for documentation of meetings by keeping detailed minutes.

2.20 Safety Tasks

This section includes a discussion of Port Authority's SMS policies, including those used to achieve safety goals and objectives, manage safety risks, and promote safety. Section 2 also describes the specific activities required to implement the SMS program, including:

tasks performed by the System Safety Unit and safety-related tasks performed by other Port Authority departments. The section describes the process used to collect, maintain, analyze, and distribute safety data. The section describes the process used by Port Authority to develop, maintain, and ensure compliance with rules and procedures having a safety impact, including a description of the identification, implementation, and supervision of operating and maintenance rules and procedures and description of the process for documenting results and incorporating them into the hazard management program. Section 2 includes a description of the process used for facilities and equipment safety inspections, including identification of the facilities and equipment subject to regular safety-related inspection and testing; techniques used to conduct inspections and testing; inspection schedules and procedures; and description of how results are entered into the hazard management process. The section describes Port Authority's maintenance audits and inspections program, including identification of the affected facilities and equipment, maintenance cycles, documentation required, and the process for integrating identified hazards into the hazard management process.

2.21 Port Authority Safety Management System Policy Statement

The Port Authority Safety Management System Policy Statement establishes the SMS philosophy of the Port Authority, identifies the extent of commitment to safety, and designates and directs responsible individuals to carry out the Port Authority Public Transportation Agency Safety Plan. The SMS Policy Statement with the commitment and enabling signature of the Port Authority's AE/CEO and approval of the Board provides the basis from which safety rules and applicable procedures are carried out and empowers the Port Authority's Safety Unit to develop, implement, administer and maintain a comprehensive, integrated, and multimodal Public Transportation Agency Safety Plan, including auditing the Port Authority for compliance with the Plan. It also establishes that all employees and contractors are responsible to work in a safe manner, at all times. This includes identifying real and potential hazards and assisting to mitigate and resolve the hazard to a reasonable level.

2.22 Activities Required to Implement Public Transportation Agency Safety Plan

To achieve its safety responsibilities as outlined in this document, the System Safety Unit takes a proactive approach by performing the following activities in unison with the respective operating or functional unit personnel:

- Conducts PRTSRP mandated internal safety audits.
- Conducts safety inspections at South Hills Junction and South Hills Village and all bus garage locations.
- Conducts derailment investigations in conjunction with derailment committee.
- Conducts grade crossing accident investigations.
- Performs investigation of major accidents involving employees/equipment.

- Conducts investigation of miscellaneous safety complaints.
- Writes reports on significant incidents.
- Chairs safety committees at South Hills Junction/South Hills Village and all Bus Divisions.
- Performs follow-up to safety committee issues.
- Assists outside general liability insurer with property inspections.
- Accompanies PA Rail Transit Safety Review Program personnel on site visits.
- Trains maintenance employees on Employee Right to Know Act, and Hazardous (chemical) Awareness and Respiratory Protection Program and other safety-related programs.
- Trains Pittsburgh Fire Department and other emergency responders on LRV and Fire/Life Safety issues.
- Conducts training with Pittsburgh Bureau of Fire; Municipal Fire Departments; EMS; City, County and Federal SWAT Teams; and other emergency responders concerning emergency response to mass transit incidents (bus and rail).
- Assists with development, review and revisions of Standard Operating Procedures in conjunction with SOP Committee.
- Participates on Technical Advisory Committee for all bus/rail construction projects.
- Assists with development of bus/rail operating orders as needed.
- Conducts safety inspections during construction projects.
- Assists Division Directors with operational-related safety issues.
- Reviews and comments on any changes to safety elements within the rail system and busways.
- Investigates employee lost time injuries as warranted.
- Tracks employee injury and vehicle accident data for statistical comparison, distributes monthly report.
- Participates on weekly Right-of-Way Allocation Committee meetings.
- Participates in development and implementation of system emergency drills.
- Conducts contractor training for entry into rights-of-way.
- Assists in the implementation of requirements relative to hazardous substances.
- Participates, when requested, on ad hoc committees to review/resolve transit issues.

2.22.1 Tasks Performed by Safety Unit

The System Safety Unit, headed by the SMS Executive / Chief Safety Officer, reports to the AE/CEO for safety matters and issues; and the Chief Legal Officer for the day to day operating function. The System Safety Unit currently consists of the Chief Safety Officer, Deputy Chief Safety Officer, (4) Safety Officer – (2) Rail & (2) Bus, and an Occupational Safety and Health Officer. The Occupational Safety and Health Officer has system-wide responsibilities. Specific safety responsibilities by position are as listed below.

2.22.1.1 Chief Safety Officer

- Serves as the PAAC SMS Executive Manager
- Participates in formal meetings with the PRTSRP, Chief Executive Officer and Chief Legal Officer on safety issues.
- Participates as a member of the Safety Event Review Team (SERT).
- Serves as Chairman of the Operations Safety and Security Review Committee (OSSRC).
- Is notified of Employee Safety Reports (ESRs) including near miss incidents and events for review, tracking, and trending.
- Develops and implements safety policies, procedures, and programs.
- Develops and implements the Internal System Audit Program in compliance with State Oversight Requirements.
- Monitors safety performance measurement trends and communicates with the CEO, management staff, and employees on a regular basis.
- Supervises and oversees work of assigned system safety staff, conducts performance reviews with staff, and initiates appropriate actions related to such.
- Serves as Port Authority's main contact with PRTSRP and other agencies related to safety programs and procedures. Prepares case records, documents, and data required by such agencies.
- Investigates employee and vehicle accidents/incidents and injuries; works with Operations Training to develop programs to reduce accidents and injuries.
- Conducts inspections and researches safety codes, standards, and regulations.
- Compiles and analyzes health and safety statistics; produces reports, records, documents, and manifests; accesses and updates database files.
- Coordinates through staff safety meetings at locations and attends meetings, conferences and group functions related to safety.
- Develops and conducts training sessions through staff relating to safety issues such as: Right to Know, Emergency Evacuation, Investigations, etc.
- Identifies health and safety concerns, analyzes reports and information, develops programs for accident/injury prevention, and submits recommendations to reduce frequency of accidents.
- Assists in claim investigations of work-related injuries or disabilities; assists in preparation of files for litigation.
- Develops and implements departmental budget and cost controls.
- Performs other job-related duties, as directed.

2.22.1.2 Deputy Chief Safety Officer

- Assists Division Directors in identification and resolution of employee and operations safety issues.

- Manage the various regulatory compliance issues; developing and implementing accident and injury prevention policy, procedures and programs; and supervising the Safety Officer Bus, Rail & Facilities.
- Primary role in investigating employee injuries, vehicle accidents and hazards within the required timeframe.
- Employee Safety Reports (ESR) – is notified of ESRs including near miss incidents and events for investigation, review, tracking, and trending.
- Develops and implements system audits and facility inspections as defined by the Public Transportation Agency Safety Plan and/or the Chief Safety Officer.
- Coordinate division safety meetings; attends meetings, conferences and group functions related to safety.
- Develop, manage and conduct as necessary safety & emergency management training for employees, contractors and emergency responders.
- Maintains database to track safety/operational statistics and provide data to appropriate staff.
- Communicates safety performance trends to CSO and Port Authority staff.
- This job description is not meant to be all-inclusive. It reflects management's assignment of essential job functions, which are subject to change at any time.

2.22.1.3 Safety Officer

- Investigates employee and vehicle accidents, incidents, and injuries; assists in developing programs to reduce injuries.
- Conducts audits, inspections, and researches safety codes, standards and regulations.
- Compiles and analyzes health and safety statistics; produces reports, records, documents, and manifests; accesses and updates database files.
- Communicates safety performance trends to CSO and Port Authority staff.
- Coordinates safety meetings at locations and attends meetings, conferences, and group functions related to safety.
- Conducts training sessions relating to safety issues such as: Right to Know, Emergency Evacuation, Safety Guidelines, Accident Investigations, etc.
- Identifies health and safety concerns, analyzes reports and information, develops programs for accident/injury prevention, and submits recommendations to reduce frequency of accidents.
- Assists in claim investigations of work-related injuries or disabilities; assists in preparation of files for litigation.
- Identifies safety and health concerns and issues and participates in the design and implementation of safety policies and procedures.
- Performs other job-related duties, as directed.

2.22.1.4 Occupational Safety & Health Officer

- Develops and implements effective occupational safety and health goals, standards, policies and procedures for operations and administration staff.
- Communicates safety performance trends to CSO and Port Authority staff.
- Establishes and implements effective industrial hygiene and occupational policies and procedures for operating and maintenance functions.
- Evaluates and approves chemical products and hazardous substances tested, procured, or used by Port Authority personnel or on Port Authority property. Researches references of hazardous materials and toxicology. Investigates complaints and evaluates field applications.
- Recommends, monitors, and evaluates Port Authority compliance activities with federal/state safety and health laws, hazardous waste management plans, and environmental standards and regulations.
- Establishes criteria for the selection, maintenance, and proper use of personal protective clothing and equipment.
- Participates in the development of training programs for Right-to-Know and Hazardous Materials Management, Safety Guidelines and other regulatory mandated training.
- Oversees development and maintenance of industrial hygiene, occupational management databases and computer information systems.
- Performs other job-related duties, as assigned.

Table 5 - System Safety Unit and Operations Group Task Matrix

System Safety Tasks of System Safety Unit	RTSRP	Executive Staff	System Safety Unit	OSSRC	Safety Event Review Team	Division Safety Committee	Engineering \ Technical Support	Bus \ Rail Operations	Corporate Services	Finance	Human Resources	Frequency D-Daily M-Monthly Q-Quarterly Y-Yearly AR-As Required
SMS Policy Statement	A	A	P	S	RC	NR	S	S	S	S	S	AR
Develop Multimodal PTASP	A	A	P	RC	RC	NR	RC	RC	RC	S	S	AR
Update PTASP	A	A	P	RC	A	NR	RC	RC	RC	S	S	Y/AR
Liaison with RTSRP	P	S	P	S	S	NR	S	S	P	S	S	AR
Employee Safety Reporting	P	p	S	P	P	P	S	P	S	S	S	AR
External Audits	P	RC	S	S	S	NR	S	S	S	S	S	AR
Conduct Internal Safety Audits	A	A	P	S	S	S	S	S	P	S	S	Y
Develop Emergency Response Plans	A	A	P	S	S	S	S	S	P	S	S	AR
Collect and classify all Traffic and Passenger Accidents/ Incidents	RC	S	P	S	S	NR	S	P	P	S	S	D
Maintain Database of Traffic and Passenger Accidents/ Incidents	RC	S	P	S	S	NR	S	P	P	S	S	D
Issue Accident/Incident Statistics and Reports	A	RC	P	S	RC	NR	S	S	P	S	S	M
Review Incident/ Accident Trends	RC	S	P	RC	P	S	S	P	P	S	S	M/AR
Conduct Traffic and Passenger Serious Accident/ Incident Investigations	A	A	P	S	S	NR	S	P	P	S	S	AR

System Safety Tasks of System Safety Unit	RTSRP	Executive Staff	System Safety Unit	OSSRC	Safety Event Review Team	Division Safety Committee	Engineering/ Technical Support	Bus/Rail Operations	Corporate Services	Finance	Human Resources	Frequency D-Daily M- Monthly Q- Quarterly Y-Yearly AR-As Required
Report required threshold Accidents/Incidents to Outside Agencies (RTSRP, NTSB)	A	A	P	S	RC	NR	S	S	S	S	NR	AR
Safety Risk Management	A	S	P	P	S	P	P	P	P	S	S	AR
Configuration Management	RC	S	S	S	RC	S	P	P	S	S	S	AR
Safety Certification	RC	S	P	P	RC	NR	P	S	S	S	S	AR
Design Reviews	RC	S	P	P	RC	RC	P	P	P	S	S	AR
Occupational Safety and Health Programs	RC	S	P	S	S	S	P	P	P	S	S	AR
Safety Communication	NR	S	P	P	S	S	RC	P	S	S	S	AR
Safety Training	RC	S	P	S	S	S	S	P	S	S	S	AR

A – Approval. The identified participant(s) is (are) responsible for approval of specified documentation

P – Primary Task Responsibility. The identified participant(s) is (are) responsible for the preparation of the specified documentation.

S – Secondary or Support Task Responsibility. The identified participant(s) is (are) to provide the necessary support to accomplish and document the task.

RC – Review and Comment Responsibility. The identified participant(s) may review and provide comment on the task or requirement.

NR – No role.

2.22.2 Safety Tasks Performed by Other Transit Units

To ensure that transit operations are conducted in the safest manner possible, all Port Authority personnel have been assigned safety responsibilities. In addition, within the Port Authority, each department/function provides distinct roles and carries out specific responsibilities to ensure the protection of passengers, employees, local responders, the community served, and Port Authority's property. Port Authority department's safety responsibilities and roles are summarized below.

2.22.2.1 Bus/Rail Operations

Road Operations

- Monitor bus/rail operations by means of field supervision and radio dispatching.
- Direct operators during emergencies and personnel as required by circumstances.
- Arrange removal of defective or damaged equipment.
- Investigate and mitigate reports of unsafe conditions.
- Respond to accident locations and initiate accident investigation process as required. Reporting cause to Division Directors and System Safety.
- Facilitate private carrier busway permits.
- Coordinate all special service activities (special events)
- Coordinate all student transportation contracts
- Monitor private carrier activity
- Training and qualifying new bus/rail operators on routes and equipment operation, defensive driving, pre-trip inspection, emergency procedures and injury and illness prevention.
- Performing re-training following bus/rail accident/incidents, occupational injuries, as warranted.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Bus Main Shop

- Ensure that programs, retrofits, major repairs and maintenance practices are performed safely and monitored for safety-related issues.
- Ensure that functions comply with the PTASP.
- Train all new mechanics and technicians to safely and effectively inspect, maintain and repair Authority's fleet
- Train maintenance staff in emergency/safety procedures and injury and illness prevention as appropriate
- Monitoring body and paint, mechanical repairs and component rebuild activities for quality

- Coordinating and monitoring the Vehicle Improvement program, and all off-property repairs
- Oversee and coordinate the Bus Fleet Quality Assurance Program.
- Assist in accident investigation process as required.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Bus Service Delivery

- Ensure safety of bus garages including mechanical and electrical equipment
- Administer and monitor standardized programs, policies and procedures
- Coordinate daily activities of dispatchers, clerks and secretaries
- Implement and monitor Port Authority's Drug and Alcohol Program
- Ensure that preventive maintenance, running repairs, housekeeping and vehicle servicing are performed safely
- Ensure that Bus Service Delivery staff adheres to established standard operating procedures, bulletins, rules, and the processes set out in the PTASP.
- Take appropriate actions to resolve identified hazards in a timely manner
- Assist in the coordination of internal safety audits and participate in emergency response drills as required
- Coordinate safety-related activities of the bus maintenance staff and ensure compliance with the PTASP
- Oversee field maintenance programs and practices and ensure compliance with the PTASP
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Bus/Rail Operations Department

- Continuously identify any operating hazards that require implementation of the Hazard Resolution Procedure
- Ensure that Bus Operations staff adheres to established standard operating procedures, bulletins, rules and processes set out in the PTASP through oversight of Division Dispatchers.
- Take appropriate action to resolve identified hazards in a reasonable manner
- Assist in coordination of external/internal safety audits and participating in emergency response exercises
- Coordinate safety-related activities of Bus Operations ensuring compliance with PTASP
- Assist in accident investigations/safety committees as required to identify and correct root causes
- Continually communicate safety performance throughout unit.

- Continually promote safe work practices.
- **Operator Inspections-Bus**

A daily inspection by the dispatcher of operators is required prior to pull-out. It will be the responsibility of the Division Assistant to the Director to periodically audit bus operator inspection practices, procedures, and documentation to verify whether department supervisory personnel are enforcing compliance with the requirements and maintaining proper documentation. Dispatcher inspection of operators includes:

- Adherence to scheduled reporting time & hours of service requirements
- Apparent impaired condition
- Proper uniform
- Proper equipment
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Rail Service Delivery Department

- Administer and monitor standardized programs, policies and procedures
- Coordinate daily activities of rail operations supervisors, instructors, dispatchers, movement directors, off board fare collectors, and operators
- Implement and monitor Port Authority's Drug and Alcohol Program
- Ensure that Rail Service Delivery staff adheres to established standard operating procedures, bulletins, rules, and the processes set out in the PTASP.
- Take appropriate actions to resolve identified hazards in a timely manner
- Assist in the coordination of internal safety audits and participate in emergency response drills as required
- Provide oversight and monitor training of new rail operators on routes and equipment operation, pre-trip inspection, emergency procedures and injury and illness prevention
- Require re-training following accidents, changes to system, occupational injuries as warranted
- Coordinate with Chief Safety Officer/Deputy Chief Safety Officer to incorporate Port Authority's SMS safety policy, rules and procedures in verbal instruction and hands-on training
- Continuously identify any operating hazards that require implementation of the Hazard Resolution Procedure
- Ensure that Rail Service Delivery staff adheres to established standard operating procedures, bulletins, rules and processes set out in the PTASP
- Coordinate safety-related activities of Rail Operations staff and ensure compliance with the PTASP
- Continually communicate safety performance throughout unit.

- Continually promote safe work practices.
- **Operator Inspections-Rail**

Daily inspections by the dispatcher of operators are required prior to pull-out. It is the responsibility of the Assistant to the Director of Rail Service Delivery to periodically audit rail operator inspection practices, procedures, and documentation to verify whether department supervisory personnel are enforcing compliance with the requirements and maintaining proper documentation. Dispatcher inspection of operators includes:

- Adherence to scheduled reporting time & hours of service requirements
- Apparent impaired condition
- Proper uniform
- Proper equipment
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Railcar Maintenance

- Assure that the rail car fleet is properly maintained and available in safe operating condition according to Port Authority's procedures.
- Provide necessary mechanisms for reporting defects and hazardous conditions.
- Coordinate with the Chief Safety Officer/Deputy Chief Safety Officer on SMS safety requirements.
- Administer and monitor standardized programs, policies, and procedures.
- Administer safety programs for department employees.
- Implementing and monitoring Port Authority's Drug and Alcohol Program.
- Monitor the collection and disposal of waste (e.g., oils, clarified wastewater sludge) to affect safe handling and minimize employee and environmental exposure to potentially hazardous products and materials.
- Take appropriate action to resolve reported or otherwise identified hazards in a reasonable manner. As appropriate, coordinate the development and testing of engineering solutions as a means of addressing vehicle related hazards.
- Coordinate with the Chief Safety Officer/Deputy Chief Safety Officer in the development and implementation of safety risk reduction measures associated with the operation and maintenance of Port Authority's rail revenue vehicles.
- Monitor procurement practices to ensure that safety is not compromised in replacing parts. Monitor man-machine interfaces.
- Where applicable, participates in the development of technical equipment specifications and procedures that address the safety requirements of

regulatory agencies and Port Authority. Ensure that replacement equipment meets safety requirements prior to acceptance. Examine equipment and systems to explore the potential for increased efficiencies and improvements in user and fire safety as well as in performance.

- Assure that the communications electronic systems are properly maintained and operational on a daily basis. Ensure that equipment is in compliance with manufacturer specifications, federal requirements, and directives.
- Ensure all emergency communications electronic equipment is in compliance with organizational requirements along with the associated guidelines.
- Coordinate communications concerns relative to joint missions and training exercises with local municipalities and the City of Pittsburgh.
- Monitor compliance of organizational policies and procedures.
- Ensure that applicable safety practices and procedures are adhered to relative to the communications and electronic service industry.
- Ensure compliance with Configuration Management Procedures as they relate to vehicle maintenance and design.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Facilities and Rail Maintenance

- **Facilities**

- Ensure safety of Port Authority buildings including mechanical and electrical equipment, bus shelters, stops and stations.
- Ensuring that bus and rail stations and stops meet applicable safety requirements and Port Authority practices.
- Ensure necessary procedures are in place and implemented for conducting maintenance activities in a safe and effective manner for all.
- Maintain Port Authority facilities and provide for enforcement of required safety procedures for all maintenance activities.
- Assist System Safety Department in conducting safety-fire inspections and correcting any identified deficiencies.
- Assisting as necessary in accident investigations.
- Assist System Safety department with internal audit process as required.
- Maintain Port Authority facilities and rail systems. Provide for enforcement of required safety procedures for all maintenance activities.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

- **Non-Revenue Vehicles**

- Document and maintain accurate records of inspections, maintenance work, accident-related activities and emergency responses.
 - Perform preventive and corrective maintenance of Port Authority's non-revenue fleet.
 - Perform body and mechanical repairs, excluding major hydraulic and high-rail components on all of the non-revenue vehicles.
 - Schedule and coordinate preventive maintenance activities.
 - Maintain vehicle records.
 - Develop preventive maintenance procedures with input from employees who perform the work.
 - Monitor the performance of preventive maintenance efforts.
 - Document and maintain accurate records of inspections, maintenance work, accident-related activities, and emergency responses.
 - Ensure necessary procedures are in place and implemented for conducting maintenance activities in a safe and effective manner for all.
 - Continually communicate safety performance throughout unit.
 - Continually promote safe work practices.
- **Power and Signal**
 - Ensure signals and switches are maintained safely and efficiently.
 - Ensure substations and catenary is maintained safely and efficiently.
 - Maintain Port Authority radios and fareboxes.
 - Document and maintain accurate records of inspections, maintenance work, accident-related activities and emergency responses.
 - Ensure necessary procedures are in place and implemented for conducting maintenance activities in a safe and effective manner for all.
 - Maintain Port Authority facilities and provide for enforcement of required safety procedures for all maintenance activities.
 - Assisting as necessary in accident investigations.
 - Assist System Safety department with internal audit process as required.
 - Ensure compliance with Configuration Management Procedures as they relate to system signals, switches and other safety critical systems.
 - Continually communicate safety performance throughout unit.
 - Continually promote safe work practices.
- **Way**
 - Assist System Safety Department in conducting safety-fire inspections and correcting any identified safety deficiencies.
 - Ensure busways, rail rights of way, inclines, tunnels, bridges, parking lots and structures are maintained safely and efficiently.

- Ensure that rail system work is coordinated within Facilities and with Right-of-Way Allocation Committee to complete work safely and efficiently without adversely affecting revenue service.
- Develop preventive maintenance procedures with input from employees who perform the work.
- Monitor the performance of preventive maintenance efforts.
- Document and maintain accurate records of inspections, maintenance work, accident-related activities, and emergency responses.
- Ensure necessary procedures are in place and implemented for conducting maintenance activities in a safe and effective manner for all.
- Maintain Port Authority facilities and rail systems. Provide for enforcement of required safety procedures for all maintenance activities.
- Serve as liaison with various municipalities and other external agencies for hazard resolutions involving street operations.
- Assist as necessary in accident investigations.
- Ensure compliance with Configuration Management Procedures as they relate to system signals, switches and other safety critical systems.
- Schedule and coordinate preventive maintenance activities.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

2.22.2.2 Planning and Development Division

The Planning and Development division includes Engineering, Technical Support, Capital Programs, Service Development and Planning.

Technical Support and Capital Programs

- Ensure that equipment purchased by Port Authority meets safety requirements and that design requirements have been coordinated with all appropriate departments.
- Administer warranty programs.
- Coordinate major equipment rebuild, repair, and retrofits.
- Perform inspection and testing activities necessary to ensure that equipment, supplies, and operations result in the desired level of safety.
- Establish and maintain current drawings for Port Authority facilities and systems.
- Analyze equipment failures and identifies trends.
- Document Capital equipment and facility modifications and informs affected staff of these modifications.
- Participate in derailment committee, conduct investigations, developing findings and recommendations.
- Assist in accident investigations when required.

- Administer/monitor construction contracts to ensure that the contractor's procedures conform with current PennDOT and OSHA regulations and that the results are safe for Port Authority and/or public use.
- Monitor the installation of facilities, systems, and equipment to ensure compliance with contractual requirements and procedures.
- Technical specification writing.
- Coordinate communications concerns relative to joint missions and training exercises with local municipalities and the City.
- Approval of any new, upgraded or modification of communications or electronic systems.
- Environmental impact studies.
- Emergency response to hazardous waste, chemical spills and/or other issues required by regulation.
- Ensure compliance with configuration Management Procedures as they relate to safety critical systems.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

Service Development & Planning

- Ensure that service delivery schedules allow sufficient running time for safe operations at speed limits and adequate recovery time for bus/rail operators.
- Investigate operator complaints of insufficient running time.
- Develop work runs and schedule relief in accordance with collective bargaining agreements and regulatory requirements such as hours of service.
- Assist with development of marketing tools to increase the transit safety awareness of riders and others coming in contact with Port Authority.
- Maintaining a liaison with the media following accidents and emergencies involving Port Authority.
- Assist with development and implementation of community outreach programs via print and electronic media promoting the safe use of Port Authority services.
- Ensure operational safety of stops, shelters, and route design and layover/recovery areas.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

2.22.2.3 Finance Division

- Facilitate achievement of PTASP objectives through preparation and control of Port Authority's budget and staffing level recommendations.
- Ensure necessary funding for safety programs/projects.

- Ensure necessary programs are in place to monitor and track Transit Security Grants and other Homeland Security Funds.
- Ensure that the procurement process complies with established procedures for evaluating materials and products for use by Port Authority.
- Ensure that all contracts comply with Port Authority's PTASP and all federal, state and local fire/safety regulations.
- Include safety requirements in contracts such that contractors must meet all applicable state, federal, and local regulations as well as Port Authority's requirements.
- Develop and maintain a list of hazardous materials and equipment.
- Enforce safety procedures related to hazardous substance acquisition, handling, labeling, storage, disposal, and record keeping.
- Stock quality parts.
- Specification and quality assurance of parts and materials.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

2.22.2.4 Human Resources Division

- Develop position descriptions that address safety-related restrictions and requirements.
- Negotiating, interpreting and administering various collective bargaining agreements, and providing direction to line management in all matters concerning labor and employee relations.
- Oversight of grievance procedures and arbitrations.
- Develop and administer medical standards for specific job positions, as warranted.
- Ensure that successful candidates for positions are capable of safely performing the tasks of these positions on a repetitive basis.
- Administer the application of Port Authority's employee discipline policy.
- Provide oversight and follow-up of site visits by health professionals (e.g., in connection with Port Authority's drug and alcohol testing program).
- Maintain complete and current documentation in personnel files.
- Assist bus and rail maintenance trainers and instructors in training program development.
- Oversight of all training databases through PeopleSoft and/or other programs.
- Continually communicate safety performance throughout unit.
- Continually promote safe work practices.

2.22.2.5 Marketing and Communications Division

The Marketing and Communications Division with its five departments serves an important role in Safety Management Systems through the Safety Promotion component.

PUBLIC RELATIONS - Public relations handles media relations, employee communication and stakeholder communication. A staff member is on call 24/7 to assist the media with news coverage regarding Port Authority. We work with communities and news media during emergency incidents to provide them with updates, and work closely with Operations, Customer Service, Safety and Police to keep customers informed about severe weather effects, safety events, and other incidents.

CUSTOMER SERVICE staff is available for questions, and to listen to safety comments and concerns. Messaging is received by telephone, social media, and email.

COMMUNITY OUTREACH is a comprehensive, coordinated program that not only promotes the services and programs of Port Authority, but encourages and garners meaningful public input which is essential to the safety success of the organization.

MARKETING plays an important role in communicating the Authority's mission and strategic initiatives, including safety, both internally and externally. The department oversees a variety of tasks including writing/producing/designing promotional and awareness materials, coordinating special events, conducting market research, promoting new product and service launches.

ADVERTISING Department oversees and develops all transit advertising on both stations and revenue vehicles. Transit Advertising is an important medium for reaching the customers and the general public with informative safety messaging.

- Facilitate achievement of PTASP Safety Communications and Safety Promotion objectives.
- Foster the public sense that Port Authority is a safety minded organization with a caring, professional, skilled staff.
- Promote and foster a reputation of being responsive to the safety concerns of the riding and non-riding public.
- Ensure safety related concerns of customers and the public are provided to both operations and the safety department.
- Ensure necessary funding for safety messaging and promotion throughout the Authority, both for employees and customers.
- Assist Safety Department and other divisions in safety promotion and performance throughout the Authority.

- Assist the Safety Department as requested by promoting safe work practices, safe riding, safe operations and more through a variety of means including Crossroads, Social Media, internal, and external communications.
- Continually promote safe work practices within the Division.

2.22.2.6 Information Technology Division

The Information and Technology Division with its three departments serves an important role in Safety Management Systems thru the Safety Promotion component.

ARCHITECTURE - The Architecture group's primary responsibility is to maintain the Port Authority's numerous software applications, evaluate third party solutions and develop new applications as needed.

INFRASTRUCTURE - The Infrastructure group's primary responsibility is to maintain the Port Authority's computer hardware that consists of telecommunications, networking, PC's and servers and specialized software for daily operations.

TRANSPORTATION TECHNOLOGY - The Transportation Technology division is responsible for creating and maintaining Intelligent Transportation Systems that make Port Authority bus and rail more convenient and safer for everyone.

- Facilitate achievement of PTASP Safety Communications and Safety Promotion objectives.
- Assist Safety Department with new and innovative means to collect and evaluate safety data from source such as accidents, incidents, near misses, employee reporting and customer feedback.
- Assist Safety Department and other divisions in safety promotion and performance throughout the Authority.
- Assist Safety Department in developing real-time dashboards to be displayed on Crossroads to better inform PAAC employees on safety metrics and trends.
- Assist the Safety Department as requested by promoting safe work practices, safe riding, safe operations and more through a variety of means including Crossroads, Social Media, internal, and external communications.
- Continually promote safe work practices within the Division.

Table 6 – Bus Operations Safety Task Matrix

SAFETY RELATED TASKS OF: BUS OPERATIONS	System Safety Unit	Bus Operations	Facilities, Rail, & Rail Car Maintenance	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Ensure that Bus Operations staff adhere to established standard operating procedures, bulletins, rules and the processes set out in the PTASP	S	P	S	S	S	S	S	D
Administer and monitor standardized programs, policies and procedures	S	P	S	S	S	S	S	D
Coordinate daily activities of Bus Operations staff	S	P	S	S	S	S	S	D
Identify, report, and mitigate hazards	S	P	S	S	S	S	S	D
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR
Ensure safety of bus garages including mechanical and electrical equipment	S	P	S	S	S	S	S	D

<p>SAFETY RELATED TASKS OF: BUS OPERATIONS</p>	<p>System Safety Unit</p>	<p>Bus Operations</p>	<p>Facilities, Rail, & Rail Car Maintenance</p>	<p>Technical Support and Capital Programs</p>	<p>Finance Division</p>	<p>Human Resources Division</p>	<p>Service Planning & Development</p>	<p><i>Frequency</i> <i>D - Day</i> <i>M - Month</i> <i>Q - Quarter</i> <i>Y - Year</i> <i>AR - As Required</i></p>
<p>Assist in the coordination of external/internal safety audits and participate in emergency response plans as required</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>AR</p>
<p>Participate on safety committees as required</p>	<p>P</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>AR</p>
<p>Coordinate safety-related activities of the Bus Operations staff and ensure compliance with the PTASP</p>	<p>S</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>D</p>
<p>Ensures that preventive maintenance, running repairs, housekeeping and vehicle servicing are performed safely</p>	<p>S</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>D</p>
<p>Oversee field maintenance programs and practices and ensure compliance with the PTASP</p>	<p>S</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>D</p>
<p>Train and qualify new bus operators and maintenance personnel</p>	<p>S</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>AR</p>
<p>Perform re-training following traffic accidents and occupational injuries, as warranted</p>	<p>S</p>	<p>P</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>S</p>	<p>AR</p>

<p>SAFETY RELATED TASKS OF: BUS OPERATIONS</p>	<p>System Safety Unit</p>	<p>Bus Operations</p>	<p>Facilities, Rail, & Rail Car Maintenance</p>	<p>Technical Support and Capital Programs</p>	<p>Finance Division</p>	<p>Human Resources Division</p>	<p>Service Planning & Development</p>	<p><i>Frequency</i> <i>D - Day</i> <i>M - Month</i> <i>Q - Quarter</i> <i>Y - Year</i> <i>AR - As Required</i></p>
<p>Coordinate with Chief Safety Officer to incorporate Port Authority's SMS safety policy, rules and procedures in verbal instruction and hands-on training</p>	S	P	S	S	S	S	S	AR
<p>Continuously identify any operating hazards that require formal implementation of the Hazard Resolution Procedure</p>	S	P	S	S	S	S	S	AR
<p>Alert emergency response</p>	S	P	S	S	S	S	S	AR
<p>Oversee and coordinate bus training programs</p>	S	P	S	S	S	S	S	AR
<p>Monitor bus operations by means of field supervision and radio dispatching</p>	S	P	S	S	S	S	S	D
<p>Direct bus operations personnel during emergencies as required by circumstances</p>	S	P	S	S	S	S	S	AR
<p>Arrange removal of defective or damaged equipment</p>	S	P	S	S	S	S	S	AR
<p>Investigate reports of unsafe conditions</p>	S	P	S	S	S	S	S	AR

<p>SAFETY RELATED TASKS OF: BUS OPERATIONS</p>	<p>System Safety Unit</p>	<p>Bus Operations</p>	<p>Facilities, Rail, & Rail Car Maintenance</p>	<p>Technical Support and Capital Programs</p>	<p>Finance Division</p>	<p>Human Resources Division</p>	<p>Service Planning & Development</p>	<p><i>Frequency</i> <i>D - Day</i> <i>M - Month</i> <i>Q - Quarter</i> <i>Y - Year</i> <i>AR - As Required</i></p>
<p>Respond to accident location and initiate accident investigation process as required; report causes to Division Director</p>	S	P	S	S	S	S	S	AR
<p>Facilitate private carrier permits</p>	S	P	S	S	S	S	S	AR
<p>Coordinate all special service activities (special events)</p>	S	P	S	S	S	S	S	AR
<p>Monitor private carrier activity</p>	S	P	S	S	S	S	S	AR
<p>Ensure that service delivery schedules allow sufficient running time for safe operations at speed limits and adequate recovery time for bus operators</p>	S	S	S	S	S	S	P	AR
<p>Ensure that programs, retrofits, major repairs and maintenance practices are performed safely and monitored for safety-related issues</p>	S	P	S	S	S	S	S	AR
<p>Train all new mechanics and technicians to safely and effectively inspect, maintain and repair Authority's fleet</p>	S	P	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: BUS OPERATIONS	System Safety Unit	Bus Operations	Facilities, Rail, & Rail Car Maintenance	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Train operations and maintenance staff in emergency/safety procedures and injury and illness prevention as appropriate	S	P	S	S	S	S	S	AR
Monitoring body and paint, mechanical repairs and component rebuild activities for quality	S	P	S	S	S	S	S	AR
Coordinating and monitoring the Vehicle Improvement Program, and all off-property repairs	S	P	S	S	S	S	S	AR
Oversight and coordination of Bus Fleet Quality Assurance Program	S	P	S	S	S	S	S	AR
Assist in accident investigation process as required	S	P	S	S	S	S	S	AR
Investigate operator complaints of insufficient running time	S	P	S	S	S	S	P	AR

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment

Table 7 - Rail Service Delivery Safety Task Matrix

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Administer and monitor standardized programs, policies and procedures for Rail Service Delivery	S	P	S	S	S	S	S	S	D
Coordinate daily activities of rail operations supervisors, instructors, dispatchers, movement directors, off-board fare collectors and operators	S	P	S	S	S	S	S	S	D
Ensures that Rail Service Delivery staff adheres to established standard operating procedures, bulletins, rules, and processes set out in PTASP.	S	P	S	S	S	S	S	S	D
Implement and monitor Port Authority's Drug and Alcohol Program	S	P	S	S	S	S	S	S	D
Assist in coordination of internal safety audits and participate in emergency response plans as required	P	S	S	S	S	R/C	R/C	S	AR

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency</i> D - Day M - Month Q - Quarter Y - Year AR - As Required
Provide oversight & monitor training of new rail operators on routes and equipment operation, pre-trip inspection, emergency procedures and injury and illness prevention	S	P	S	S	S	S	S	S	AR
Require re-training following accidents, changes to system, and occupational injuries as warranted	S	P	S	S	S	S	S	S	AR
Coordinate safety-related activities of the rail transportation staff and ensure compliance with PTASP	S	P		S	S	S	S	S	D
Coordinate with Chief Safety Officer/Deputy Chief Safety Officer to incorporate Port Authority's SMS safety policy, rules and procedures in verbal instruction and hands-on training	S	P	S	S	S	S	S	S	AR
Identify, report, and mitigate all hazards. Includes operational hazards, vehicle hazards, and the use of	S	P	S	S	S	S	S	D	D

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Engineering or other departments for resolution									
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	AR	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR	AR
Draft and implement procedures for job tasks	S	P	S	S	S	S	S	AR	AR
Conduct QA/QC reviews and monitor/trend performance on continuous basis, in collaboration with System Safety and Internal Audit	S	P	S	NR	S	S	S	AR	AR
Maintain safety records for Rail Service Delivery employees relative to accidents and rule violations	S	P	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Assign staff as appropriate to participate in a meaningful way on safety-related committees. Provide data and other assistance as required.	S	P	S	S	S	S	S	S	AR
Alert emergency response	S	P	S	S	S	S	S	S	AR
Assure that rail car fleet is maintained and available in safe operating condition according to Port Authority's procedures. Provide necessary mechanisms for reporting defects and hazards. Coordinate with Chief Safety Officer/Deputy Chief Safety Officer on system requirements.	S	P	S	S	S	S	S	S	AR
Administer and monitor safety program for department employees	S	P	S	S	S	S	S	S	D

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Monitor the collection and disposal of waste (e.g., oils, clarified wastewater sludge) to affect safe handling, and minimize employee and environmental exposure to potentially hazardous products and materials.	S	P	S	S	S	S	S	S	D
Coordinate with Chief Safety Officer/Deputy Chief Safety Officer in the development and implementation of risk reduction measures associated with the operation and maintenance of Port Authority's rail revenue vehicles. Monitor procurement practices to ensure that safety is not compromised in replacing parts. Monitor man-machine interfaces.	S	P	S	S	S	S	S	S	AR
Where applicable, participate in the development of technical equipment specifications and	S	P	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
procedures that address safety requirements of regulatory agencies and Port Authority.									
Ensure that replacement equipment meets safety requirements prior to acceptance. Examine equipment and systems to explore the potential for increased efficiencies and improvements in user and fire safety as well as in performance	S	P	S	S	S	S	S	S	AR
Assure that the communications electronic systems are properly maintained and operational on a daily basis. Ensure that the equipment is in compliance with manufacturer specifications, federal requirements and directives.	S	P	S	S	S	S	S	S	D
Ensure all emergency communications electronic equipment is	S	P	S	S	S	S	S	S	D

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
in compliance with organizational requirements along with the associated guidelines.									
Coordinate communications concerns relative to joint missions and training exercises with local municipalities and the City	S	P	S	S	S	S	S	S	AR
Monitor compliance of organizational policies and procedures	S	P	S	S	S	S	S	S	AR
Ensure necessary procedures are in place and implemented for conducting maintenance activities in a safe and effective manner.	S	P	S	S	S	S	S	S	D
Monitor the performance of preventive maintenance efforts through the Rail and Facilities Administrator coordinator	S	P	S	S	S	S	S	S	D

SAFETY RELATED TASKS OF: Rail Service Delivery	System Safety Unit	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Technical Support and Capital Programs	Finance Division	Human Resources Division	Service Planning & Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Assist System Safety Unit in conducting safety/fire inspections and correcting any identified safety deficiencies	P	P	P	S	S	S	S	S	AR
Document and maintain accurate records of inspections, maintenance work, accident-related activities and emergency responses	S	P	S	S	S	S	S	S	AR
Monitor the performance of preventive maintenance efforts	S	P	S	S	S	S	S	S	D
Ensure compliance with Configuration Management Procedures as they relate to vehicle maintenance and design	S	P	S	S	S	S	S	S	D

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment
NR – No Role

Table 8 - Technical Support and Capital Programs Safety Task Matrix

SAFETY RELATED TASKS OF: TECHNICAL SUPPORT and CAPITAL PROGRAMS	System Safety Unit	Technical support And Capital Programs	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Ensure that equipment purchased by Port Authority meets safety requirements and that design requirements have been coordinated with all appropriate departments.	S	P	S	S	S	S	S	S	AR
Administer warranty programs.	S	P	S	S	S	S	S	S	AR
Coordinate major rebuild, repair, and retrofits	S	P	S	S	S	S	S	S	AR
Perform inspection and testing activities necessary to ensure that equipment, supplies, and operations result in the desired level of safety.	S	P	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: TECHNICAL SUPPORT and CAPITAL PROGRAMS	System Safety Unit	Technical support And Capital Programs	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Monitor the performance of preventive maintenance efforts. Stop work on all unauthorized modifications.	S	P	S	S	S	S	S	S	D
Analyze equipment failures and identify trends.	S	P	S	S	S	S	S	S	D
Establish and maintain current drawings for Port Authority facilities and systems	S	P	S	S	S	S	S	S	D
Document equipment and facility modifications and informs affected staff of these modifications	S	P	S	S	S	S	S	S	AR
Participate in derailment committee activities, conduct investigations and develop findings and recommendations	S	P	S	S	S	S	S	S	AR
Assist in accident investigations when required	P	S	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: TECHNICAL SUPPORT and CAPITAL PROGRAMS	System Safety Unit	Technical support And Capital Programs	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Identify, report, and mitigate all hazards. Includes operational hazards, vehicle hazards, and the use of Engineering or other departments for resolution	S	P	S	S	S	S	S	NR	AR
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	AR	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR	AR
Coordinate communications concerns relative to joint missions and training exercises with local municipalities and the City	S	P	S	S	S	S	S	S	AR
Approval of any new, upgrade or modification of communications or electronic systems	S	P	S	S	S	S	S	S	AR
Environmental Impact studies	S	P	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: TECHNICAL SUPPORT and CAPITAL PROGRAMS	System Safety Unit	Technical support And Capital Programs	Rail Service Delivery	Facilities, Rail, & Rail Car Maintenance	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency</i> <i>D - Day</i> <i>M - Month</i> <i>Q - Quarter</i> <i>Y - Year</i> <i>AR - As Required</i>
Emergency response to hazardous waste, chemical spills and/or other issues required by regulation	S	P	P	P	P	S	S	S	AR
Ensure compliance with Configuration Management Procedures as they relate to safety critical systems	S	P	S	P	S	S	S	S	AR

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment
NR – No Role

Table 9 - Facilities and Rail Maintenance Task Matrix

SAFETY RELATED TASKS OF: FACILITIES, RAIL, and RAIL CAR MAINTENANCE	System Safety Unit	Facilities, Rail, & Rail Car Maintenance	Technical Support and Capital Programs	Rail Service Delivery	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Ensure signals and switches are maintained safely and efficiently	S	P	S	S	S	S	S	S	D
Ensure substations and catenary are maintained safely and efficiently	S	P	S	S	S	S	S	S	D
Maintain Port Authority radios and fareboxes	S	P	S	S	S	S	S	S	D
Assist System Safety Department in conducting safety-fire inspections and correcting any identified deficiencies	S	P	S	S	S	S	S	S	AR
Document and maintain accurate records of inspections, maintenance work, accident-related activities and emergency responses	S	P	S	S	S	S	S	S	D
Assisting as necessary in accident investigations, testing and start-up activities as appropriate	S	P	S	P	S	S	S	S	AR
Assist System Safety Unit with internal audit process as required	S	P	S	P	S	S	S	S	AR
Identify, report, and mitigate all hazards. Includes operational hazards, vehicle hazards,	S	P	S	S	S	S	S	NR	D

SAFETY RELATED TASKS OF: FACILITIES, RAIL, and RAIL CAR MAINTENANCE	System Safety Unit	Facilities, Rail, & Rail Car Maintenance	Technical Support and Capital Programs	Rail Service Delivery	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
and the use of Engineering or other departments for resolution									
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	NR	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR	AR
Draft and implement procedures for job tasks	S	P	S	S	S	S	S	AR	AR
Conduct QA/QC reviews and monitor/trend performance on continuous basis, in collaboration with System Safety and Internal Audit	S	P	S	S	S	S	S	AR	AR
Develop preventive maintenance procedures with input from employees who perform work	S	P	S	S	S	S	S	S	AR
Ensure that rail system work is coordinated with Facilities and with Right-of-Way Allocation Committee to complete work safely and efficiently without adversely affecting revenue service	S	P	S	P	S	S	S	S	D

SAFETY RELATED TASKS OF: FACILITIES, RAIL, and RAIL CAR MAINTENANCE	System Safety Unit	Facilities, Rail, & Rail Car Maintenance	Technical Support and Capital Programs	Rail Service Delivery	Bus Operations	Service Planning & Development	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Ensure safety of Port Authority buildings, rail stations and stops meet applicable safety requirements and Port Authority practices	S	P	S	P	S	S	S	S	D
Ensure busways, rail rights of way, inclines, tunnels, bridges, parking lots and structures are maintained safely and efficiently	S	P	S	S	S	S	S	S	D
Provide for enforcement of required safety procedures for all maintenance activities	S	P	S	S	S	S	S	S	D
Ensure compliance with Configuration Management Procedures as they relate to system signals, switches & other safety critical systems	S	P	P	S	S	S	S	S	D

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment
NR – No Role

Table 10 - Finance Division Safety Task Matrix

SAFETY RELATED TASKS OF: FINANCE DIVISION	System Safety Unit	Finance Division	Bus Operations	Rail Service Delivery	Facilities, Rail, and Rail Car Maintenance	Technical Support and Capital Programs	Human Resources Division	Service Planning and Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Facilitate achievement of PTASP objectives through preparation and control of Port Authority's budget and staffing level recommendations.	S	P	S	S	S	S	S	S	D
Ensure necessary funding for safety programs/projects	S	P	S	S	S	S	S	S	D
Ensure that the procurement process complies with established procedures for evaluating materials and products for use by Port Authority	S	P	S	S	S	S	S	S	D
Ensure that all contracts comply with Port Authority's PTASP requirements, and all federal, state and local fire/safety regulations	S	P	S	S	S	S	S	S	D
Develop and maintain a list of hazardous materials and equipment	S	P	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: FINANCE DIVISION	System Safety Unit	Finance Division	Bus Operations	Rail Service Delivery	Facilities, Rail, and Rail Car Maintenance	Technical Support and Capital Programs	Human Resources Division	Service Planning and Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Identify, report, and mitigate all hazards. Includes operational hazards, vehicle hazards, and the use of Engineering or other departments for resolution	S	P	S	S	S	S	S	NR	D
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	NR	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR	AR
Specification and quality assurance of parts and materials	S	P	S	S	S	S	S	S	AR

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment

Table 11 - Human Resources Division Safety Task Matrix

<p>SAFETY RELATED TASKS OF: HUMAN RESOURCES DIVISION</p>	<p>System Safety Unit</p>	<p>Human Resources Division</p>	<p>Bus Operations</p>	<p>Rail Service Delivery</p>	<p>Facilities, Rail, and Rail Car Maintenance</p>	<p>Technical Support and Capital Programs</p>	<p>Finance Division</p>	<p>Service Planning and Development</p>	<p><i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i></p>
<p>Develop position descriptions that address safety-related restrictions and requirements</p>	S	P	S	S	S	S	S	S	D
<p>Negotiating, interpreting and administering various collective bargaining agreements, and providing direction to line management in all matters concerning labor and employee relations</p>	S	P	S	S	S	S	S	S	D
<p>Oversight of grievance procedures and arbitrations</p>	S	P	S	S	S	S	S	S	D
<p>Ensure PAAC's medical provider adheres to the DOT medical guidelines for safety sensitive positions.</p>	S	P	S	S	S	S	S	S	D
<p>Ensure that successful candidates for positions are capable of safely performing the tasks of these positions on a repetitive basis.</p>	S	P	S	S	S	S	S	S	D

SAFETY RELATED TASKS OF: HUMAN RESOURCES DIVISION	System Safety Unit	Human Resources Division	Bus Operations	Rail Service Delivery	Facilities, Rail, and Rail Car Maintenance	Technical Support and Capital Programs	Finance Division	Service Planning and Development	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Administer the application of Port Authority's employee discipline policy	S	P	S	S	S	S	S	S	D
Provide oversight and follow-up site visits by health professionals (e.g., in connection with Port Authority's drug and alcohol testing program)	S	P	S	S	S	S	S	S	D
Identify, report, and mitigate all hazards. Includes operational hazards, vehicle hazards, and the use of Engineering or other departments for resolution	S	P	S	S	S	S	S	NR	D
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	NR	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR	AR

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment
NR – No Role

Table 12 - Service Planning and Development Safety Task Matrix

SAFETY RELATED TASKS OF: SERVICE PLANNING & DEVELOPMENT	System Safety Unit	Service Planning and Development	Bus Operations	Rail Service Delivery	Facilities, Rail, and Rail Car Maintenance	Technical Support and Capital Programs	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Ensure that service delivery schedules allow sufficient running time for safe operations at speed limits and adequate recovery time for bus/rail operators	S	P	S	S	S	S	S	S	D
Investigate operator complaints of insufficient running time	S	P	P	S	S	S	S	S	AR
Develop work runs and schedule relief in accordance with collective bargaining agreements and regulatory requirements such as hours of service	S	P	S	S	S	S	S	S	D
Develop marketing tools to increase transit safety awareness of riders and others coming in contact with Port Authority	S	S	S	S	S	S	S	S	D
Develop and implement community outreach programs via print and electronic media promoting the safe use of Port Authority services	S	S	S	S	S	S	S	S	AR

SAFETY RELATED TASKS OF: SERVICE PLANNING & DEVELOPMENT	System Safety Unit	Service Planning and Development	Bus Operations	Rail Service Delivery	Facilities, Rail, and Rail Car Maintenance	Technical Support and Capital Programs	Finance Division	Human Resources Division	<i>Frequency D - Day M - Month Q - Quarter Y - Year AR - As Required</i>
Ensure operational safety of stops, shelters, and route design and layover/recovery areas	S	P	S	S	P	S	S	S	D
Identify, report, and mitigate all hazards. Includes operational hazards, vehicle hazards, and the use of Engineering or other departments for resolution	S	P	S	S	S	S	S	NR	D
Takes appropriate actions to resolve identified hazards in a reasonable manner	S	P	S	S	S	S	S	NR	AR
Employee Safety Reporting, incidents, occurrences, near miss events	S	P	S	S	S	S	S	AR	AR

P – Primary Responsibility
S – Support Responsibility
RC – Review and Comment
NR – No Role

2.23 Safety Data Acquisition and Analysis

This function involves acquiring safety-related data from various sources and analyzing, trending, and distributing that data to inform Port Authority management and staff of system operation and performance. In some instances, the acquired data is used to meet external (FTA and PennDOT) reporting requirements. Trend analysis is performed on the acquired data as a means of identifying and mitigating to the lowest reasonable level causes of accidents and occupational injuries. Included in these analyses are right-of-way and roadway conditions, equipment type, procedures, human factors, environmental conditions, and other factors that might contribute to accidental situations.

2.23.1 Data Acquisition

Safety data is collected from numerous sources by the System Safety Unit, sources include but are not limited to:

- Daily Occurrence Reports (DOR)
- Accident/Incident Reports
- Safety Meetings
- Physical Inspections
- Insurance Inspection Reports
- Claims Reports
- Employee Hazard/Safety Event Reports
- Passenger Safety Concerns/Reports
- General Public Concerns/Reports
- Contractor Hazard/Safety Event Reports
- Near Miss Reporting System
- Municipal Official(s) Safety Concerns/Reports
- Transit Police Safety Concerns/Reports
- FTA Bulletins
- Pennsylvania Rail Safety Review Program (PRTSRP)
- APTA/NTSB Reports/Publications
- Homeland Security Alerts
- Accident Statistics
- Employee Occupational Injury Reports

Safety data collection also involves obtaining technical information for use in systems development of program elements. Sources for such technical data include but are not limited to:

- Occupational Safety and Health Administration (OSHA)
- Department of Homeland Security (DHS)
- Environmental Protection Agency (EPA)
- American National Standards Institute (ANSI)

- National Fire Protection Association (NFPA)
- American Society for Testing and Materials (ASTM)
- Pennsylvania Administrative Code
- Material Safety Data Sheets (MSDS)
- American Public Transit Association (APTA)
- Federal Transit Administration (FTA)
- Pennsylvania Rail Transit Safety Review Program (PRTSRP)
- National Transportation Institute (NTI)
- Transportation Security Administration (TSA)

Other technical data sources include building codes and professional society guidelines. Safety data is exchanged between Port Authority and other transit systems. Port Authority’s safety staff takes the lead role in this function.

2.23.2 Data Analysis

The System Safety Unit tracks hazard-related data to identify, monitor, and report trends. Identified trends are further analyzed and/or investigated by the System Safety Unit and/or the appropriate department(s) to determine causal factors. The investigation may include interviews, testing and extensive analysis of related documentation. Identified hazards are tracked, trended and submitted to the affected department(s) for corrective action. The System Safety Unit distributes this data to appropriate Port Authority management and affected departments, at all levels. In addition, this data is reviewed periodically by the OSSRC to assess effectiveness of the process and information provided.

2.23.3 Data Access

To ensure that the System Safety Unit can properly fulfill its responsibility of continuously tracking, trending and communicating passenger and employee injuries, vehicle accident/incidents, and hazard-related data, other Port Authority departments provide the System Safety Unit access to the data it is responsible for documenting and maintaining as indicated in following table.

Table 13 - Data Access

Required Data	Provider
Traffic and passenger accident/incident reports	Bus/Rail Operations
Traffic and passenger accident/incident reports	Rail and Facilities Bus/Rail Operations
Accident records, employee injury forms, and related accident data	Claims Department
Near Miss reports	Employees

Required Data	Provider
Bus operator and maintenance training programs and records	Bus Operations
Rail and Bus accident /incident investigation reports, complaints and hazards	Bus/Rail Operations Rail and Facilities Port Authority Police
Rail operator and maintenance training and re-training programs and records	Rail and Facilities Bus/Rail Operations
Medical Services information	Human Resources Division
Right-of-Way Allocation records	Rail and Facilities
Safety records of individual division employees relative to accidents and rule violations	Rail and Facilities Bus/Rail Operations
Records of inspections, maintenance work, accident-related activities and emergency responses	Rail and Facilities
Modifications to equipment and facilities	Technical Support and Capital Program
System-wide policies and procedures, operating orders and general notices	Chief Operating Officer
Complete and current personnel files	Human Resources Division
Derailment Committee findings and recommendations	Technical Support and Capital Programs
Contractor's safety-related programs and procedures	Technical Support and Capital Programs
List of hazardous materials and equipment	Finance Division

2.24 Rules Compliance/Procedures Review

2.24.1 Operating and Maintenance Rules and Procedures

Operational rules and procedures are contained in the Standard Operating Procedures (SOPs), System Rules, and Operations Manuals. Facilities rules and procedures are contained in the Maintenance Inspection and Testing Procedures (MITP), Facilities and Rail Maintenance Plan and the manufacturers' manual. Maintenance Procedures are also in the System Safety Guidelines. These publications cover all rules and procedures that are necessary to operate a safe and efficient bus and rail system.

2.24.1.1 Rail System Rules

The Port Authority Rail System Rule Book is a written document that contains rules governing the conduct and performance of Port Authority employees. The Rule Book is reviewed at least triennially by the Procedures and Rules Committee who reports any proposed additions or revisions to the Chief Operating Officer for approval. The Chief Operating Officer forwards recommended revisions to the OSSRC for concurrence. Upon approval of the OSSRC, the rules contained therein are added to, modified, or deleted as required by operating conditions and changes in personnel policy. Rail System Rule Books are distributed on an accountable basis.

2.24.1.2 Bus Standard Operating Procedures

Port Authority Bus Standard Operating Procedures (SOPs) are written documents that describe how to perform specific duties or actions and convey information about various elements of the Port Authority system. A committee chaired by the Chief Operating Officer or his/her designee per procedure is to meet not less than tri-annually for the purpose of evaluating all current and proposed SOPs. The Procedures and Rules Committee:

- Reviews and evaluates existing SOPs and make necessary revisions
- Reviews and evaluates draft SOPs and make necessary revisions
- Research and develop SOPs recommended by Chief Operating Officer or designee

Completed SOPs are forwarded by the Procedures and Rules Committee to the Chief Operating Officer and OSSRC for review and final approval.

2.24.1.3 Rail System Standard Operating Procedures

Port Authority Rail Standard Operating Procedures (SOPs) are written documents that describe how to perform specific duties or actions and convey information about various elements of the Port Authority system. A committee, chaired by the Director of Rail Service Delivery, convenes not less than triennially for the purpose of evaluating all current and proposed SOPs. The Procedures and Rules Committee:

- Reviews and evaluates existing SOPs and make necessary revisions
- Reviews and evaluates draft SOPs and make necessary revisions
- Research and develop SOPs recommended by the Chief Operating Officer or designee

Completed SOPs are forwarded by the Procedures and Rules Committee to the Chief Operating Officer and OSSRC for review and final approval. A draft SOP can be originated and submitted for consideration by any Port Authority rail system employee.

Individuals receiving a new or revised SOP are required to sign, date, and return a form indicating receipt.

2.24.1.4 Bulletins, Notices, and Orders

Urgent changes can be made by Department Heads having control over the specific rules or procedures by means of bulletins, notices, or orders. Subsequent to implementation, they must be submitted by the Department Head to the Chief Operating Officer or his/her designee. Whenever updated, Standard Operating Procedures, bulletins, department notices, and memoranda will be reissued. This process is further defined in the Rail and Bus Standard Operating Procedures.

2.24.2 Techniques for Employee Compliance

2.24.2.1 Operations Personnel

Daily inspections (by the dispatcher) of operators are required prior to pull-out. Road Operations Supervisors enforce rules and procedures in the field by observing, correcting, and documenting safety-related behaviors and activities of operators and system elements. Daily and weekly operational checks are made in the field that include but are not limited to:

- Radar speed checks (yard, grade crossings, and system)
- Observation checks for time and load
- General observations of vehicles, signals, and system for deficiencies; and
- Follow up on patron complaints

Periodic spot checks are made as a result of an accident, request, and/or at random. System Safety may conduct random checks that include but are not limited to:

- General vehicle operation
- Attention to duty
- Signal compliance
- Platform and door operation
- Work zone protection

2.24.2.2 Maintenance Personnel

Vehicle Maintenance Supervisors enforce rules and procedures by observing and monitoring employee performance in bus and rail shops and yards. Facilities and Rail Maintenance Supervisors enforce rules and procedures by observing and monitoring employee and contractor performance on the rail system and at worksites. Rules and procedures monitored and observed for compliance include but are not limited to:

- General safety
- Proper use of tools, equipment and machinery
- Proper use of personal protective equipment
- Right-of-way safety
- Fire safety
- Material handling and storage
- Work zone procedures

Preventive maintenance activities are continuously monitored by maintenance managers and supervisors. Inspection tasks are periodically updated to reflect fleet needs and enhance operational efficiency and safety.

2.24.3 Techniques for Supervisory Compliance

2.24.3.1 Operations Supervisors

It is the responsibility of the Assistant to Directors of Service Delivery and the Manager of Rail Service Delivery to periodically monitor operator procedures and rules violations, inspection practices, and documentation to verify whether department supervisory personnel are enforcing compliance with the requirements and maintaining proper documentation.

2.24.3.2 Maintenance Supervisors

It is the responsibility of the Managers of Bus Maintenance to periodically monitor bus maintenance personnel rules and procedures violations, and documentation to verify whether department supervisory personnel are enforcing compliance with requirements and maintaining proper documentation.

It is the responsibility of the Director of Rail Service Delivery to periodically monitor facilities and rail maintenance personnel rules and procedures violations, and documentation to verify whether department supervisory personnel are enforcing compliance with requirements and maintaining proper documentation.

2.24.4 Compliance Documentation

2.24.4.1 Observation Results

Road Operations, Vehicle Maintenance Supervision, and Facilities and Rail Supervisors are primarily responsible for documenting procedures and rules violations observed. Violation of rules and procedures are covered and enforceable under the Performance Code. When observed, violation(s) are noted on the Occurrence Report. Records of rules and procedures violations are maintained by Bus Service Delivery, Bus Main Shop, Rail Service Delivery and Rail and Facilities.

2.24.4.2 Hazard Management Process Coordination

The OSSRC reviews revisions to rules and procedures periodically and when an accident or incident indicates a possible rule or procedural contribution. Reviews typically include instructional materials, emergency procedures, rules and operating procedures. The review process involves identifying operational hazards and determining whether rules and procedures adequately control the exposure to a particular hazard. The effect of the rule or procedure on the safety of other operations is also examined. In addition, trend analysis may be performed on rules and procedures operational checks and violations as a source of data in the Hazard Management Process, and also to determine revisions needed to training and other safety-related programs.

2.25 Facilities and Equipment Safety Inspections

2.25.1 Facilities and Equipment Subject to Inspection

An essential element of the Port Authority SMS Program is regular inspection of all rail and bus system facilities and equipment that can affect safe operation.

Table 14 - Facility Inspections

Facility	Typical Items Inspected/Tested
South Hills Village Rail Vehicle Maintenance Building	Offices and material storage area, communication systems, compressed air and lubrication systems, power distribution systems, heating and cooling systems, floors, walls, doors, stairways, signs, overhead doors, rail car hoists and cranes, pits, power systems, car wash units, eye wash stations, fire extinguishers and alarms, sprinkler systems, hazardous material storage, and cutting/welding equipment.
South Hills Rail Transportation Building (Offices, Instruction, RTO, and BTO)	Fire extinguishers and alarms, sprinkler systems, housekeeping, electrical systems, communication systems, heating and cooling systems, first aid supplies, entrances and exits, stairways, and lighting
South Hills Rail Vehicle Storage Yard	Fire system, lights, wooden walkways, fences and gates, and electrical system
Bus Garages (Ross, Collier, West Mifflin, and East Liberty)	Fuel islands, yards, transportation offices, sprinkler systems, fire extinguishers and alarms, communication systems, vehicle washing equipment, fences and gates, cranes, vehicle lifts, lubrication systems, power distribution systems, trash collection systems, compressed air systems, lights, heating and air conditioning systems, water and sewer systems, pollution control systems, eyewash stations, walls, roof, entrances/exits and emergency exit doors, signs, stairways, overhead doors, and security systems
Manchester Bus Overhaul Shop	Offices and parts storerooms, communication systems, heating and cooling systems, high pressure boiler room, machine shop, compressed air and lubrication system, hoists, cranes, vehicle lifts, eye wash units, fire suppression equipment, hazardous material storage, and cutting/welding equipment, floors, walls, doors, stairways, signs, overhead doors
Manchester Office Complex	Fire safety equipment, communication system, housekeeping, electrical systems, heating and cooling systems, first aid supplies, entrances/exits and emergency exits, panic hardware, stairways, fences, and lighting

Facility	Typical Items Inspected/Tested
Busways and Busway Stations <ul style="list-style-type: none"> • South Busway • East Busway • West Busway 	Signaling, pavement markings, shelters, crosswalks, lighting, signs, trash receptacles, and benches
Bus Layovers	Pavement and pavement markings, signs, operator washroom and lighting
Rail Stations and Stops	Lights, railings and security barriers, trash cans and signs
Subway and Subway Stations	Fire suppression system, ventilation systems, fire extinguishers, area lighting and exit signage, blue lights, worker safety strobe lights, general passageway items, elevators, chemical sensors and escalators
South Hills Junction Facilities Maintenance Buildings (4)	Offices and material storage areas compressed air and lubrication systems, power distribution systems, heating and cooling systems, floors, walls, doors, stairways, signs, overhead doors, car hoists and cranes, pits, power systems, car wash units, eye wash units, fire suppression equipment, hazardous material storage and cutting/welding equipment.
Park-N-Ride Lots	Marked pavement, lighting, informational signage, and fencing
Mount Lebanon, Mount Washington, Berry Street, Wabash & Northshore Connector Tunnels	Fire suppression systems, ventilation systems, fire extinguishers, sump pumps, area lighting and exit signage, blue lights, and general passage items. In addition, Port Authority's Tunnel Inspection Program establishes structural inspections to be conducted of each tunnel either by Port Authority Engineering or consultants every 48 months
Monongahela Incline	Wheel assemblies, brakes, shafts, motors and fans, trackway, pulley assemblies, safety ropes, fire extinguishers, cars and stations

Table 15 - Equipment Inspections

Equipment	Typical Items Inspected/Tested
Signal System	Signals, switches, crossovers, automatic trip stops, electric switch machines, grade crossing warning systems, and snow switch melters

Equipment	Typical Items Inspected/Tested
Traction Power System	Substation, transformers, breakers, overhead contact wire, support poles, and mast arms,
Track	Rail, rail joints, ballast, ties, special work, track profile, rail fixation, sewer drains, crossings and stops, rail surface defects, hillside/roadbed, and tree/vegetation
Bridges	Port Authority-owned bridges are inspected by a consultant on a two-year cycle using PennDOT guidelines.
Rail Vehicles	Interior and exterior equipment, operator cab and controls, passenger doors, communication systems, friction and disc braking, HVAC, lighting, propulsion system, roof equipment, underfloor equipment, car body, and couplers
Buses	Tires and wheels, directional signals, lights, wipers, glazing, service and parking brakes, lifts, steering system, handrails and stanchions, doors and interlocks, warning devices, horn, suspension system, emergency exits, and step wells and flooring
Non-Revenue Service Vehicles	Cars and light trucks, medium trucks, heavy trucks, emergency generators, forklifts, tow tractors, riding floor sweepers and scrubbers, manlifts, and hi-rail vehicles

2.25.2 Inspection Techniques

Facilities and equipment inspections are practiced extensively to avoid in-service failures and subsequent in-service delays. Inspections are documented on Visual/Functional Checklists that specifies item/function inspected, location, date, reference source, inspection frequency, work order number, crew/individual performing inspection, and inspector's remarks/comments.

Critical items/conditions disclosed during inspection are repaired immediately. Non-critical items/conditions are cycled through work order procedure. Inspection notes recorded on Visual/Functional Checklists are given to Preventive Maintenance

Administrator for review and filing. The Preventive Maintenance Administration issues Visual/Functional Checklists containing written defects to crew for immediate rectification of problem. When reports of defects or problems are reported from other sources, they are responded to and handled in this manner also.

Safety Officers supplement departmental facilities inspections with formal evaluations of facility equipment as well as preparing, posting and keeping current site maps which show the location of equipment, entrances, exits, etc.

2.25.3 Inspection Schedules and Procedures

Facilities Maintenance personnel conducts equipment inspections on a periodic basis according to preventive maintenance schedules (e.g., HVAC, elevators). Inspections are performed utilizing established Port Authority Standard Operating Procedures and Checklists that include:

- Automatic Trip Stops Visual/Functional Inspection
- Substation Battery Maintenance Procedure
- Catenary Visual/Functional Inspections
- Grade Crossing Warning System Inspection
- Hi-Rail Conversion Unit Maintenance & Inspection
- Substation Control Visual/Functional Inspection
- Substation FBK-H Feeder Breaker Maintenance Inspection
- Substation Good Housekeeping Procedure
- Signal Indicator Visual/Functional Inspection
- Rail Switch Visual/Functional Inspection
- Switch Machine – Electric Visual/Functional Inspection

The frequency of equipment inspections depends upon the level of hazard associated with operation, industry standards, and contractor supplier recommendations. In addition, facilities and equipment are also inspected by departments and/or Safety Officers as a result of accident reports. Signal defects reported by rail operators are checked and repaired promptly.

The Facilities Department has a number of audit checks in place to ensure that inspections are being properly conducted and completed. These audit checks include:

- Performance indicators track the number of MITPs completed against the number scheduled. The work order system tracks Way, Non-Revenue, Power and Signals. These performance indicators are reviewed monthly by the Director of Rail Service Delivery. Facilities Managers and Supervisors are held accountable for performances.
- Specific equipment is thoroughly checked through the Preventive Maintenance Program procedures.

2.25.4 Inspection Documentation

Most inspections are documented on preprinted checklists, filled out at time of inspection to assure a consistent level of monitoring and general maintenance.

2.25.4.1 Results

The checklists and written reports are issued following the inspections and all action items are put into the work order system.

2.25.4.2 Coordination with Hazard Management Process

Safety critical equipment that does not meet established requirements is removed from service and/or tagged or locked-out. Vehicles or equipment that is involved in an accident are inspected by qualified personnel prior to being placed back into service.

Identified hazardous conditions disclosed in the inspection of facilities and equipment is formally submitted to the Division Director for review and corrective action. Division Directors are responsible for formally notifying System Safety upon disclosure of a hazardous situation/condition. Unresolved hazardous conditions may be submitted to the OSSRC for review, analysis, and resolution.

2.26 Maintenance Audits/Inspections Program

Table 16 - Affected Facilities and Equipment

Facility/Equipment	Programs
Rail Vehicles	Preventive (scheduled) maintenance Corrective (unscheduled) maintenance Routine cleaning and servicing Major campaigns to correct component failure Mid-life overhaul
Wayside Signals	Grade crossings Rail switches Automatic trip stops (ATS) Snow melters Vital relays
Traction Power	Inspection Preventive Maintenance Corrective Maintenance
Track	Track walker inspections Contract rail testing

Facility/Equipment	Programs
Buses	Preventive maintenance Corrective maintenance Diagnostic Routine cleaning and servicing Wheelchair lifts

2.26.1 Maintenance Cycles

Port Authority signal maintenance is guided by Association of American Railroad Standards (AAR). In addition to following Port Authority Standard Operating Procedures, the Facilities and Rail Maintenance Department uses the widely accepted rail industry standards of the American Railway Engineers and Maintenance-of-Way Association (AREMA) to specify track materials and to establish tolerances for track construction. The Port Authority is required to adhere to PennDOT State Rail Standards.

With the opening of the Stage II Overbrook Line, the Port Authority of Allegheny County reviewed the "Track Safety Standards" dated 1997 for applicability to both the new Stage II track and existing track work on Stage I and determined to adopt the approved American Public Transportation Association (APTA) "Standard for Inspection and Maintenance of Fixed Structure – Transit Standards Executive Committee. These standards cover procedures for the periodic inspection and maintenance of track on transit properties.

The standard was adopted with certain exceptions and changes due to operating or design conditions, which are unique to the Authority's light rail system. Port Authority Track Standards Committee has completed revisions of Port Authority Track Standards dated August 2010.

Table 17 - Periodic Facility/Equipment Inspection

Facility/Equipment	Cycles
Rail Vehicles	Daily Inspections Bi-Weekly Inspections 5,000-Mile Inspection 10, 000-Mile Inspection 30,000-Mile Inspection 60,000-Mile Inspection 120,000-Mile Inspection State Inspections (Semi-annually) Annual Certification and Preventive Maintenance Campaigns Wheel Truing as needed based on inspections.

Facility/Equipment	Cycles
Wayside Signals	<p>Grade crossings (Bi-weekly) Rail switches (Monthly) Automatic trip switches (Quarterly) Snow melters (Annually) Vital relays (Currently revamping the 2- and 4-year testing procedures for AC and DC relays.)</p>
Traction Power Substations	<p>Vital relays are on a two-inspection cycle depending upon the relay as outlined by Union Switch and Signal Company recommendations.</p> <p>Annual Testing/Inspection</p> <ul style="list-style-type: none"> • Batteries and DC feeder breakers • Ventilation system • AC breakers and AC switchgear • Traction power rectifiers, and traction power breakers <p>All Auxiliary Equipment heating, lighting, ventilation, inverters, manual roll-up doors are either covered under Substation Good Housekeeping and Inspection PM or as corrective maintenance only</p>
Track	<p>Track inspectors inspect the system on a weekly basis.</p> <p>Track geometry is measured annually with a tamping machine equipped with a computer-generated track measuring system or similar equipment attached to an LRV. The track measuring system has preset track parameters. Parameters for measuring track are set by Port Authority and APTA track standards.</p>
Buses	<p>Fluids, including, but not limited to, oil and antifreeze are tested regularly as part of the general maintenance warranty, and contract compliance procedures.</p> <p>A preventive maintenance plan is in place for all ADA-mandated accessibility features.</p> <p>Maintenance checks for wheelchair lifts on bus fleet are performed nightly. Lifts are routinely scheduled for maintenance at each bus location on the manufacturer's recommended intervals</p>

2.26.2 Program Documentation

Railcar maintenance personnel maintain accurate mileage records on each vehicle, dates and work orders (inspections, repairs, and overhauls). The database is used to perform failure analyses and determine remedial actions. Records of each rail vehicle are sufficiently detailed to determine quickly the life of sub-assemblies, and to enable trend analysis. Port Authority management also reviews equipment trends for planning purposes.

Wayside signal equipment, track, and substation inspections are documented on Visual/Functional Checklists. Critical items/conditions are cycled through work order procedure. Inspection notes recorded on Visual/Functional Checklists are reviewed and filed.

When preset parameters are violated during track measuring system process, a defect is recorded, and its location and type of defect is printed out for repair.

The scope of the bus maintenance plan is to provide safe, clean, reliable transit service to Authority's customers through the adoption and implementation of sound maintenance practices as prescribed by law and based on Authority's experience and expertise. The bus maintenance plan is implemented daily through the conduct of normal business operations. All bus maintenance checklists include recommended manufacture, supplier, or builder procedures, programs, and guidelines. The current systems provide notification to management if scheduled intervals are missed, and corrective action is taken.

2.26.3 Coordination with Hazard Management Process

Safety critical equipment that does not meet established requirements is removed from service and/or tagged or locked-out. Vehicles or equipment that is involved in an accident are inspected by qualified personnel prior to being placed back into service.

Identified hazardous conditions disclosed in the inspection of facilities and equipment is formally submitted to the Division Director for review and corrective action. Unresolved unacceptable hazardous conditions will be submitted to the OSSRC for review, analysis, and resolution or forwarding to the CEO for review and resolution.

It is the responsibility of the Bus, Railcar Maintenance and System Safety Departments to audit vehicle inspection practices, procedures and documentation to verify whether rail vehicle maintenance department is in compliance with the PTASP. This activity is also supported by the PRTSRP. Deficiencies found as a result of system safety audits are integrated into appropriate database to track to resolution.

It is the responsibility of the Facilities and Rail Maintenance and System Safety Departments to audit facilities and rail maintenance inspection practices, procedures and documentation to verify whether rail maintenance department is in compliance with the PTASP. Deficiencies found as a result of system safety audits are integrated into appropriate database to track to resolution.

2.27 Integration with Public Safety and Emergency Management

Port Authority has developed an approved, coordinated schedule for all emergency management program activities which include meetings with external agencies; emergency planning responsibilities and requirements; processes used to evaluate emergency preparedness, such as annual emergency field exercises; after action reports and implementation of findings; revision and distribution of emergency response procedures; familiarization training for public safety organizations; and employee training. This section also describes which Port Authority department is responsible for each of the emergency management elements.

2.27.1 Allegheny County Emergency Management Plan

As a key participant in the Allegheny County Emergency Management Plan, the Port Authority is responsible for coordination and provision of transportation resources to federal, state, and local governments, volunteer organizations, and the general public response to a natural disaster or other event which necessitates immediate evacuation including terrorist acts. In such circumstances, the Port Authority is designated by Allegheny County's emergency operations center as an emergency support function for transportation. Emergency response planning, coordination, and training procedures are also contained in the Rail Standard Operating Procedures for Rail Operations, Bus Standard Operating Procedures, Emergency Management Plan and Port Authority's Security and Emergency Preparedness Plan.

The Port Authority's Security and Emergency Preparedness Plan (SEPP) is incorporated into this PTASP by reference. The SEPP is overseen, updated, and managed by the PAAC Chief of Police. The SEPP contains Safety Sensitive Information (SSI) and available for review by authorized individuals at the Port Authority Transit Police Department, Senior Management and critical Operations, Legal and Technical Support personnel.

2.27.2 Meetings with External Agencies

Staff members of Port Authority's System Safety and Police and Security Services are members of the Allegheny County Emergency Management, Pennsylvania Region Thirteen Task Force, Joint Terrorism Task Force (JTTF), National Safety Council, American Society of Safety Professionals and American Industrial Hygiene Association.

Port Authority staff attends scheduled meetings of the Allegheny County Emergency Management and Region Thirteen Task Force (Thirteen County Task Force) to coordinate and plan emergency response and proactive processes. All aspect of emergency response is represented at these meetings including local police, state police, FBI, postal inspectors, Attorney General's office, fire departments, emergency medical service, county emergency management and public utilities.

2.27.3 Port Authority Emergency Management Plan

The Port Authority Emergency Management Plan (the "Plan") has been developed to protect Port Authority employees, patrons, assets and our service area in the event of fire, explosion or other incidents of catastrophic proportions including industrial accidents, natural disasters or terrorist attacks. The Plan identifies the Authority's internal emergency response and insures a direct link with local, state and federal emergency management groups. The Plan also defines for the Authority specific actions for command, control and communications for dealing with internal or community disasters.

The primary goal of the Plan is to provide a comprehensive all hazards approach for managing emergencies and events, including prevention/mitigation preparedness, response and recovery. The Plan covers emergencies due to criminal activity, terrorism, fire, natural disasters, hazardous materials spill, medical emergency, severe weather, utility outage or other emergency situations occurring on or near any Port Authority facility or right-of-way. The Plan is applicable to all Port Authority personnel. It also may be utilized by outside agencies whose duties include the preservation or protection of life and property during a local or regional emergency.

The appropriate emergency plan is implemented immediately by Port Authority Police, Bus Traffic Operations (BTO) and/or Rail Traffic Operations (RTO) upon confirmation that an emergency, as defined within Plan exists. The Emergency Management Plan supersedes all other plans, rules and procedures which would be in effect during normal operations.

If an emergency condition exists which could affect any portion of Port Authority or its service area, the activities as outlined in the Emergency Management Plan are initiated. At such time, all activities and responsibilities for Port Authority operations will be under the direct control of the Chief Executive Officer or his/her designee, through the Emergency Operations Center. The Port Authority follows National Incident Management System / Incident Command System guidelines for emergency response.

Exercises and drills are generally conducted following Homeland Security Exercise and Evaluation Program guiding principles.

The Emergency Management Plan is a living document that serves as the basis for Port Authority responses to the most difficult situations.

2.27.4 Emergency Management Evaluation

The Transit Police and Security Services Department personnel participate in annual drills and fire/life safety training with various emergency responders and Port Authority Departments including System Safety. Past drills have included:

- Johnstown Incline rescue drill, October 2019
- Monongahela Incline Tabletop/Functional exercise, May 2019
- Major League Baseball, April 2019, Active Shooter scenarios
- Major League Baseball, June 2019, Mailroom Threat and Bomb Scenario
- Full Scale Tunnel Rescue/Mass casualty, June 2018, PBF, EMS, PAAC
- Emergency Cart Familiarization, April 2018, Pittsburgh Bureau of Fire & PAAC Police
- Major League Baseball, February 2018, Virtual Tabletop Exercise, MLB Drone
- CBD/NSC Safety, October 2017, Pittsburgh Bureau of Fire Subway Familiarization (Classroom and Field Training).
- Tabletop Exercise, Full Scale Active Shooter, 2nd Qtr. 2017.
- Mini Drills, SWAT Hostage Rescue with Tactical Team at SHV, Aug/Sept. 2016.
- Tabletop, Intelligence Sharing (Internal & External Agencies), 4th Qtr. 2016.
- Tabletop Exercise, "Any Given Sunday" NFL – LEA/Private Sector Tabletop Exercise, April 2015.
- Track/LRV Safety, Fall 2015, Pittsburgh Bureau of Fire Subway Ventilation Fan Simulation Training
- Tabletop Exercise, Cam Tran Tabletop Exercise, April 2015.
- Full/scale exercise, TSA I-STEP Program Operational Exercise, March 2014.
- Tabletop Exercise, PA Homeland Security, Pittsburgh Marathon, Prevention and Detection, March 2014.
- Mini Drills, Port Authority of Allegheny Police Active Shooter Training/Drills, May/July 2014.
- Blast Analysis Exercise, FBI, County, & Port Authority of Allegheny Police, Post Blast Analysis Training/Exercise, August 2014.
- Advanced SWAT, ESU Training/Drills, October 2014.
- Track/LRV Safety, Emergency Responder Training/Pittsburgh Bureau of Fire Transit Emergency Plan Review, PBF, Port Authority of Allegheny Police, Road Operations, EMS (500 + attended), January/February 2014.
- Training/Drills – Tubular Bus Assaults Which Entailed Hostage Rescue and Site Security of a Hijacked Bus with Hostages. (ESU-2013)
- Training/Drills – Tubular Light Rail Vehicle Assaults. Operation took place at the North Shore Subway Station and entailed an ACTIVE SHOOTER who rushed a rail vehicle and held hostage the occupants during a rush hour. (ESU-2013)

- Training/Drills – Active Shooter Training for Port Authority Police. This entailed training the entire department on the theory/movements of neutralizing the threat of an active shooter. (PAAC Police–2013)
- Training/Drills – Basic Room Entry and Movements Associated with Basic and Advanced SWAT. Four officers also attended the Advanced Hostage Rescue Class taught by ex-Special Operations Personnel at FBI Academy, VA. (Select ESU Team-2013)
- North Shore Rail Extension, Emergency Responder Familiarization and Fire/Life Safety. All agencies including (Pittsburgh Fire, EMS and Police, EOD, Swat, PAAC ESU, TSA, County and Regional Emergency Management. January through March 2012.
- North Shore, Fire Department mini drills that included; ventilation/smoke simulations with command control of emergency fan systems in tunnels and stations; water flow/fire simulations in tunnels and stations; and simulated LRV fires in tunnels. January through March 2012.
- North Shore Pittsburgh EOD/PAAC ESU explosive training/drill simulations in stations. February 2012.
- Harmar Garage site, Active Shooter Training and Drills for all PAAC Police and other outside departments. October through December 2012.
- Bus Breaching/Assault Training/Drills at Harmar Garage. PAAC ESU and FBI Swat. April 2012.
- Co-hosted with FBI – Bus assault tactics at local gun club. Open to all regional Swat Teams. May 2012.
- North Shore Rail Extension, Emergency Responder Fire/Life Safety and Familiarization Training in preparation of pre-revenue drills and full revenue service. Training attendees; (Pittsburgh Fire, EMS and Police, Special units of Police, EOD, SWAT, PAAC ESU, TSA, County and Region Emergency Management, Safety and Road Supervision) July through December 2011
- Mini-drills, Pittsburgh EOD and PAAC ESU, Response to IED's North Shore Connector Stations, July through December 2011
- Tabletop, Hazmat incident in the CBD Steel Plaza testing SafeSite and internal SOP's, PAAC Police & Dispatch, Safety, Operations, Environmental Officer, and OCC. September 2011
- Full-Scale/April 2010/NETL (national Energy Technology LAG) Active Shooter Multi-Agency
- Full-Scale/August 2010/ESU/SWAT CBD Response Multi-Agency
- Tabletop-Mini Drills/September 2010/Tactical Operation on Rail Transport, Pittsburgh, Multi-Agency
- Full-Scale/G-20/Multi-Agency Event/September 2009
- Tabletop/G-20 Preparedness/Multi-Agency/September 2009
- Tabletop/Underwater Terrorism/Multi-Agency/August 2009
- Multi-Agency, Federal, State, Local Emergency Management (IED on Bus) - 2008
- Steel Shield/Port of Pittsburgh – 2007

- Tabletop/Chemical Release Subway – 2007
- Functional Exercise/Chemical Release in Subway – 2007
- PNC Park All Star Game Drills - 2006
- PennDOT Fort Pitt Tunnel Rescue
- PNC Park, Multi-agency Response Drill, WMD, May 2005
- Federal, State and Local, Multi-agency Response to Berry Street Tunnel, West Busway, WMD Drill, October 2003
- Federal, State and Local, Multi-agency Response to CBD, Steel Plaza, WMD Drill, September 2000
- Annual mini drills with Port Authority, fire and EMS personnel, on-going

2.27.5 Implementation of Findings

The OSSRC meets monthly and supports System Safety and Transit Police and Security Services Department in reviewing drill and exercise scenarios and after-action reports. Following review, the OSSRC, assists with appropriate corrective actions as necessary. Discrepancies found as a result of training or drills are corrected in the procedures by System Safety or Police and Security Services Departments.

2.27.6 Revisions to Emergency Management Plan

The Emergency Management Plan will be reviewed and updated, as needed, or on an annual basis. Users of the Plan are encouraged to submit recommendations for its improvement. Comments are required to be specific and accompanied by the reasons for the recommendations. Revision proposals are directed to the Chief Safety Officer, who then reviews with the Port Authority Chief of Police for concurrence. Distribution of the Port Authority Emergency Management Plan is controlled by the Port Authority Chief Safety Officer.

2.27.7 Familiarization Training

Port Authority's System Safety Department assisted the City of Pittsburgh Fire Department in developing a Standard Operating Procedure for the central business district, Panhandle Bridge, and Mt. Washington Tunnel. The Pittsburgh Bureau of Fire Emergency Operations Plan for the Light Rail Transit System was revised in 2011 and final document was published in 2012, to include the North Shore Connector extension. These emergency standard operating procedures have been distributed to the appropriate management personnel by the Chief Safety Officer.

Periodic familiarization and refresher training have been planned and coordinated between Port Authority's Safety Officers and the local fire and police departments. This training included disaster activities, inspections of tunnels, LRT emergency equipment, hot sticks, radios and emergency carts. Training sessions in emergency response to LRVs and motor coaches are conducted throughout the year.

The Port Authority's "Mass Transit Emergency Response Guide" was implemented in 2001 and is periodically revised to reflect changes in the fleet. All City of Pittsburgh Fire Fighters and an ongoing list of municipal departments are attending this training. Meetings/drills have been coordinated and implemented with the following agencies on various fire/life issues:

- AC Silver Team #430
- Allegheny County Fire Marshall's Office
- Allegheny County Fire Bureau
- Aleppo Township Volunteer Fire Company
- Broughton Volunteer Fire Department
- Baldwin #1 Volunteer Fire Department
- Baldwin EMS
- Becks Run Volunteer Fire Department
- Bellevue Fire Company
- Ben Avon Volunteer Fire Company
- Berkeley Hills Fire Company
- Blaine Hill Volunteer Fire Department
- Bower Hill Volunteer Fire Department
- Bradford Woods Volunteer Fire Company
- Brentwood Volunteer Fire Department
- Bridgeville Volunteer Fire Department
- Cecil #3 Volunteer Fire Department
- Central #140-7
- Cecil Township Volunteer Fire Department
- Cherry City Volunteer Fire Department
- Citizens Hose Fire/EMS
- City of Pittsburgh EMS
- City of Pittsburgh Fire Department
- Clairton Volunteer Fire Department
- Clairton Volunteer Fire Department and EMS
- Cochran Hose Company
- Crafton Volunteer Fire Department
- Crestas Volunteer Fire Company
- Dormont Fire and Police Departments
- Dravosburg #1 Volunteer Fire Company
- Duquesne Volunteer Fire Department
- East Carnegie Volunteer Fire Department
- East Pittsburgh Fire Department
- Elizabeth Volunteer Fire Department
- Elrama Volunteer Fire Department
- Etna Volunteer Fire Department
- Eureka Fire-Rescue
- Evergreen Fire Company

- Fairview Volunteer Fire Department
- Fawn Township Volunteer Fire Department #2
- Federal, State and Local, Multi Agency Response to Berry Street Tunnel, West Busway, Weapons of Mass Destruction Drill (October, 2003).
- Federal, State and Local, multi-agency response to CBD, Steel Plaza Weapons of Mass Destruction Drill. (Sept-2000)
- Forest Hills Volunteer Fire Department
- Franklin Park Volunteer Fire Company
- Frazer Township #1
- Gallatin Sunnyside Volunteer Fire Company
- Gill Hall Volunteer Fire Company
- Glassport #1
- Glassport #2
- Greentree Volunteer Fire Department
- Hampton Volunteer Fire Department
- Harmar Township Volunteer Fire Department
- Harrison Hills Volunteer Fire Company
- Highland Volunteer Fire Department
- Hilltop Hose Company #3
- Homestead Volunteer Fire Department
- Homeville #1
- Imperial Volunteer Fire Department
- Igomar Volunteer Fire Department
- Ingram Volunteer Fire Department
- Jefferson Hills – 885 Volunteer Fire Department
- Jefferson Hills – Floreffe Volunteer Fire Department
- Jefferson Hills – Gill Hall Volunteer Fire Department
- Jefferson Hills – Large Volunteer Fire Department
- Jefferson Hills EMS
- Keating Volunteer Fire Department
- Laurel Gardens Volunteer Fire Department
- Leetsdale Volunteer Fire Department
- Liberty Boro #183
- Library Volunteer Fire Department
- Lincoln Boro #184
- Logan Ferry Heights Volunteer Fire Department
- Lower Burrell Volunteer Fire Department
- Marshall Township Volunteer Fire Department
- McKees Rocks Volunteer Fire Department
- Moon Run Volunteer Fire Department
- Moon Township Fire Department
- Mount Lebanon Fire Department
- Mt. Lebanon Fire and Police Departments
- Mt. Troy Volunteer Fire Company

- Munhall Area Pre-Hospital Services
- Munhall Station 200
- Munhall Station 201
- Munhall Station 202
- Munhall Station 203
- Munhall Station 204
- Neville Island Volunteer Fire Department
- New Kensington Engine Company #5
- North Versailles Volunteer Fire Department
- Option Independent Fire Company (Baldwin)
- Peebles Volunteer Fire Department
- Penn Hills #5 Fire Department
- PennDOT Fort Pitt Tunnel Rescue
- Pennsylvania State Fire/Rescue Instructors
- Perrysville Volunteer Fire Company
- Pioneer Hose Company
- Pitcairn Volunteer Fire Department
- Pleasant Hills Volunteer Fire Department
- PNC Park, Multi-agency Response Drill, WMD, May 7, 2005
- Prism EMS
- Quail Volunteer Fire Department
- Rosedale Volunteer Fire Department
- Ross/West View EMSA
- South Baldwin Volunteer Fire Company
- South Fayette Volunteer Fire Department
- Spring Garden Volunteer Fire Company
- Sturgeon Volunteer Fire Department
- Summit Hose Company
- Versailles Volunteer Fire Company
- West Elizabeth Volunteer Fire Department
- West Homestead Volunteer Fire Department
- West Mifflin – Duquesne Annex Volunteer Fire Department
- West Mifflin #3
- West Mifflin #4– Skyview Volunteer Fire Department
- Wexford Volunteer Fire Company
- Whitaker Volunteer Fire Company
- White Oak #1
- Whitehall Fire Company
- Wilkins Township Volunteer Fire Company

2.27.8 Employee Training

All Port Authority operations and maintenance personnel undergo emergency response training to ensure they have a thorough understanding of their role and responsibility

during an emergency. At a minimum, training is provided on Port Authority SOP's and emergency plans that the employee may be required to implement, and on any specialized equipment by the Instruction Department.

2.28 Responsibility for Emergency Management

2.28.1 Emergency Operations Center (EOC)

The Port Authority's Emergency Operations Center (EOC) is utilized to coordinate, manage and provide mitigation planning for emergencies. The Port Authority's Emergency Operations Center (EOC) is located on the second floor of Pitt Tower, along the Martin Luther King, Jr. East Busway. If needed, alternate EOCs are established. Potential sites include South Hills Junction, Manchester Road Operation Center, the Rail Center and the Allegheny County Emergency Center (already fully functional). The EOC will be equipped with display boards, computers and/or laptops (with internet connection), television with satellite dish, telephone lines, portable radios and other equipment as directed by the Emergency Operations Center Director.

2.28.1.1 Activation Criteria

The EOC may be activated for any of the following reasons:

- Resources beyond Port Authority's capability are required to respond to an emergency.
- An emergency of long duration.
- Major policy decisions will be needed.
- Local or state emergency is declared.
- Activation of the EOC will be advantageous to the management of the emergency.

2.28.1.2 Activation of the EOC

The EOC may be activated by the Chief Executive Officer, Chief Legal Officer, Chief Safety Officer or Chief Operating Officer.

Immediately following the activation of the EOC, the following people are to be notified of the activation and asked to report, or send a representative, to the EOC:

- Chief Executive Officer
- Chief Legal Officer
- Chief Operating Officer
- Chief Development Officer
- Chief Information Technology Officer
- Chief of Police and Security Services

- Chief Safety Officer
- Chief Communications Officer
- Chief Human Resources Officer
- Chief Financial Officer

After activation of the EOC, the EOC staff notifies and coordinates with the following agencies, as applicable:

- Allegheny County Division of Emergency Services (Region 13)
- Federal Agencies as required

2.28.1.3 Functions of the Emergency Operations Center

- Implement incident plans and document all Emergency Operations Center actions.
- Request assistance from outside emergency response agencies for fire, medical, police and evacuation emergencies.
- Dispatch supervisors to the scene or other designated locations.
- Dispatch Port Authority Police to assist at the incident scene.
- Communicate with BTO and RTO and control all bus and LRV movements, as required; as appropriate, establish correct ventilation, activate/deactivate overhead power (rail).
- Contact maintenance supervisors for assistance, as required.
- Coordinate requirements for supplemental service, both bus and rail.
- Perform management notifications, respond to incoming telephone calls and perform other duties as assigned.
- Provide timely media and patron information.

2.28.1.4 Levels of Emergency

The Port authority recognizes three levels of emergency, which will be determined by the severity of the emergency. The purpose of this rating system is to provide a universal standard for determining the magnitude and scope of emergency response required by the event. It should be noted that the EOC only activates during Level III emergencies. Enhancements in communications systems (smart phones, radios etc.) as well as the addition of the Alert System have reduced the need for the EOC to activate for lesser emergencies.

Table 18 - Levels of Emergency

Levels of Emergency	
Level I – Minor Emergency	An incident where Port Authority property or equipment is damaged, employees or customers are injured and/or service is disrupted. Emergency services may be required, but in general, Port Authority operating department resources are adequate to conclude the incident.
Level II – Major Emergency	An emergency requiring the close coordination of several Port Authority departments (Operations, System Safety, Police and Security Services, Communications and others) and mutual aid from community Police, Fire or Medical Services. Examples may include a large fire, severe injury accident, and significant criminal event, emergency in the rights-of-way (including tunnels), area-wide power outage, civil disturbance, major hazardous material spill or severe weather. This kind of event has a greater impact upon portions of Port Authority operations and may halt some of those operations temporarily. Port Authority operating department resources may be adequate to conclude the incident.
Level III – Catastrophic Emergency	A regional disaster or incident requiring a large amount of outside resources to assist Port Authority or in which Port Authority is required to assist. Response to this type of emergency requires centralized emergency management of all Port Authority functions, as well as decentralized on-site management and response. When a Level III disaster is declared, the EOC will be established to direct Port Authority resources and to coordinate with emergency response agencies.

2.28.1.5 EOC Management

The EOC Management Section is responsible for overall management and administration of the emergency. The EOC staff also includes certain support staff functions required to support the EOC function.

EOC Director - The EOC Director is in charge of the overall management of the incident in the EOC by making executive and policy decisions based on the information received. The following officers will serve as the EOC Director based on their presence and availability:

1. Chief Executive Officer
2. Chief Operating Officer
3. Chief Legal Officer
4. Chief Engineer
5. Chief of Police and Security Services
6. Chief Safety Officer

Operations - The Chief Operating Officer is responsible for the operation, vehicle maintenance and coordination of transportation services (bus and rail). The following functional areas support this section:

- Road Operations and Rail Service Delivery – Supervisors responsible for coordinating the on-site response to incidents.
- Rail and Bus Operations – Provides the response for any vehicle needs, including tow vehicles and provides the necessary vehicle mechanics at the scene.

Chief Legal Officer – Chief Legal Officer will act as an advisor to the Chief Executive Officer in areas of safety and legal issues.

Chief Engineer – The Chief Engineer will provide technical assistance with issues regarding any Port Authority facilities or rights-of-way and will coordinate any contractor assistance, as required. The following functional areas support this section:

- Facilities & Rail Maintenance – Repairs and restores track, signals and overhead and other rail related facilities; and provides heavy rescue equipment and re-railing equipment for rail related incidents.
- Technical Support/Capital Programs – Provide technical assistance with issues regarding any Port Authority Facilities or Rights-of-Way and will coordinate any contractor assistance, as required.

Port Authority Police - Port Authority Police will assume the role of Incident Commander when the incident is a potential or actual crime zone. Police will coordinate crowd control; assist with the evacuation of customers and/or employees, and coordinate traffic control and security within and around the incident site. Police will also coordinate with local, state and federal emergency operations agencies. A representative will be sent to the Allegheny County EOC.

System Safety - System Safety personnel will be responsible to ensure that all Port Authority operations are maintained with the highest degree of safety. System Safety will identify any special needs and provide strategies to safely mitigate the situation.

Communications - Port Authority Chief Communications Officer will act as the authoritative source of information to the public and news media. The Chief Communications Officer will also coordinate the dissemination of information to Port Authority employees and documenting all functions and activities of the EOC. At the conclusion of the incident, the Chief Communications Officer will issue a report outlining all activities and policy decisions.

The Social Media & Communications Representative will assist the Chief Communications Officer in disseminating customer information via customer service clerks and the Authority's web page.

Information Technology – Information Technology staff will be available to coordinate troubleshooting and repair of any communication-related problem (CCTV Surveillance Systems, telephone, computer).

Technical Specialist -Technical Specialists will act as advisor resource persons to the EOC Director. They will provide expert information in the development of an Action Plan. Technical Specialists will be summoned on an as needed basis.

2.29 SMS Documentation and Records

Port Authority's PTASP will be updated as relevant organizational or process changes occur and at a minimum annually as required by 673.11(a)(5). In addition, Port Authority will maintain its PTASP in accordance with the recordkeeping requirements of 673.11(c). Port Authority will also maintain its relevant Safety Management System (SMS) documents and those referenced herein for a minimum of three (3) years after they are created in accordance with 673.31.

The System Safety Department will serve as the official office of record for the PTASP and relevant SMS documentation. This documentation will typically include a back-up electronic copy of the various documents.

SMS documentation will be available for review at the Port Authority System Safety Department, Heinz 57 Center, 345 Sixth Avenue, Pittsburgh, Pennsylvania.

3.0 SAFETY RISK MANAGEMENT

3.1 Hazard Identification and Analysis

Section 3 describes the safety risk management process used by Port Authority to implement its hazard management program, which includes activities for: hazard identification, hazard investigation, safety risk evaluation, and analysis, hazard control and elimination, and reporting and tracking hazards. This section also describes the role of the RTSRP, the state safety oversight agency, in providing ongoing monitoring of the

hazard management process as required by 49 CFR Part 674.29 and specified in the RTSRP Procedures & Standards (June 2019).

As MAP-21 implementation process moves forward, the Port Authority is required to incorporate safety risk management more formally into the Hazard Management Program, with the SMS implementation.

3.2 Federal Requirements

The State Oversight Rule in 49 CFR §674.29 provides RTSRP with the authority to require the Port Authority to document, in its PTASP or supporting procedures, the following:

- The Port Authority's overall approach to implementing an integrated, system-wide hazard resolution process (i.e., not only to address operational hazards, but also hazards from extensions/modifications, operational changes, or other changes within the rail transit environment);
- Sources and mechanisms used by the Port Authority to identify hazards (i.e., customer complaints, employee reports, review of near-miss incidents and control center logs, analysis of maintenance records, accident investigations, audits, inspections, Division Safety Committees, formal hazard analysis, etc.);
- Processes used by the Port Authority to evaluate and prioritize hazards (i.e., formal hazard analysis, informal assessment based on experience and technical recommendations, testing analysis, consultant reviews, manufacturer's recommendations, etc.);
- Identify mechanism used to track, through resolution, the identified hazards.
- Any required investigation reports or other documents to be provided by the Port Authority to RTSRP, as specified in the RTSRP Program Standard, regarding any hazard that triggers the hazard identification/notification threshold; and
- The process used by the Port Authority for reporting ongoing hazard management program activities to RTSRP (i.e., monthly or quarterly logs, monthly or quarterly meetings.)

3.3 RTSRP Requirements

The RTSRP requires that the Port Authority document its hazard management process. The RTSRP recognizes that hazards vary in severity and frequency, and that many will be resolved at the operating, maintenance, or other front-line department level. As such, the transit agency must document at least those hazards which rise beyond the front-line department level and must describe its review and analysis of those below this threshold.

Tracking systems used by the Port Authority to record the hazard management process, including results of these analyses and the status of identified mitigation activities (i.e., information management systems, databases, paper records, committee meeting minutes, etc.) should include steps such as:

- A specific Hazard Management Log which documents ongoing hazards. A suggested format includes, at minimum, such headings as identification number, description, date identified, source, transit mode, location, assessment results, recommendations (correct actions), and status, or combination thereof; and/or
- A committee or group that reviews and addresses hazards when necessary and when hazards are elevated beyond established thresholds.

In the case of hazard investigations, the RTSRP may request that the Port Authority Safety Department conduct an investigation on the RTSRP's behalf, independent of investigatory activities conducted by other RTA departments. The RTSRP will typically request that Port Authority Safety Department perform a hazard investigation and analysis using its hazard management process as found in its RTSRP-approved PTASPBASE.

3.4 Port Authority Hazard Management Process

3.4.1 Overview

Hazard identification and resolution is a core element of the PTASP emphasizing timely correction of unsafe conditions -- ideally, anticipated and reconciled before serious accident, injury, or damage occurs. The methodology outlined for the formal process of hazard identification and resolution is based on the PennDOT Standard which was adapted from U.S. Military Standard 882E.

To ensure that the Port Authority provides safe and reliable transportation services, Port Authority has established a process by which hazards are identified, analyzed for potential impact on the operating system, and resolved in a manner acceptable to Port Authority management and applicable regulatory agencies.

All Port Authority management, staff, contractors, and suppliers are required to implement high standards of safety and system assurance throughout the design, construction, testing, and operational phases of Port Authority's projects. Hazards which cannot be eliminated in the design are to be controlled by safety devices, warning devices, training, and/or written procedures to prevent mishaps.

Every Port Authority employee and contractor is encouraged to report any hazard / unsafe condition to his or her Supervisor or Department Manager. The hazard / unsafe condition should be addressed or mitigated, if within the individual's ability and scope. If a resolution is not achieved at the department level, the issue is brought to the division level. Contractors should notify their respective Port Authority project manager as well as their own Management staff.

Most hazards in the system are identified in the field and reported to the RTO/BTO control centers and entered on daily operations reports bus & rail and operation occurrence reports. These hazards are addressed by the responsible departments or

units through corrective action measures and reporting. Accidents and changes to operating procedures, maintenance procedures, and training programs are reviewed and discussed relative to their impact on safety in the OSSRC and other staff meetings. When hazards are identified during the review of plans and specifications for equipment or facility modifications, the Chief Safety Officer and the Project Manager in charge of the project are notified immediately and the identified hazard and options for resolving them are discussed and implemented. Unresolved issues may be presented to the OSSRC.

3.4.2 Hazard Identification and Reporting Thresholds

Hazard identification and resolution is a safety process managed by Port Authority's Chief Safety Officer with the assistance of the OSSRC. The Chief Safety Officer with the OSSRC will determine, on a case-by-case basis, those hazards for which formal analyses are to be prepared using the hazard reporting table in this section. Division Safety Committees are also responsible to identify and track to resolution hazards identified. In addition, issues identified in the Safety Committee meeting log with an unacceptable rating will be immediately forwarded to the OSSRC and logged in Port Authority's CAP log. Items will be tracked through the OSSRC Committee log and the CAP log until resolved. System Safety's Safety Officers are responsible for the Hazard rating relating to Safety Committee, Internal Audits and/or Safety Inspection, as necessary. All Port Authority staff, and committee meetings are forums for identifying real and potential hazards.

To address hazards resulting from system extensions or modifications, operational and other changes, safety analysis included in design and procurement contracts will provide for:

- Identification of potential hazards
- Assessment of the severity and probability of occurrence of each potential hazard
- Timely awareness of hazards for those who must resolve them
- Tractability and control of hazards through all phases of a project's life cycle

These processes are defined in Port Authority's Technical Support documents that include: PAAC Construction Manual, Design Management Procedures Manual and Quality Assurance/Quality Control Manual.

Hazards at the Port Authority may be identified by any or all of the following methods:

- Formal analyses prepared and submitted by contractors
- Design reviews conducted as part of the design process
- Preliminary field observations during project construction and testing
- Hazard analysis

- Threat & risk assessments
- Safety Committees
- Operating experience
- Review of control center logs, and maintenance records
- Rule compliance observations
- Employee/passenger/public observations/complaints
- Employee and contractor safety and hazard reports
- Accident investigation findings
- Inspections and audits
- Outside agencies complaints/recommendations
- Recommendations of other transit properties

Port Authority's Hazard Management Program includes specific thresholds at which further analysis, investigation and reporting will occur. The following table identifies issues that must be reported to the RTSRP and the department with primary report writing responsibility. Reportable "unacceptable" hazards will be in compliance with Table 23 "Acceptable Criteria Table" of this document.

Hazards requiring a written hazard investigation, as defined in the table, will be completed by the responsible department, forwarded to Deputy Chief Safety Officer and entering into the Hazard and CAP log for tracking and resolution.

Hazards requiring a formal analysis of trends, as defined in this table, will be tracked in the monthly OSSRC Committee log. Departments with primary report writing responsibilities will submit reports to the Deputy Chief Safety Officer for processing.

In either case, all unacceptable hazards identified in the Hazard table will be reported to the RTSRP within 2 hours and all others as specified in the chart below.

Note: *Any hazard which becomes an accident (e.g., collision with fixed object that involves two or more injuries transported to hospital) will be treated and reported as an accident.*

Table 19 - Required Hazard Reporting Thresholds and Reporting Requirements

Hazard	Applicable to	Reports Required Primary / Support
Any hazard deemed "unacceptable" or equivalent, per the Port Authority hazard management and analysis programs	All rail transit modes	Notify (RTSRP) within two (2) hours of discovery Assemble written hazard investigation report specific to the particular hazard <u>Primary: System Safety</u> <u>Support: As determined by hazard</u>
Red signal violation	All rail transit modes	Notify (RTSRP) within 24 hours. Assemble written hazard investigation report specific to the particular hazard <u>Primary: Rail Service Delivery</u> <u>Support: Road Ops, System Safety, Rail Car Maintenance, PAAC Police</u>
Inclined plane cable or major component failure	Inclined planes	Notify (RTSRP) within 24 hours. Assemble written hazard investigation report specific to the particular hazard <u>Primary: LRT Systems, Power, & Facilities</u> <u>Support: Tech Support</u>
Fire event not otherwise reportable.	All rail transit modes	Notify (RTSRP) within 24 hours. <u>Primary: As determined by event</u> <u>Support: Tech Support, System Safety</u>
Near Miss event - to include Face-up and Work Zone incursion	All rail transit modes	Notify (RTSRP) within 24 hours <u>Primary: As determined by event</u> <u>Support: System Safety</u>

Hazard	Applicable to	Reports Required Primary / Support
Door event, including: (a) Doors open during train movement (b) Doors open on wrong side or off platform (c) Un-commanded door open	All rail transit modes including inclined planes	Notify (RTSRP) monthly (15 th day following the month of the occurrence) Primary: Road Ops, Rail Maintenance, Tech Support Support: System Safety
Trespassing - Unauthorized persons entering the track area – trespassing (known to the transit agency)	All rail transit modes, including inclined planes	Notify (RTSRP) monthly (15 th day following the month of the occurrence) Primary: Port Authority Police Support: Rail Operations, Road Operations
Falls to track area – Persons entering track area – accidental (known to RTA).	All rail transit modes, including inclined planes	Notify (RTSRP) monthly (15 th day following the month of the occurrence) Primary: Port Authority Police Support: Rail Service Delivery, Road Operations
Collision of any fixed guideway transit vehicle not meeting the requirement for reporting as an accident.	All rail transit modes, including inclined planes, and busway incidents only	Notify (RTSRP) monthly (15 th day following the month of the occurrence) Primary: Road Operations Support: Bus/Rail Operations, LRT Systems, Tech Support, System Safety, Port Authority Police
System Failure	All rail transit modes including inclined planes	Notify (RTSRP) monthly (15 th day following the month of the occurrence) Primary: Tech Support, Rail Service Delivery, LRT Systems Support: System Safety

3.4.3 Hazard Investigation, Safety Risk Evaluation and Analysis

3.4.3.1 Hazard Investigation

Hazards which are not resolved at the operating, maintenance, or other front-line department level are appropriately investigated by the System Safety Department, assisted by the responsible Operations Department. Investigation findings are

documented and reported to the local Safety Committee. Those issues that the local Safety Committee is unable to resolve are escalated to the OSSRC through the Chief Safety Officer for resolution.

If Port Authority staff or a Port Authority contractor discovers the existence of a Unacceptable Hazard Condition (UHC), and System Safety concludes by using the Hazard Resolution Matrix that the hazardous condition is categorized as unacceptable (could cause death or injury to passengers or employees if not immediately corrected), the Chief Safety Officer or his designee must be notified immediately. The Chief Safety Officer or his designee must then notify the RTSRP as defined in Section 3.4.2 (Reporting Thresholds).

In certain cases, the RTSRP has determined that a formal investigation is necessary for events occurring at the Port Authority. Required Hazard reporting and written Hazard investigations are defined in Section 3.4.2 of this document.

For investigation of hazards and incidents, the RTSRP will typically request that the Port Authority perform an investigation on its behalf. Such investigations will be conducted in accordance with the processes outlined in Section 3 of this PTASP. To the maximum extent possible, the RTSRP will identify to the Port Authority whether it requires provisions of existing incident documentation or new and independent System Safety Department investigation. The RTSRP may modify deadlines as listed in the procedure due to the nature of a particular hazard or incident.

In the case of hazard investigations, the RTSRP will often request that the Port Authority's System Safety Department conduct an investigation on the RTSRP's behalf, independent of investigatory activities conducted by other Port Authority departments. The RTSRP will typically request that the Port Authority perform a hazard investigation and analysis using its hazard management process as found in this PTASP.

Safety Risk Management and Safety Assurance Activities



Sources of Hazards

3.4.3.2 Hazard Evaluation and Analysis

Hazard Severity (MIL-882E). Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel error; environmental conditions; design inadequacies; and procedural deficiencies for a system, subsystem, or component failure or malfunction as indicated in the following table:

Table 20 - Risk Severity

Category	Description	Mishap Definition
1	Catastrophic	Could result in one or more of the following: death, permanent total disability, irreversible significant environmental impact, or monetary loss equal to or exceeding \$10M.

Category	Description	Mishap Definition
2	Critical	Could result in one or more of the following: permanent partial disability, injuries or occupational illness that may result in hospitalization of at least three personnel, reversible significant environmental impact, or monetary loss equal to or exceeding \$1M but less than \$10M.
3	Marginal	Could result in one or more of the following: injury or occupational illness resulting in one or more lost workday(s), reversible moderate environmental impact, or monetary loss equal to or exceeding \$100K but less than \$1M.
4	Negligible	Could result in one or more of the following: injury or occupational illness not resulting in a lost workday, minimal environmental impact, or monetary loss less than \$100K.

Hazard Probability (MIL-STD 882E). The probability that a hazard will occur during the planned life expectancy of the system element, subsystem, or component can be described subjectively in potential occurrences per unit of time, event, population, items, or activity. A qualitative hazard probability may be derived from research, analysis, and evaluation of historical safety data from the same or similar systems. Supporting rationale for assigning a hazard probability will be documented in hazard analysis reports. A qualitative hazard probability ranking is as follows:

Table 21 - Hazard Probability

Description	Level	Probability	Fleet or Inventory
Frequent	A	Likely to occur often in the life of an item.	Continuously experienced.
Probable	B	Will occur several times in life of an item.	Will occur frequently
Occasional	C	Likely to occur sometime in life of an item.	Will occur several times.
Remote	D	Unlikely, but possible to occur in life of an item.	Unlikely but can be expected to occur.
Improbable	E	So unlikely, it can be assumed occurrence will not	Unlikely to occur but possible.

Description	Level	Probability	Fleet or Inventory
		be experienced to an individual item.	
Eliminated	F	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.

The objective of hazard identification and analysis is to identify and define as many hazardous conditions as possible and enter them into the Hazard Resolution process before those conditions or associated actions cause or contribute to an accident. Although it is virtually impossible to identify every hazard, there are two basic time-tested methods for orderly identification of hazards: inductive and deductive.

The inductive hazard identification method consists of an analysis of system components to identify their respective failure modes and the effects they will have on the total system. This method assumes the failure of single elements or events and, through analysis, determines the potential consequential effects on the system or subsystem. The techniques commonly used for inductive hazard identification include:

- Preliminary Hazard Analysis (PHA)
- Sub-System Hazard Analysis (SHA)
- Operating Hazard Analysis (OHA)

The deductive hazard identification method involves defining an undesired effect or event (e.g., collision, derailment, or fire) and then deducing the possible conditions or system component faults (or combinations thereof) which are necessary to cause the undesired effect or event. The techniques most commonly used for deductive hazard identification are Fault Tree Analysis and Failure Modes and Effects analysis.

Port Authority's system accident experience over its years of operation has been a reliable source of input information to aid both the inductive and deductive processes.

3.4.4 Hazard Control and Elimination

Before implementation of any corrective action, system safety analyses establish a hazard severity category (1 through 4) and a probability ranking (A through F) which

are combined to form a Risk Index, reflecting both severity and probability of occurrence for each identified hazard. A Risk Index is assigned to a hazard before implementation of any corrective action. The range of possible Risk Indices is shown in the following matrix.

3.4.4.1 Hazard Risk Indices

Table 22 - Safety Risk Management Indices

Safety Risk Assessment Matrix				
Severity Probability	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	High 1A	High 2A	Serious 3A	Medium 4A
Probable (B)	High 1B	High 2B	Serious 3B	Medium 4B
Occasional (C)	High 1C	Serious 2C	Medium 3C	Low 4C
Remote (D)	Serious 1D	Medium 2D	Medium 3D	Low 4D
Improbable (E)	Medium 1E	Medium 2E	Medium 3E	Low 4E
Eliminated (F)				

Risk Assessment Matrix (Based on MIL-STD-882E)

Risk assessment criteria will be applied by System Safety staff to the identified hazards based on their estimated severity and probability of occurrence to determine acceptance of the risk or the need for corrective action to further reduce the risk. The risk assessment and acceptance criteria will assist decision-makers in understanding the amount of risk involved by accepting the hazard relative to the costs (schedule, dollars, operations, etc.) to reduce the hazard to an acceptable level or in the case of an unacceptable level implementing reporting and investigation requirements. The following table identifies the acceptance criteria:

3.4.4.2 Acceptance Criteria

Table 23 - Acceptance Criteria

Risk Tolerability Matrix	
Risk Assessment Code (RAC)	Criteria by Risk Assessment Code
1A, 1B, 1C, 2A, 2B	Unacceptable. CEO and RTSRP Notification.
1D, 2C, 3A, 3B	Undesirable. Chief Operating Officer decision required.
1E, 2D, 2E, 3C, 3D, 3E, 4A, 4B	Acceptable with review by Local Safety Committee and approval of Department Chief or Deputy, subject to review by the OSSRC
4C, 4D, 4E	Acceptable with review by Safety Officer and approval by the Deputy Chief or Chief Safety Officer

Risk Tolerability Matrix (Based on MIL-STD 882E)

Action will be taken to eliminate identified hazards or reduce the associated risk. Catastrophic and critical hazards will be eliminated, or their associated risk reduced to an acceptable level. If this is impossible or impractical, alternatives will be recommended for the appropriate decision making.

3.4.4.3 Hazard Resolution Precedence

The order of precedence for satisfying system safety requirements and resolving (eliminating or controlling) hazards will be as follows:

- **Design for Minimum Risk.** The primary safety effort during the design phase of a project will be an attempt to eliminate hazards through selection of design features (e.g., fail safe, redundancy).
- **Incorporate Safety Devices.** Hazards which cannot be eliminated through design will be reduced to an acceptable level through the incorporation of appropriate safety devices.
- **Provide Warning Devices.** Where it is not possible to preclude the existence or occurrence of a hazard, devices will be installed for the timely detection of the hazard condition and the generation of an adequate warning signal.
- **Develop Special Procedures and Training.** Where it is not possible to reduce the magnitude of an existing or potential hazard through design or

the use of safety and warning devices, special procedures will be developed (by contractor or Port Authority, as required) to control the hazard.

All facility, system, and vehicle specification Requests for Proposal will require that responding contractors/suppliers solve hazards in accordance with this list in order of precedence. Specifications will include the requirement for all contractors/suppliers who provide systems, subsystems, or equipment that affect safe vehicle movement or passenger/employee safety to establish and maintain a PTASP. These program plans will, at a minimum, define objectives, tasks, procedures, schedules, and data submittal for the safety activities that will be performed by the contractor/supplier. The contractor/supplier PTASP and supporting documentation must be approved by the Port Authority department responsible for the contract in coordination with the OSSRC.

3.4.4.4 Hazard Tracking

To track hazards not resolved at the operating, maintenance, or other front-line department level, System Safety Division Committees, SERT, and the OSSRC maintain Committee Meeting Minutes which documents ongoing hazards, and includes the following:

- Hazard identification number
- Responsible department
- Description of hazard
- Date identified
- Source of hazard
- Assessment results
- Hazard rating
- Corrective action
- Current status

Unacceptable hazards are also tracked by number and fields noted in the Hazard Reporting and Correction Action Plan in IndustrySafe and online database (PTASPBASE), if required. The RTSRP conducts formal status meetings with Port Authority System Safety Department representatives once each quarter (every three months). More frequent meetings may be conducted if needed, based on current events.

3.4.4.5 Hazard Resolution Schedule

Hazards identified within the system are to be evaluated by appropriate staff and eliminated or controlled to a level acceptable to Port Authority's management. The following schedule has been developed to ensure that the optimum level of safety

is achieved through the expeditious resolution of hazards, once identified. All levels of hazards are reviewed by appropriate staff at least on a quarterly basis.

Table 24 - Hazard Resolution Schedule

Criterion	Resolution Timetable
Unacceptable - CEO and RTSRP Notification.	A hazard with a risk index of unacceptable must be reported to RTSRP within (2) hours of the determination and acted upon as soon as possible.
Undesirable; Chief Operating Officer decision required.	Within fifteen (15) working days, a resolution should be developed and implemented.
Acceptable with review by Local Safety Committee and approval of Department Chief or Deputy, subject to review by the Operations Safety & Security Review Committee.	Within thirty (30) working days, the review process should be completed and accepted.
Acceptable with review by Safety Officers and approval by the Deputy or Chief Safety Officer.	Notification of OSSRC within thirty (30) days

Although Table 23 defines specific criteria for reporting and resolution, actual hazards identified during daily operations are normally resolved or reduced to an acceptable level in a timely manner. Undesirable hazards that may require additional resources beyond normal daily process will be directed to the Chief Operating Officer. The criteria and resolution timetable noted was designed specifically for large scale construction projects and works well for that purpose.

3.5 Coordination with State Safety Oversight Program

3.5.1 Reporting

Port Authority will report hazards as defined in Section 3.4.2 (Hazard Identification & Reporting Thresholds) of this document. Notifications will be made by System Safety staff to the RTSRP by phone or email noted here:

Phone	Email
267-329-9331	RTSRPnotify@gmail.com

Notifications will occur within the prescribed timeframe stated in Hazard Reporting Threshold Table 19 when learning of the hazard. Port Authority will maintain a Hazard log and tracked as defined in Section 3.4.2 of this document.

3.5.2 Corrective Action

Port Authority is required by the RTSRP to develop Corrective Action Plans (or CAPs) for various deficiencies and hazards identified through RTSRP on-site Safety and Security Reviews, Accident or Hazard Investigations, Internal Safety or Security Reviews, NTSB finding and other similar sources.

Specific events that may prompt Corrective Action Plans are defined in this section of this document. Port Authority or the RTSRP may identify need for additional Corrective Action Plans, outside this procedure. If the RTSRP identifies a need for a corrective action beyond those identified in this procedure, the RTSRP will identify the Port Authority in writing.

Corrective Action Plans will be prepared and formatted in accordance with these procedures. Timelines for actual implementation will vary according to the issue being corrected.

3.5.2.1 Cause for Initiation of Corrective Action Plan

On-Site RTSRP Safety or Security Review

Upon receipt of the final report for an RTSRP safety or security review Port Authority will have 30 calendar days to correct identified Findings of Non-Compliance and Findings of Compliance with Recommendation. Port Authority need not provide such a CAP update for individual RTSRP operations reviews and station observations, unless the RTSRP specifically requests such updates.

Event Investigations

Regardless of which agency conducts the investigation process, the final report must contain findings and recommendations for addressing deficiencies or unsafe conditions identified during the process. The resolution of these deficiencies will be the primary responsibility of Port Authority, with assistance provided by the RTSRP as required. Any CAP's must be developed within 30 calendar days of the RTSRP's adoption of the investigation report.

Hazards

Regardless of which agency conducts the hazard investigation process (the Port Authority or RTSRP directly), the final report must contain findings and recommendations for addressing deficiencies. This includes complaints from personnel or the public pertinent to the hazard investigation, all of which must be tracked until the investigation is complete. The resolution of these deficiencies will be the primary responsibility of the Port Authority with assistance provided by RTSRP, as may be required. Upon identification of a hazard, the Port Authority will have 30 days to develop a Corrective Action Plan to correct identified deficiencies.

Internal Safety or Security Review

If the Port Authority finds areas of non-compliance during internal audits of its PTASP, those areas of non-compliance will be remedied by Port Authority's Corrective Action Plan. The Corrective Action Plan must be formulated within 30 days. Likewise, if RTSRP rejects Port Authority's annual safety or security audit report, the Authority will have 30 days to develop a Corrective Action Plan to correct identified deficiencies.

NTSB Investigations

If the National Transportation Safety Board (NTSB) conducts an investigation at Port Authority, it may issue a formal report with recommendations. Should this occur, the Authority will review the recommendations and determine their appropriateness. If the Authority determines that a recommendation is appropriate, it will develop a corresponding Corrective Action Plan to address the recommendation.

If the Port Authority determines that a particular recommendation is not appropriate, the RTSRP may require it to conduct a supplemental hazard analysis or investigation to support this conclusion. A written record of all analyses of NTSB recommendations will be maintained.

Response to FTA Notifications

If the Federal Transit Administration (FTA) bulletin is applicable to the Port Authority, RTSRP may require the Authority to develop a written record of all analyses of FTA recommendations and develop corresponding Corrective Action Plans to address recommendations.

Major Capital Projects

Preliminary Hazard Analyses, Threat and Vulnerability Assessments, and other studies that Port Authority must conduct of its major capital projects – such as a safety certification – may identify room for improvement. Such deficiencies must be addressed through development of formal CAP within 30 days after completion of the study.

Data/Trend Analysis

The Port Authority must conduct analysis of operational and maintenance data as well as repeated occurrences of hazards and incident to determine the existence of trends. Upon discovery of a trend, the Port Authority must develop a CAP within 30 days.

Other

In the course of performing or reviewing on-site safety and security reviews, investigations, annual safety audits, or any other means by which RTSRP becomes aware of an unacceptable hazard that requires immediate attention, RTSRP will notify the Port Authority in writing of the identified hazard and direct the Authority to prepare a Corrective Action Plan. The timeframe for the Corrective Action Plan will be specified in the written notification from RTSRP.

3.5.2.2 Corrective Action Plan Required Components

Corrective Action Plans will include the following information:

- Date Identified – Date the CAP was generated.
- Source – What generated this CAP (ex. FTA reporting requirement, Accident/Incident, Hazard, etc.)
- Finding – Description of the deficiency or needed improvement.
- Hazard Rating – Rating based upon hazard analysis, if required.
- Corrective Action Plan – CAP must clearly address the precipitating event or hazard and outline proposed mitigations.
- Notes/Comments – RTA/RTSRP will enter progress and feedback on open CAP.
- Responsible Party – Individual/department responsible for CAP.
- CAP Issue Date – Date at which RTA submitted CAP to RTSRP.
- CAP Target Date – Proposed date at which the CAP will be completed.
- Transit Agency Status – Open, Awaiting Verification or Closed.

3.5.2.3 Corrective Action Plan Schedule & Format

The Port Authority will submit CAPs on two schedule bases:

- 1.** The Port Authority will draft and submit Corrective Action Plans in accordance with procedure sections in this document, e.g., as part of an accident investigation final report, as part of an internal audit report, etc. will be logged in the IndustrySafe CAP log.
- 2.** The Port Authority will, review the CAPs on an on-going basis, but not less than once per quarter each year, update any open findings in the IndustrySafe website when there has been new information or documentation relevant to the open finding.

3.5.2.4 RTSRP Corrective Action Plan Review & Approval

The RTSRP will review each Corrective Action Plan and evaluate it compared to the identified issue (accident cause, audit finding, hazard, etc.). Depending on the type of Corrective Action Plan and the issue it addresses, the RTSRP will ask Port Authority for additional supporting information, possibly including documentation, records, field demonstration of a revised process or procedure, or a follow-up audit or review. In most cases, at a minimum, the Port Authority should anticipate collecting and submitting supporting documentation to substantiate the CAP activity.

The RTSRP will approve Corrective Action Plans at three intervals:

- 1. On initial submittal:** The RTSRP will review the Corrective Action Plan and looking at its appropriateness to the issue at hand, its timelines, its practicality, and similar factors, will approve the CAP if appropriate.
- 2. When updated or submitted as part of overall CAP log:** The RTSRP will review the Corrective Action Plan, any changes to its scope, timing, or approach, and its progress to date, and will approve the CAP if appropriate. During this phase, the RTSRP may ask for interim verification evidence or an interim demonstration of progress in the field.
- 3. When submitted with a closed or completed status:** The RTSRP will review the Corrective Action Plan's completeness, and will conduct a final verification of documentation, records, or process implementation, as appropriate to the particular issue. The RTSRP will approve the closure of the CAP or may request additional information or action.

The RTSRP will make all Corrective Action Plan approvals, as well as requests for additional CAP-related information, in writing.

If RTSRP rejects a Corrective Action Plan, the Port Authority will have 15 days to address noted deficiencies in the plan and submit a revised plan to RTSRP. The RTSRP, at its discretion, may arrange for a meeting with the Authority to discuss the noted deficiencies.

The RTSRP will modify the timeframes involved if needed for a particular Corrective Action Plan and will notify the Authority of any such changes.

4.0 SAFETY ASSURANCE

4.1 Management of Change Section Overview System Modification, Safety Certification, Configuration Management, System Change Control

Section 4 describes the process used by Port Authority to ensure that safety concerns are addressed in modifications to existing systems, vehicles, and equipment, which do not require formal safety certification, but which may have safety impacts. This section also describes the safety and security certification process required by Port Authority to ensure that safety concerns and hazards are adequately addressed prior to the initiation of passenger operations for New Starts and subsequent major capital projects to extend, rehabilitate, or modify an existing system, or to replace vehicles and equipment. In addition, Section 4 describes the decision-making process Port Authority uses to determine if the formal safety and security certification process will be applied for a particular project. Lastly, this section includes a description of the configuration management and system change control process.

4.2 Managing Safety in System Modification

It is the intent of the Port Authority to include future major extensions, acquisition and integration of new rail vehicles and safety critical technologies into existing service and major safety critical redesign projects, excluding similar replacements into the safety certification process. It is also the intent of the Port Authority to notify the RTSRP of any projects and/or procurements that may require safety certification prior to the design phase.

As the transportation authority of the region, it is expected that Port Authority undergo its own process of change to keep pace with the area it serves. Any change or modification to the Port Authority's transportation equipment or system is controlled to assure that safety is incorporated into the plans and designs of the modified equipment or system in accordance with the Port Authority's Engineering & Construction QA/QC Manual, Design Management Procedures Manual, Contract Terms and Conditions, Contract Technical Provisions and Port Authority's Configuration Management Plan.

4.2.1 Coordination

Proposed system modifications are coordinated within the Engineering/ Technical Support Division by the Technical Support and Capital Programs Department, Procurement Department, Operations and Maintenance Departments, and reviewed by System Safety Unit and the affected department.

The Director of Technical Support and Capital Programs is tasked with ensuring that equipment purchased by the Authority meet established safety requirements and that design requirements have been coordinated with all appropriate departments. The Port Authority Technical Support and Capital Programs Department coordinates major equipment rebuilds, repairs, and retrofits, in addition to monitoring the installation of facility systems and equipment to ensure compliance with contractual requirements and procedures. It performs the inspection and testing activities necessary to ensure that the equipment and operations result in the desired level of safety, and documents equipment and facility modifications and informs affected staff of modifications. The Director of Technical Support and Capital Programs has the authority to stop work on all unauthorized modifications.

Design Management Procedure Manual applies to all engineering and construction capital projects. Configuration Management Plan applies to modifications and system changes relating to light rail vehicles and railway side equipment and systems that do not fall under the purview of the Design Management Procedures Manual.

4.2.2 Safety Reviews

A coordinated process for safety review (design, plan and procedure review) is required prior to any change or modification to the Port Authority transportation system. Safety reviews are performed to assess the compliance of the facility or equipment design with safety, fire, and environmental regulations and requirements in specifications and to ensure that the safety of existing Port Authority equipment and systems are not degraded.

The safety reviews for system modifications must include the System Safety Unit and the OSSRC. External review of system modifications by outside agencies such as FTA and PRTSRP are coordinated by the Chief Safety Officer.

Comments from safety review process are implemented or resolved prior to system modification and kept on file with disposition and supporting rationale. Unresolved comments and exceptions are addressed in the OSSRC meeting.

4.2.3 Safety-Related Testing

Required safety-related tests are identified and documented during equipment planning and procurement. Hazards that become apparent during testing are reported and resolved either by equipment redesign, use of safety warnings, or the imposition of special procedures. The Chief Safety Officer, OSSRC, and other staff as necessary support Technical Support and Capital Programs, Operations and Maintenance Departments in this effort.

Equipment testing is primarily concerned with verifying that:

- The equipment can perform in Port Authority's operating environment while meeting required specifications.
- The equipment can be integrated with other equipment to provide dependable service.
- Personnel, procedures, and equipment can function safely together in normal, abnormal, and emergency conditions.

4.2.4 Acceptance

The process of final acceptance of new equipment and systems includes a resident engineer arranging and conducting a semi-final inspection after contractor notification that project is complete.

- The resident engineer conducts the semi-final inspection, accompanied by the contractor, members of construction management staff and representatives of Port Authority.
- All deficiencies are recorded and provided to the contractor. When corrected, the resident engineer arranges a pre-final inspection. Attendees will include the resident engineer, construction management staff, and appropriate Port Authority personnel.
- Any deficiencies found will be documented and provided to the contractor. Upon completion of the work by the contractor, a final inspection will be conducted.
- If no deficiencies are found during the final inspection, as conducted by the resident engineer, the contractor and Port Authority representatives, the resident engineer will issue a "recommendation to accept final inspection" to Port Authority.
- The "Issuance of Certificate Accepting the Final Inspection" will then be issued by the Chief Engineer.
- In addition, Safety and Security Certification plans are developed and implemented for major expansion projects in accordance with the respective FTA Full Funding Grant Agreement and FTA Circular - Safety and Security

Management Guidance for Major Capital Projects C5800.1, Safety and Security Management and Final Verification of Safety and Security Certification.

All major modifications to the Port Authority transportation system require approval and sign-off by appropriate Port Authority management.

4.2.5 Hazard Management

The OSSRC, through its members and sub-committees, participates in design reviews and takes the lead role in ensuring that any hazards associated with system expansion or modifications of any kind are worked into the Hazard Management Process. In this way, any accepted risks associated with such system changes will be documented and tracked from the outset.

4.3 Safety and Security Certification Program

PAAC will conduct Safety and Security Certification of projects meeting the requirements referenced in FTA Circular - Safety and Security Management Guidance for Major Capital Projects C5800.1, Safety and Security Management and Final Verification of Safety and Security Certification following the most current version of the FTA Handbook for Transit Safety and Security Certification.

4.3.1 Responsibilities

Endorsed by the CEO/AE, the Port Authority's Engineering/Technical Support Division is responsible for the Port Authority's capital improvement program and projects. This includes the planning phases, design/engineering phase, and the construction and close-out phases.

When a Safety and Security Certification Subcommittee (SSCS) is convened, it is chaired by the respective project manager or designee and is a subcommittee of the Port Authority's OSSRC. The SSCS is established to monitor the safety and security certification process for major capital projects. In addition, the Port Authority established the Safety and Security Certification Review Committee (SSCRC), a functional multi-disciplined group representing the Port Authority and its designated contractors. The SSCRC comprised of project and Port Authority managers and staffers having expertise in systems engineering, facilities engineering, maintenance engineering, construction management, operations, systems integration, and system safety and security. A representative of the PRTSRP participates in SSCRC activities as an advisor.

The SSCRC is responsible for managing and coordinating all safety and security certification activities including review of safety and security-related tests, and other documentation submitted. The SSCRC chairperson or designee prepared and issued

SSCRC meeting minutes that included a list of safety and security open items. The SSCRC made the initial review and recommendation for approval of:

- Safety and security certification plans including forms to be used in process
- Safety certifiable elements and sub-elements lists
- Draft safety and security verification checklists
- Completed safety and security verification checklists
- Assessment of existing Port Authority operations, maintenance and training programs adequacy, safety and security
- Safety and security test plans and procedures

The SSCRC also is responsible for monitoring the processing and retention of safety and security certification documentation.

4.3.2 Purpose

The purpose of the Port Authority Safety and Security Certification Program is to ensure that all Port Authority safety critical systems, rail vehicles, and major capital project systems, equipment, facilities, plans, procedures, and training programs are systematically reviewed for compliance with established safety and security design criteria requirements, and so verified prior to initiation into revenue service.

Safety and Security Certification will be conducted in accordance with the respective requirements of FTA Circular 5800.1 and/or the requirement of the current PRTSRP Procedures.

4.3.3 Objectives

The Port Authority Safety and Security Certification Program is modeled after FTA Safety and Security Handbook and numerous safety and security self-certification programs and plans adopted by similar light rail systems within North America involved in upgrading, expanding and modernizing existing systems, and constructing new start systems.

The following safety and security objectives are considered during all activities of all major projects and modifications that require safety certification.

Table 25 - Safety and Security Objectives

Objectives
Establish a formalized process that is sufficiently documented to verify compliance with safety and security requirements
Ensure that safety and security is an integral part of design, procurement, construction, testing and operations
Ensure that safety and security decisions are made by appropriate Project Managers, committees and responsible contractors
Ensure that safety and security hazards and vulnerabilities that become apparent during reviews, audits, inspections or system testing are resolved, either by redesign, use of safety/warning devices or by implementation and enforcement of special procedures
Ensure that outside response agencies, including the affected fire and police departments, are prepared to respond to normal, abnormal and emergency situations

4.3.4 Implementation

Safety and security certification for Port Authority major capital projects are implemented as a four-step process that includes:

- Engineering contractors certifying that each contract design is in conformance with the design criteria
- Construction contractors certifying that the work is completed in accordance with the contract requirements. The program manager and all contractors verifying that safety and security-related documentation has been accounted for
- The program manager and construction contractors verifying that Port Authority existing and new plans and procedures support safe operations and maintenance activities
- The Port Authority Safety and Security Certification Subcommittee (SSCS) verifying that the project has conformed to the project specific safety and security certification process established following verification of the design and construction documentation, new operations and maintenance procedures, and the integrated testing and training records.

A description of the activities required for implementing a safety and security certification program for a major capital project at the Authority is shown in the table below.

Table 26 - Milestones for Safety and Security Certification Activities

Activity	Planning	Preliminary Engineering	Final Design	Construction	Integrated Testing	Pre-Revenue	Operations
Document control	✓	→	→	→	→	→	→
Development of safety and security certification plan	✓	✓	→	→	→	→	→
Hazard and vulnerability assessment and resolution	✓	✓	→	→	→	→	→
Criteria and design review	✓	✓	→	→	→	→	→
Develop safety certifiable elements and sub-elements list	✓	✓	→	→	→	→	→
Evaluate and resolve fire/life safety issues and monitor fire/life safety compliance	✓	✓	→	→	→	→	→
Develop criteria conformance review checklists	✓	✓	→	→	→	→	→
Evaluate security provisions incorporated in system elements for adequacy and safety	✓	✓	→	→	→	→	→
Develop criteria conformance review checklists	✓	✓	→	→	→	→	→
Evaluate security provisions incorporated in system elements for adequacy and safety	✓	✓	✓	→	→	→	→
Manage safety, system security open items list	✓	✓	✓	→	→	→	→
Develop safety and security verification checklists	✓	✓	✓	→	→	→	→
Complete safety and security verification checklists for system	✓	✓	✓	✓	→	→	→
Complete safety and security verification checklists for civil work	✓	✓	✓	✓	→	→	→
Develop and implement contractor test plans and procedures	✓	✓	✓	✓	→	→	→
Contractor test reports/results	✓	✓	✓	✓	→	→	→

Activity	Planning	Preliminary Engineering	Final Design	Construction	Integrated Testing	Pre-Revenue	Operations
Develop integrated test plans and procedures	✓	✓	✓	✓	→	→	→
Manage integrated test program	✓	✓	✓	✓	→	→	→
Integrated test reports/results	✓	✓	✓	✓	✓	→	→
Develop contractor's operations and maintenance procedures, and training plans/programs	✓	✓	✓	✓	✓	→	→
Assess existing Authority operations and maintenance procedures and training plans/programs for adequacy and safety	✓	✓	✓	✓	✓	✓	→
Issuance of safety certification	✓	✓	✓	✓	✓	✓	→

✓ Start of activity
→ Continue activity

4.3.5 Verification and Approval

Ultimate approval of the safety and security certification of a major capital project is by the Port Authority Safety and Security Certification Subcommittee (SSCS) prior to turning project elements over to Port Authority Operations for initiation into revenue service.

A pre-revenue assessment of an oversight nature is performed by the PRTSRP of the projects physical systems and facilities, operating and maintenance rules, procedures, and training, and actual operations.

Major capital projects are funded in part with federal funds and therefore the FTA has oversight and review responsibilities defined in their Readiness Review Program. The PRTSRP also reviews the safety of start-ups and system expansions of new and existing fixed guideways within the Commonwealth of Pennsylvania. Therefore, they will be active in the oversight of the safety and security certification process.

To ensure that Port Authority management and staff, and others as appropriate remained informed of the status of the safety and security certification effort, progress reports are prepared by the certification committee and submitted to SSCS for review and approval. The reports advise the SSCS of the following:

- Checklists and Notice of Verification Reports completed during report period
- Problems encountered and restrictions enforced
- Major modifications made to Certifiable Elements and Sub-Elements List
- Checklists and Notice of Safety and Security Verification Reports expected to be completed in upcoming report period
- Certification progress to date

Safety and Security Certification at Port Authority is defined as the process of addressing conditions that could result in harm – whether unintentional (safety) or intentional (security), and verifying satisfactory compliance with the Port Authority PTASP and SEPP, appropriate codes, guidelines, standards, and safety and security-related design criteria and technical provisions.

Certification for safety and security is not contractual acceptance. Contractual acceptance is defined as an action by an authorized representative of the transit agency by which the agency assumes full or partial ownership of the delivered product as complete or partial performance of a contract. Contractual acceptance does not constitute safety and security certification, and safety and security certification need not imply acceptance with respect to contract performance.

4.4 Configuration Management

4.4.1 Description of Process

The Authority's Configuration Management (CM) is the systemic engineering process to provide visibility and control of an asset's functional and physical attributes within design and operational requirements throughout its service of life. The process facilitates orderly management of information and changes for such beneficial purposes as to revise capability; improve performance, reliability, or maintainability; extend service life; reduce cost; reduce risk and liability; or correct defect.

Changes to the asset are proposed, evaluated, and implemented using a standardized, systemic approach that ensures consistency. Proposed changes are evaluated in terms of their anticipated impact on the entire system and interactions therefrom. CM process ensures that changes are properly documented and reflect current asset configuration.

The Authority's Configuration Management Process is a seven (7) step process consisting of Initiation, Analysis/Planning, Design, Testing, Formal Notifications, Implementation and Documentation. For more detailed information on the seven steps, please refer to Port Authority's Configuration Management Plan dated February 2018.

Required configuration information is maintained and tracked by documenting test/modified equipment as well as relevant serial numbers and dates of installation of standard equipment. The Director of Technical Support/Capital Programs, located in the Heinz Building, is responsible for storing and retrieving facilities and equipment configuration information as well as informing affected staff of configuration changes in a timely manner, and keeping the data current. The Manager of Railcar Maintenance, at South Hills Village Rail Center, is responsible for maintaining configuration of LRVs and informing affected staff of configuration changes in a timely manner. The Director of Main Shop located at Manchester is responsible for maintaining configuration of bus equipment and informing affected staff of configuration changes in a timely manner.

4.4.2 Process for Changes

Changes to configuration will be classified as to their impact and functional importance to operations.

- Class I changes are defined as hardware, material, or software changes which affect vehicle or equipment performance, specification requirements, previously approved documents, or interchangeability with existing components. Class I changes are reviewed by the OSSRC for their safety implications and submitted with appropriate documentation to the Chief Operating Officer for approval.
- Class II changes are defined as hardware, material, or software changes which do not affect vehicle or equipment performance, specification requirements, previously approved documents, or interchangeability with existing components. Class II changes are submitted to the OSSRC for information.

If hazards are introduced by a change, these hazards are documented and tracked in the Port Authority's SRM Hazard Log until they are resolved.

The above must be satisfied prior to approval by the Chief Safety Officer for changes or modifications applicable to the Configuration Management Plan.

4.4.3 Authority for Change and Notification

The Engineering and Construction QA/QC Manual and Contract Technical Provisions contain the specific elements for change orders as they apply to construction and the purchase of new systems and vehicles.

5.0 SAFETY PERFORMANCE MONITORING AND MEASUREMENT

5.1 Safety Performance Indicators and Targets

PAAC's performance targets based on the safety performance criteria and state of good repair standards set out in the National Public Transportation Safety Plan as required in 49 CFR 670, Subpart D.

PAAC established Safety Performance Targets (SPT's) based on Key Performance Indicators (KPI's) for safety as required by the National Public Transportation Safety Plan and as part of its SMS. This will be pursuant to 49 U.S.C. § 5329(d), a Public Transportation Agency Safety Plan must include safety performance targets based on the safety performance measures in this Plan. They include, Fatalities for each mode, Total Injuries, Safety Events and System Reliability. The four criteria are based upon the National Transit Database (NTD) reporting requirements and a rate established based upon one million vehicle revenue miles traveled. These targets were established based upon rates of the four prior years relative to each category. This data and supporting data are provided to the PAAC Board at least annually.

5.1.1 Safety Performance Measures/Targets for PAAC MODES of Transit

Table 27 - Rail Transit Performance Measures

MEASURE	ACTUAL NUMBER	PRIOR YEAR RATE	TARGET RATE	COMMENT
FATALITIES	0	0	0	
INJURIES – TOTAL	2	.95	1.0	
SAFETY EVENTS (NTD)	9	4.5	4.3	
SYSTEM RELIABILITY	10,000	XXX	XXX	

Table 28 - Bus Transit Performance Measures

MEASURE	ACTUAL NUMBER	PRIOR YEAR RATE	TARGET RATE	COMMENT
FATALITIES	0	0	0	
INJURIES – TOTAL	80	3.0	3.8	
SAFETY EVENTS (NTD)	68	2.5	3.2	
SYSTEM RELIABILITY	8,000	XXX	XXX	

Table 29 - Paratransit (ACCESS) Performance Measures

MEASURE	ACTUAL NUMBER	PRIOR YEAR RATE	TARGET RATE	COMMENT
FATALITIES	0	n/a	0	
INJURIES – TOTAL	30	n/a	0.33	
SAFETY EVENTS (NTD)	34	n/a	0.39	
SYSTEM RELIABILITY	33,064	XXX	XXX	

System Safety will report the following data to the PAAC Board at least annually:

- **Fatalities** – total number of reportable fatalities and rate per million revenue vehicle miles, by mode, regardless of the cause of the fatality. *(NPTSP Part 670) (Categorized by customer, employee, contractor.)*
- **Total Injury Rate** – based on National Transit Database (NTD) Reporting Criteria, total number of reportable customer and employee injuries and rate per million vehicle revenue miles by mode, regardless of the cause of the injury. *(NPTSP Part 670)*
- **Safety Events (Rail transit)** – total number of reportable events and rate per million light rail vehicle revenue miles per NTD reportable events. *(NPTSP Part 670)*
- **Safety Events (Bus)** – total number of events and rate per million vehicle revenue miles by each separate mode (bus and paratransit) per NTD reportable events. *(NPTSP Part 670)*

- **System Reliability** – measured as revenue miles operated divided by the number of major mechanical failures. (also known as State of Good Repair) (*NPTSP Part 670*)
- **Rail Total Injury Rate** – the number of injuries to passengers per million revenue miles including injuries on escalators, injuries to transit facility occupants and injuries to passengers onboard trains, regardless of the cause of the injury.
- **Bus Total Injury Rate** - the number of injuries to passengers per million revenue miles including injuries related to bus collisions and other injuries such as while boarding, alighting and sudden stops, regardless of the cause of the injury.
- **Paratransit Total Injury Rate** – the number of injuries to passengers and employees per one hundred thousand revenue miles including injuries related to collisions and other injuries such as while boarding, alighting, and sudden stops, regardless of the cause of the injury.
- **Bus Collision Rate** – the number of preventable and non-preventable bus collisions per million revenue miles.
- **Paratransit Collision Rate** – the number of preventable and non-preventable vehicle collisions per one hundred thousand revenue miles.
- **Bus Pedestrian/Cyclist Incidents** – the number of incidents in the calendar year involving pedestrians and cyclists.
- **Smoke and Fire Incidents** – the number of incidents in the calendar year.
- **Suicides** – the number of incidents in the calendar year.

5.2 Safety Assurance - Safety Performance Monitoring

5.2.1 Internal Safety Audit Process Section Overview

Planned and scheduled internal safety audits are performed to monitor safety performance, an SMS subcomponent of the Safety Assurance process, and to evaluate compliance with safety management, including identification of departments and functions subject to review; responsibility for scheduling reviews; process for conducting reviews, including the development of checklists and procedures and the issuing of findings; review of reporting requirements; tracking the status of implemented recommendations; and coordination with RTSRP, including annual internal audit report and safety certification. There is a requirement that reviewers are independent from the first line of supervision who are responsible for the activity being reviewed and for the use of written checklists.

5.2.1.1 Department and Functions Subject to Review

The Port Authority Internal Safety Audit Program encompasses the annual audits required by RTSRP (49 CFR 673.27 and/or supplemented by RTSRP requirements) including, semi-annual (6 month) facility inspections, and periodic audits in the areas of operations and maintenance. From time to time Port Authority will also be subjected to other safety audits required by the RTSRP, FTA and other agencies

or deemed warranted by Port Authority management. Some audits/reviews will be formal, others unannounced. Elements that must be audited internally at least once during a three-year cycle and are included in the internal audit process required by 49 CFR 673.27, and RTSRP are summarized in list below:

- SMS Policy statement, chief executive endorsement, SMS program authority
- SMS program goals and objectives, management responsibilities for completion
- Overview of management structure
- PTASP update and change control process
- PTASP Implementation activities
- Hazard management program implementation activities
- Safety certification
- Managing safety in system modifications
- Safety data collection, maintenance, analysis, and distribution process(es)
- Accident notification, investigation and reporting
- Emergency management activities scheduling
- Internal audit process
- Rules Compliance
- Facilities and equipment safety inspections
- Maintenance audits and inspections program
- Training and certification of employees and contractors
- Configuration management and control process
- A description of the safety program for employees and contractors that incorporates the applicable local, state, and federal requirements
- Hazardous Materials
- Drug and Alcohol program
- Procurement
- CAP Process
- Roadway Worker Protection

Internal audit reviewers must be independent from the first line of supervision responsible for the activity being reviewed.

The following audit items will be audited by Port Authority personnel other than System Safety Unit:

- SMS Policy statement, chief executive endorsement, SMS program authority
- SMS program goals and objectives, management responsibilities for completion
- Overview of management structure
- Plan review and modification
- PTASP update and change control process
- PTASP Implementation activities performed by System Safety Unit

5.2.1.2 Purpose and Objectives of Safety Audits

The purpose of the Port Authority Internal Safety Audit Process is to establish an audit system for continual measurement, improvement, and appraisal of the administrative process with regard to system safety. Audits seek to discover program compliance as well as imperfect performance that may result in accidents/incidents with an adverse effect on the Authority, its customers, employees, and the general public. This process and its scope encompass all elements of the Port Authority PTASP as required by 49 CFR 673.27.

The objectives of the Internal Safety Audit include the following:

- To provide a system to independently and objectively measure and quantify work being done to manage and control hazards
- To provide a system to guide the development and improvement of the Public Transportation Agency Safety Plan
- To provide a complete or total systematic approach to system safety management

5.2.1.3 RTSRP Requirement

The PennDOT RTSRP requires the Port Authority to develop and document a process for the performance of on-going internal safety audits to assess implementation of the PTASP.

The internal safety audit process must at a minimum:

- Describe a process used by the Port Authority to determine if all identified elements of its Public Transportation Agency Safety Plan (PTASP) and Security & Emergency Preparedness Plan (SEPP) are performing as intended.
- Determine if areas of PTASP or SEPP non-compliance and hazards are being identified in a timely manner; and
- Ensure that all elements of the PTASP and SEPP are reviewed in an on-going manner and over a three-year cycle.

Audit Cycle/Schedule Required by RTSRP

On or before December 1 of each year, the Port Authority Chief Safety Officer submits to the RTSRP a schedule of safety and security internal audits, including an outline for audit activity over the next three years, and specific scheduling details (at a minimum the month or quarter of anticipated schedule) for any audits in the next calendar year. At a minimum, the Port Authority is required to notify

RTSRP at least 30 days before the conduct of internal safety or security audits. As schedule information becomes more certain, the Port Authority Chief Safety Officer updates the RTSRP as soon as possible via email or phone. The RTSRP will notify the Port Authority of its intention to participate in the audits.

Audit checklists and procedures to be used for scheduled audits are provided by the Port Authority to the RTSRP prior to conducting the audit. Checklists and procedures may be submitted en masse at the beginning of the year. Following completion of an audit for which RTSRP has received the checklist and procedure, only new or revised documents are required to be submitted to the RTSRP.

The Chief Safety Officer also, provides the annual audit list to the OSSRC members prior to the audits commencing. The appropriate department managers are notified, and schedules are agreed upon. All involved departments are required to provide absolute cooperation in audit process.

5.2.1.4 Responsibility for Scheduling Reviews

The Port Authority Chief Safety Officer is responsible for developing and distributing standard procedures to be followed when conducting planned/formal audits. The reviewed department is informed of the audit/review and provided with information regarding the purpose, scope, and content of the planned safety audit/review. Preliminary findings are communicated as soon as practicable to enable expeditious corrective action. Follow-up audits/reviews may be conducted without advance notice.

Internal department audits are conducted by department management as described by established procedure and/or at the discretion of the division's group manager or in special situations as requested by departmental directors.

The Bus Main Shop is responsible for the quality assurance function, conducts annual audits of all bus divisions' maintenance departments. Audits are designed to review maintenance schedules defined in Section 2 of this document as well as other pertinent issues.

5.2.1.5 Port Authority Safety Audit Processes and Procedures

All Port Authority departments are subjected to safety audits that include fire/life safety issues and/or those areas defined by this Plan. The Chief Safety Officer assisted by the OSSRC will coordinate with the fire departments to develop, train, and test Port Authority performance in emergency and operational procedures, ensure that selected fire/life safety-related equipment is in proper order, and determine that associated personnel are appropriately trained. Testing and

inspections of fire/life safety equipment are performed in accordance with applicable codes.

Responsible departments are expected to document inspections, testing, training, reports of unsafe conditions, accidents, injuries, investigations, procedures, and other records as necessary for the audit. Certain critical operations that require more rigorous review/audit include training and maintenance programs.

Interviews with Knowledgeable People - Auditor(s) may conduct interviews with Authority personnel knowledgeable of the Public Transportation Agency Safety Plan to identify activities allegedly in place at the audited unit. The interviews consist of a dialogue utilizing established guideline information in the audit and/or specific questions pertinent to the audit.

Formal documentation of interviews, if conducted, as well as all aspects of the audit format, is maintained by the auditor. Program deficiencies are noted in the working audit for inclusion in the final written report. A total overall score is calculated by the auditor(s) as a percent (%) attainment.

Verification of Information - Auditor(s) focus on three major methods of checking actual existence and effectiveness of the audited program activities:

- Record checks
- Site interviews
- Physical inspections

Record checks, if conducted, are performed during the interview process described above or separately by the auditor. At times, it is necessary to conduct record checks at other or field locations due to the diversity of various Authority operations.

Record Checks - Auditor(s) select records from available documentation to verify answers provided to audit questions. For example, in assessing planned inspections, where the procedure requires quarterly physical inspections by use of a checklist, files from the previous year and up to date for current year should be checked for procedure compliance and completeness.

Employee Interviews - When conducting comprehensive audits, on-site interviews may include: senior and middle managers; front-line supervisors; and hourly employees. Interview questions should be designed to verify that alleged program activities are in place and understood.

Physical Inspections - Part three of the audit verification process is physical inspection. Physical inspections are part of the comprehensive audit process and

will be as thorough as possible when conducting baseline audits. Spot inspections of physical activity or conditions may also be part of the audit process or used as a follow-up tool for deficiencies found. After baselines are established, the scope of subsequent audits may narrow in their focus to direct inspection activity on known deficiencies and/or program compliance. Physical inspection checklists are part of the working audit and will be prepared in advance and provided to the PRTSRP.

Physical inspections, as well as other elements of the audit, are measurable. Therefore, the end result of these inspections is a percent (%) attainment score for those items checked and found in working or as-designed condition.

Audit Findings

The Chief Safety Officer is responsible for the direction of the reviews and audits of Port Authority departments, sections or units, and contractors to determine performance related to system safety goals and activities. Audit guidelines will be developed by the Chief Safety Officer to measure the success in implementation of safety policies, procedures, and requirements.

All audits are fully documented and reported. Upon completion of each internal safety audit, the System Safety Department will issue a report of the results, specify any areas of deficiency, make recommendations, identify corrective actions, and issue copies of the report to the affected department heads.

Each department manager is responsible for carrying out the approved recommendations and action plans resulting from an internal safety audit as determined by the OSSRC. Any manager who foresees or encounters a problem concerning compliance with implementation within the established time frame is to inform the Chief Safety Officer or his designee. A process will be established by the OSSRC to address and resolve all implementation issues.

Individual Audit Reports

Port Authority System Safety will submit individual audit reports to the RTSRP within 45 days of the date on which the audit was completed.

Annual Report

On or before February 1st of each year, Port Authority System Safety department will submit an annual report to the PRTSRP that documents the internal safety audits performed in the previous calendar year. The safety and security audit reports will be submitted separately. Individual audit reports previously submitted

will not be resubmitted but referenced in the annual report as being part of the internal safety audit process. The annual report will include the following elements:

- A summary of corrective actions generated by each audit
- The status of each corrective action plan
- A list of all audits included in original schedule for the year, indicating dates each audit was completed or identifying the audit as incomplete
- A summary of significant audit findings
- A statement by the Port Authority's Chief Executive Officer certifying compliance with the PTASP or identifying areas of noncompliance and activities the Port Authority will undertake to achieve compliance

Within 30 days of receipt, RTSRP will issue a written response either accepting or rejecting the annual safety audit report. If the RTSRP rejects the report, the Port Authority will address the noted deficiencies and requested changes in the report within 15 days and submit a revised report to RTSRP. The RTSRP, at its discretion or at the Port Authority's request may arrange for a meeting with the Port Authority to discuss the noted deficiencies and requested changes.

If the annual safety report is accepted by the RTSRP, then no further actions relative to the annual safety audit report will be required by the RTSRP for that annual period. RTSRP may require other information or analysis that relates to the safety audit process, as part of some other aspect of the state oversight program.

In the event the Port Authority objects to a noted deficiency or requested change from RTSRP it will state its objections and suggest alternatives within 5 days. RTSRP and the Port Authority shall review the objections and suggested alternatives and agree to an appropriate course of action within 15 days. The revised and updated report will be submitted to the RTSRP for review and approval within 30 days after agreement on a course of action.

The Port Authority will transmit the Annual Safety Audit Report to RTSRP in a format agreed to by the RTSRP Program Manager (electronic or hard copy). Once approved, a final version of the report will be submitted in an unalterable format with all Port Authority approval signatures visible.

Corrective Actions

If Port Authority finds areas of non-compliance during internal audits of its Public Transportation Agency Safety Plan, Security and Emergency Preparedness Plan, or corrective actions noted in After Action Reports, those areas of non-compliance will be tracked in the Corrective Action Plan managed by System Safety. Safety & Security issues are also brought to the monthly Operations Safety and Security Review Committee OSSRC, for discussion and resolution. Issues brought to the

OSSRC are tracked in the monthly minutes until closed by the committee. The Corrective Action Plan must be formulated within 30 days.

The Corrective Action Plan will include the following information:

- Date Identified – Date the CAP was generated.
- Source – What generated this CAP (ex. FTA reporting requirement, Accident/Incident, Hazard, etc.)
- Finding – Description of the deficiency or needed improvement.
- Hazard Rating – Rating based upon hazard analysis, if required.
- Corrective Action Plan – CAP must clearly address the precipitating event or hazard and outline proposed mitigations.
- Notes/Comments – RTA/RTSRP will enter progress and feedback on open CAP.
- Responsible Party – Individual/department responsible for CAP.
- CAP Issue Date – Date at which RTA submitted CAP to RTSRP.
- CAP Target Date – Proposed date at which the CAP will be completed.
- Transit Agency Status – Open, Awaiting Verification or Closed.

Port Authority will forward the corrective action to RTSRP for approval. RTSRP will notify the transit agency in writing of its acceptance or rejection in within 15 days after receipt of the Corrective Action Plan.

Tracking and Status of Implemented Recommendations

All corrective actions and recommendations not meeting an unacceptable hazard rating will be tracked by the System Safety Department for compliance using the audit findings tracking log. This log is updated monthly by System Safety.

Hazards identified during internal audit process are to be addressed and resolved by the responsible department or unit utilizing routine corrective measures. Unacceptable hazards identified during internal audits will be tracked in the Corrective Action Plan log (PTASPBASE) to resolution.

Any unacceptable hazardous conditions (UHC) found as a result of these audits will be appropriately documented and logged, and the PRTSRP will be notified as defined by this PTASP. The Chief Safety Officer or his designee will coordinate this effort.

5.3 Accident/Incident Investigation Reporting Section Overview

Section 5.3 describes the process used by Port Authority to perform accident notification, investigation and reporting, including notification thresholds for internal and external organizations, such as the FTA & RTSRP; accident investigation process and procedures;

the process used to develop, implement, and track corrective actions that address investigation findings; reporting to internal and external organizations; and coordination with RTSRP, the oversight agency. Thorough and detailed investigations serve to improve and provide continuous improvements for Port Authority employees, customers and the general public.

The processes described in this section facilitate coordination and define the activities of the various Port Authority departments involved in accident/incident investigation. The processes also enhance the safety of Port Authority patrons and employees, and the protection of Port Authority assets by conducting thorough investigations and determining probable cause(s) with recommendations on how to prevent reoccurrence. If additional information is required, see Port Authority Incident/Accident Investigation Procedures Manual revised July 2019 and Section 3 of this document, Hazard Management Process.

5.4 Accident/Incident Notification Procedures

When notified of an accident/incident, BTO/RTO must determine and act upon the following:

- Determine whether there are any injuries.
- Determine appropriate assistance: notify Port Authority Police to contact appropriate ambulance, fire department, and state/local police departments.
- Determine exact location of accident/incident.
- Dispatch Road Operations supervisor and Port Authority Transit Police and Security Services.
- Have the operator take steps to secure witness "courtesy cards."
- Deploy additional emergency respondents as requested by site team. (Police Department)
- With assistance from Road Operations Supervisor at the scene of the accident, notify and coordinate bus/rail operations as deemed necessary by the situation.

5.4.1 Internal Notification

BTO/RTO upon notification from the site team of the accident classification will begin the following notifications:

Non-Serious Accident (Class I) - Follow normal departmental procedures (i.e., D.O.R., etc.). Send notification via Port Authority's web-based alert system.

State (NTD) Reportable (Class II) - Follow normal departmental procedures (i.e., D.O.R., etc.). Send notification via Port Authority's web-based alert system.

Serious Accident (Class III) - In the event of a serious accident as defined in Port Authority's Incident/Accident Investigation Procedures or other unusual circumstances

that may result in media coverage, it is absolutely vital that designated management personnel be notified as quickly and efficiently as possible. However, this should not be done until all appropriate emergency response personnel have been contacted. Accordingly, the following personnel must be notified via Port Authority’s alerting system or manually by telephone calls in the event of an alerting system failure.

- Director of Road Operations – Bus/Rail
- Director of Rail Service Delivery - Rail
- Chief Safety Officer
- Director of Claims
- Deputy Chief Safety Officer
- Chief Communications Officer

To the extent possible, provide the following information:

- Specific location and type of accident
- Time accident occurred
- Route and direction the bus/LRV was traveling
- Extent of injuries and property damage
- Port Authority and public authorities responding to the scene
- Name and badge number of operators involved
- Bus/LRV/Vehicle number(s).
- Any other relevant information

Documentation Requirements – BTO/RTO must maintain department logs that identifies the date, time, person(s) notified or paged, and time calls were returned.

Table 30 - External Notification

Agency	Requirements
State (NTD) Reportable	An injury requiring transport to hospital or vehicle tow. BTO/RTO makes the necessary internal notifications via the Alert system. Notification is made externally through the Pennsylvania State Police Accident Database via PAAC Police reporting system.

Agency	Requirements
<p>Rail Transit Safety Review Program (RTSRP) Accident/Incident</p>	<p>For those systems and modes covered under the PennDOT RTSRP, the Port Authority must notify the FTA & Rail Transit Safety Review Program within two (2) hours of an accident meeting the below criteria. See section 4.1.3 below for a more detailed explanation of the threshold reporting requirements. For reporting purposes, accident shall be defined as any incident involving a transit vehicle or taking place on property controlled by the Authority where one or more of the following occurs:</p> <ol style="list-style-type: none"> 1. Fatality -A death or suicide confirmed within 30 calendar days of a reportable event. Excludes deaths in or on a transit property that are a result of illness or other natural causes; 2. Serious Injury to a person (See Definitions Section); 3.A Collision involving a rail transit vehicle; (see below table) 4. An Evacuation due to life safety reasons; 5. A Runaway Train; 6. Any Derailment of a rail transit vehicle, at any location, whatever the cause;
<p>National Transportation Safety (NTSB)</p>	<p>The National Transportation Safety Board (NTSB) shall be notified via the National Response Center of the following railroad accidents no later than two (2) hours after an accident that results in:</p> <ul style="list-style-type: none"> • A passenger or employee fatality or serious injury to two or more crew members or passengers requiring admission to a hospital • The evacuation of a passenger train • Damage to a tank car or container resulting in release of hazardous materials or involving evacuation of the general public • A fatality at a grade crossing <p>The NTSB shall be notified via the National Response Center of the following railroad accidents no later than four (4) hours after an accident that results in:</p> <ul style="list-style-type: none"> • Damage of \$150,000 or more for repairs, of the current replacement cost, to railroad and non-railroad property; • Damage of \$25,000 or more to a passenger train and railroad and non-railroad property • The NTSB shall be notified of any bus accident involving a fatality of a passenger no later than two (2) hours after the accident. • Any accident involving a fatality of a passenger.

Agency	Requirements
Public Utility Commission	<p>Shall be notified of any bus accident resulting in a fatality as soon as possible. The bus and/or operator shall not continue in service until released by the Public Utility Commission. The thirty-day fatality rule shall apply.</p> <p>(Act 21 of 2001, amended the Pennsylvania Vehicle Code by adding subsection 4704 (c) (2) which states:</p> <p>In the event a motor carrier vehicle or mass transit vehicle is involved in an accident that causes the death of the vehicle operator or another person, the motor carrier vehicle or mass transit vehicle shall be inspected by a qualified Commonwealth employee, as designated by the department in accordance with subsection (f), before the vehicle or driver will be allowed to continue operation.</p>
Pennsylvania Department of Labor and Industry (Elevator Division)	<p>An owner of an elevator or lifting device or an authorized agent shall submit an accident report to the Department if the elevator or lifting device is involved in an accident resulting in any of the following:</p> <ol style="list-style-type: none"> 1. Fatal injury or hospitalization to a person 2. Damage to the elevator or lifting device rendering it unsafe under § 403.84 relating to unsafe building, structure or equipment) <ul style="list-style-type: none"> • The owner or authorized representative shall submit the accident report on a Department-prescribed form, which must be received by the Department within twenty-four hours of the accident • The Department may order an investigation of the accident • An elevator or lifting device that was involved in a fatal accident may not return to operation until the Department provides approval • An elevator or lifting device involved in a non-fatal accident resulting from mechanical or electrical failure may not return to operation until the Department provides approval

5.4.2 FTA and RTSRP Notification

In order to notify the FTA and RTSRP of an accident which meet the established reporting requirements, the Port Authority must contact the on-call representative for each agency using either email or phone. The Port Authority's preferred method is via email, however the contact information for both methods is listed below.

FTA Phone	FTA Email
202-366-1863	TOC-01@dot.gov

RTSRP Phone	RTSRP Email
267-329-9331	RTSRPnotify@gmail.com

Upon initial report of an accident, the following information should be included, based on the type of incident:

- The name and transit system of the caller
- Type of accident (e.g., which accident criteria prompted the accident report)
- Time and date of the accident
- The location of the accident
- Transit vehicle identifying information, including route, direction, vehicle number, block number, etc.
- Information about any other vehicles involved
- Number of injuries (persons requiring immediate medical attention away from the scene)
- Number of fatalities

Table 31 - Required Reporting Thresholds

RTSRP Reportable Event Type	Investigation Report Required?
Accidents: Reportable to the RTSRP within two (2) hours of event.	
Fatality A death or suicide confirmed within 30 calendar days of a reportable event. Note: Fatalities resulting from illness or other natural causes are excluded.	Yes

RTSRP Reportable Event Type	Investigation Report Required?
<p>Serious Injury Any serious injury sustained by:</p> <ul style="list-style-type: none"> (a) a passenger on a fixed guideway transit vehicle (including any serious injury sustained in the process of boarding or alighting); (b) an individual making contact with a fixed guideway transit vehicle; or (c) an RTA employee in the delivery of fixed guideway transit operations. <p>Serious Injury:</p> <ul style="list-style-type: none"> (a) Requires hospitalization for more than 48 hours, commencing within seven (7) calendar days from the date the injury was received; (b) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (c) Causes severe hemorrhages, nerve, muscle, or tendon damage; (d) Involves any internal organ; or (e) Involves second-or third-degree burns, or any burns affecting more than five percent of the body surface. 	<p>Yes</p>
<p>Collision A collision of any fixed guideway transit vehicle, at any location, at any time that:</p> <ul style="list-style-type: none"> (a) Involves another fixed guideway transit vehicle; (b) Occurs in a grade crossing; (c) Results in substantial damage; or (d) Involves an individual not inside a vehicle. 	<p>Yes</p>
<p>Runaway Vehicle Runaway fixed guideway vehicle on the mainline or in a yard, defined as uncontrolled movement of a train, vehicle, or other equipment regardless of the presence of an operator.</p>	<p>Yes</p>
<p>Derailment Derailment of any vehicle, at any location, at any time, whatever the cause.</p>	<p>Yes</p>

RTSRP Reportable Event Type	Investigation Report Required?
<p>Evacuation Persons withdrawn or removed from rail transit vehicles or facilities for life safety reasons, into the right-of-way, or self-evacuations to a location that may put passengers in imminent danger.</p> <p>Life Safety Reason: A situation such as a fire, the presence of smoke, fuel leak, electrical, or other hazard, that constitutes an imminent danger to passengers, employees, contractors, or other persons. Evacuations for security purposes, including but not limited to arson; suspicious packages and objects; bomb threats; and chemical/biological/nuclear and radiological releases also constitute life safety reasons.</p> <p>Note: Reporting is not required for the offloading of passengers at a <i>platform</i> for a mechanical failure, or transfer of passengers to a rescue train unless there was imminent danger to passengers.</p>	Yes
<p>Unexpected Service Shutdown The closure of all, or a portion of, a rail transit system due to a hazardous condition.</p>	Yes
<p>Other Any safety event for which the RTA notifies the National Response Center (NRC) or the NTSB.</p>	Upon Request
Incidents: Reportable to the RTSRP within 24 hours of event.	
<p>Red Signal Violation Note: The reporting timeframe begins when the violation is confirmed.</p>	Yes
<p>Fire Event</p>	Upon Request
<p>Near-miss Any event that did not result in injury or damage but had the potential to do so, including face-ups and work zone incursions.</p>	Upon Request
<p>Incline Plane Cable or Major Component Failure</p>	Yes
Occurrences: Reportable to the RTSRP monthly. (15th day following the month of the event)	

RTSRP Reportable Event Type	Investigation Report Required?
<p>Revenue Vehicle Door Event, including: Any potentially hazardous door operation on a revenue vehicle, including: (a) Door opening during train movement; (b) Door opening on the wrong side or off-platform; or (c) An un-commanded door opening.</p>	<p>Upon Request</p>
<p>Falls to the Track Persons entering the track area – accidental (known to the RTA).</p>	<p>Upon Request</p>
<p>Trespassing Unauthorized persons entering the track area in subway/tunnel – trespassing (known to the RTA).</p>	<p>Upon Request</p>
<p>System Failure Any signal or control system failure that does not result in fail-safe.</p>	<p>Upon Request</p>
<p>Collision A collision of any fixed guideway transit vehicle not meeting the requirement for reporting as an accident.</p>	<p>Upon Request</p>

5.5 Accident/Incident Investigation Process and Procedures

5.5.1 Process

Due to the technical nature of many Port Authority systems (Incline, LRV's, Signals etc.), a team with a variety of expertise is often required to investigate and document accident cause and analysis. For the purpose of this Plan, three primary teams and their initial responsibilities will be identified. The inclusion of other Port Authority departments/personnel is available at the request of the investigation teams.

5.5.1.1 Accident Investigation Site Team

The Accident Investigation Site Team consisting of Port Authority Police and/or Road Operations personnel will be the primary responder to all Class II and III accidents involving Port Authority vehicles (bus/rail/support) and property. It will be the responsibility of the site team to conduct the initial assessment of the accident, coordinate required emergency response, and begin notification and investigation processes.

5.5.1.2 Accident Investigation Oversight Team

The Accident Investigation Oversight Team consists of the following personnel: Chief Safety Officer (Chairman), Chief of Police, Director of Road Operations, Chief Legal Officer, Chief Operating Officer, and Director of Claims.

The Accident Investigation Oversight Team is responsible for ensuring that all necessary reports and documents are gathered; notifying federal and state agencies when required; initiating any follow-up investigations or interviews; and preparing, writing, and distributing the final, official report. In addition, the Accident Investigation Oversight Team is responsible for ensuring that appropriate accident data is entered into the Hazard Management process. The Accident Investigation Oversight Team is notified and responds to all fatal accidents involving Port Authority rights-of-way. Investigations of serious or fatal accidents on public streets will be at the discretion of the Chairman of the Accident Investigation Oversight Team in consultation with the Director of Claims and/or by request of Senior Staff, specifically; the Chief Executive Officer, Operating Officer or General Counsel.

5.5.1.3 Derailment Committee

The Derailment Committee is responsible for investigating system derailments as defined by this procedure, gathering all necessary documents and writing and distributing of the final report. At a minimum, each report should include: conditions, description of occurrence, investigation, probable cause and recommendations to avoid future occurrence. The derailment committee will consist of the following:

- Chief Safety Officer (Chairman)
- Director of Rail Service Delivery
- Manager of LRT Systems and Power
- Manager of Way
- Assistant Manager of Way
- Manager of Railcar Maintenance
- Project Coordinator (Technical Support/Lead Investigator)
- Engineering Technicians, Technical Support
- Rail Safety Officer (as needed)
- Deputy Chief Safety Officer
- Manager Capital Programs Systems
- Director of Road Operations

5.5.1.4 Training

The following Port Authority employees involved in the accident/incident investigation processes are trained on the contents of this procedure. Department Directors will be responsible to ensure training of appropriate staff.

- All Port Authority police personnel to include dispatchers.
- All Road Operations personnel, including BTO/RTO.
- All System Safety Department/Safety Officers
- Other technical staff as deemed necessary by the Accident Investigation Oversight Team

Select members of the above group will be designated to attend training outside of the Port Authority to be certified and/or remain current in the application of accident investigation techniques. The Federal Transit Administration's Transportation Safety Institute, the Pennsylvania State Police, and other federal, state and local police agencies will be a source of this training. The Accident Investigation Oversight Team members will budget for, coordinate, and ensure attendance of their respective designated personnel.

5.5.2 Accident/Incident Reporting and Documentation

As a result of the on-site investigation, many issues may remain in question, unresolved, or to be completed. This is often the case involving serious accidents and/or those requiring formal reports to the Pennsylvania Rail Transit Safety Review Program (PRTSRP) or the National Transportation Safety Board (NTSB). Accidents requiring state or federal reporting criteria are coordinated and prepared as defined in Port Authority Incident/Accident Investigation Procedures. The degree of follow-up documentation will vary from one accident to the next. The following issues may require documentation as determined by accident severity, employee discipline, or routine procedures as follows:

- Compliance with Operating Rules/Procedures - Operator compliance to Port Authority's rules and procedures can be an issue in all accident investigations. Directors of Service and employee relation representatives are responsible for review of each case. Violations of Pennsylvania Vehicle Code will be at the discretion of Transit Police and Security Services and/or other law enforcement agencies. In any case, accident investigation reports will be provided to division directors upon request.
- Follow-up Interviews - Accidents involving multiple injuries, multiple witnesses, or clarification of statements may require follow-up interviews. Transit Police and Security Services, with assistance from Claims Investigations, if required, will be responsible for this action. Serious accidents involving the Accident

Oversight Team may request follow-up interviews and/or conduct them at its discretion.

- Employee Records - Employee records can provide information regarding past performance, complaints, commendations and general attendance. Training records certify employee knowledge of rules and procedures. Work history such as; workdays, pass days, and schedule for the day in question also provide necessary information to assist with determining possible fatigue. All the above-mentioned items should be reviewed in cases involving serious accidents and other accidents where individual items of employee record come into question.
- Post-Accident Drug & Alcohol Testing - All Port Authority operators will be post-accident tested as defined by Port Authority's Drug & Alcohol Post Accident Testing procedures. The results of such testing are required in the case of NTSB, State and serious accident investigations conducted by the Accident Investigation Oversight Team. As such, the chairman of the Accident Investigation Oversight Team (Chief Safety Officer) will be provided with Post Accident Drug & Alcohol test results, upon request.
- Vehicle/Equipment Inspections - All Port Authority vehicles involved in a serious accident will be impounded until released by the Accident Investigation Oversight Team. This action is necessary for follow-up investigation/testing and required for those accidents involving NTSB/PUC notification.
- Post-Accident in-shop inspections will be conducted with all rail/bus equipment when deemed necessary by the Accident Investigation Oversight Team or by Road Operations, when potential vehicle operation issues are a concern. Vehicle maintenance records are provided to the Accident Investigation Team and are used for accident analysis and reporting.
- Track/Overhead maintenance records are reviewed, in addition to any outside consultant/vendor analysis reports.
- Repair estimates on vehicles involved in the accident are documented in final report for serious accidents.
- Simulation Tests - Simulation tests may be conducted when deemed necessary by the Accident Investigation Oversight Team, but only under controlled situations that ensure the safety of personnel and equipment.

5.5.3 Accident Analysis

In preparation for the final report, investigators attempt to reconstruct the events as follows:

- Who was involved?
- What events occurred?
- How the events happened?
- Identify root cause(s)?

Sequence of events for off-site portion of accident/incident investigations:

- Analysis of off-site data collection
- Documentation of findings
- Determining conclusions
- Determining probable cause and contributing factors
- Entering relevant data into Hazard Resolution process
- Recommendations

5.6 External Specialized Expertise

In the event determining root cause exceeds the capabilities of the internal PAAC investigation team, external specialized expertise may be used to assist with the investigation. These external sources would be dependent on the needs of the investigation team and could include but not limited to local, State or Federal resources to complete the investigation. Incidents involving multiple serious injuries and/or fatalities may require notification and expertise from external agencies such as County Homicide, District Attorney and appropriate state and federal agencies. Investigations requiring specific engineering or other technical expertise may involve Port Authority's Technical Support and/or other external engineering contractors.

5.7 Corrective Actions

Under the Rail Transit Safety Review Program (RTSRP), the Port Authority is required to develop corrective action plans for various deficiencies and hazards identified through on-site safety and security review process, accident or hazard investigations, internal safety or security reviews, etc.

A number of events that prompt corrective action plans are described in the RTSRP's procedures for investigation of accidents, incidents and hazards, and internal safety and security reviews. Either the RTSRP or the Port Authority may identify need for additional corrective action plans, outside of those required in the RTSRP's procedure. If the RTSRP identifies a need for a corrective action plan outside of its published procedures, it will notify the Port Authority in writing.

Corrective action plans prepared for purposes of the RTSRP must be formulated in accordance with this procedure. All timeframes identified in this procedure refer to the Port Authority's development of a corrective action plan. The timeline for actual implementation of the plan will vary according to the area being corrected and is not prescribed in this procedure.

5.7.1 Causes for Initiation of Corrective Action Plan

- **On-Site RTSRP Safety and Security Review:** Upon receipt of the final report for an RTSRP safety or security review and specifically requested by the RTSRP, the Port Authority will have 30 days to develop a corrective action plan to correct identified deficiencies. Issues reported by the RTSRP will be entered into the CAP log and tracked to resolution
- **Accident Investigations:** Regardless of which agency conducts the investigation process (Port Authority or RTSRP directly), the final report must contain findings and recommendations for addressing deficiencies or unsafe conditions identified during the process. The resolution of these deficiencies will be the primary responsibility of the Port Authority, with assistance provided by RTSRP, as may be required. Upon receipt of the final report, the Port Authority will have 30 days to develop a corrective action plan or methodology to correct identified deficiencies.
- **Hazards:** Regardless of which agency conducts the hazard investigation process (Port Authority or RTSRP directly), the hazard investigation must result in CAP's for addressing deficiencies. This includes complaints from personnel as the public pertinent to the hazard. The resolution of these deficiencies will be the primary responsibility of the Port Authority, with assistance provided by RTSRP, as may be required. Upon identification of an unacceptable hazard, the Port Authority will have 30 days to develop a corrective action plan to correct identified deficiencies.
- **Internal Safety and Security Audits:** If the Port Authority finds areas of non-compliance during internal audits of its Public Transportation Agency Safety Plan or Security and Emergency Preparedness Plan, those areas of non-compliance must be remedied by a corrective action.
- **NTSB Investigations:** If the National Transportation Safety Board (NTSB) conducts an investigation at the Port Authority, it may issue a formal report with recommendations to the Port Authority. Should this occur, the Port Authority shall review the recommendations and determine their appropriateness. If the Port Authority determines that a recommendation is appropriate, it will develop a corresponding corrective action plan to address the recommendation. If the Port Authority determines that a particular recommendation is not appropriate, the RTSRP may require it to conduct a supplemental hazard analysis or investigation to support this conclusion. A written record of all analyses of NTSB recommendations shall be maintained.

- **Response to FTA Notifications:** If the Federal Transit Administration (FTA) issues a bulletin that covers the Port Authority, RTSRP may require Port Authority to develop a written record of all analysis of FTA recommendations and develop corresponding corrective action plans to address recommendations.
- **Major Capital Projects:** Preliminary Hazard Analyses, Threat and Vulnerability Assessments, and other studies that Port Authority must conduct of its major capital projects – such as a safety certification – may identify room for improvement. Such deficiencies must be addressed through development of a formal CAP within 30 days after completion of the study.
- **Data/Trend Analysis:** Port Authority must conduct analysis of operational and maintenance data as well as repeated occurrences of hazards and incidents to determine the existence of trends. Upon discovery of a trend, Port Authority must develop a CAP within 30 days.
- **Other:** In the course of performing or reviewing on-site safety and security audits, investigations, annual safety audits, or any other means by which RTSRP becomes aware of a hazard that requires immediate attention, RTSRP will notify the Port Authority in writing of the identified hazard and direct the Port Authority to prepare a corrective action plan. The timeframe for the corrective action plan will be specified in the written notification from RTSRP.

5.7.2 Corrective Action Plan Dispute Resolution

If the Port Authority disagrees with an RTSRP Finding of Compliance with Recommendation, RTSRP may instead authorize the Port Authority to perform a detailed hazard analysis. The hazard analysis is meant to ensure that the deficiency, if unmitigated, does not present an unnecessary safety or security risk to passengers, patrons and personnel, or to the public. The hazard analysis must follow all requirements outlined in the Program Procedures and Standards as well as the Port Authority's Hazard Management chapter of its PTASP.

RTSRP will review the hazard analysis and decide whether to approve it or require revisions. Revisions may be necessary if the analysis does not address the intent of the identified Finding or does not follow hazard analysis process requirements. If the hazard analysis shows that the deficiency presents an unacceptable level of risk when left unmitigated, RTSRP will require the Port Authority to propose a CAP.

5.7.3 Corrective Action Plan Required Components

The Corrective Action Plan will include the following information:

- Date Identified – Date the CAP was generated.
- Source – What generated this CAP (ex. FTA reporting requirement, Accident/Incident, Hazard, etc.)
- Finding – Description of the deficiency or needed improvement.
- Hazard Rating – Rating based upon hazard analysis, if required.
- Corrective Action Plan – CAP must clearly address the precipitating event or hazard and outline proposed mitigations.
- Notes/Comments – RTA/RTSRP will enter progress and feedback on open CAP.
- Responsible Party – Individual/department responsible for CAP.
- CAP Issue Date – Date at which RTA submitted CAP to RTSRP.
- CAP Target Date – Proposed date at which the CAP will be completed.
- Transit Agency Status – Open, Awaiting Verification or Closed.

5.7.4 Corrective Action Plan Schedule and Format

Port Authority will submit and update corrective action plans on an ongoing basis, but within the requirements of the PRTSRP Standards and Procedures. This will be done via the IndustrySafe online CAP system. Port Authority along with the RTSRP will continue to hold quarterly update meetings to review and update progress on open CAP's.

5.7.5 RTSRP Corrective Action Plan Review and Approval

Port Authority must submit each CAP to the RTSRP for approval via the online IndustrySafe website. This applies to CAP's resulting from deficiencies identified both internally and externally. Upon each submission, the RTSRP will review each corrective action plan and evaluate it compared to the identified issue (accident cause, audit finding, hazard, etc.). RTSRP will notify the Port Authority in writing of its acceptance or rejection of the CAP. Depending on the type of corrective action plan and the issue it addresses, the RTSRP will ask the Port Authority for additional supporting information, possibly including documentation, records, field demonstration of a revised process or procedure, or a follow-up audit or review. In most cases, at a minimum, the Port Authority should anticipate collecting and submitting supporting documentation to substantiate the CAP activity and submit it to the RTSRP when verification of implementation is requested for CAP closure.

The RTSRP will approve corrective action plans at three intervals:

1. **On initial submittal:** The RTSRP will review the corrective action plan and looking at its appropriateness to the issue at hand, its timeliness, its practicality, and similar factors, will approve the CAP if appropriate.
2. **When updated or submitted as part of overall CAP log:** The RTSRP will review the corrective action plan, any changes to its scope, timing, or approach, and its progress to date, and will approve the CAP if appropriate. During this

phase, the RTSRP may ask for interim verification evidence or an interim demonstration of progress in the field.

3. **When submitted for verification and requesting a closed status:** The RTSRP requests transit agencies alert the RTSRP of any pertinent updates and requests for closure.

5.7.6 Rejection or Modification of Corrective Action Plans

If RTSRP rejects a proposed CAP, the Port Authority will have 15 calendar days to address noted deficiencies in the plan and submit a revised plan to RTSRP. At its discretion, RTSRP may arrange for a meeting with the Port Authority to discuss the noted deficiencies. One reason for CAP rejection may be an extended timeframe for implementation; Port Authority should identify interim measures to address the deficiency until permanent measures can be completed. Similarly, Port Authority must also ensure that budget constraints do not prevent CAPs from effectively mitigating deficiencies. Such constraints may necessitate the Port Authority to classify the expensive CAP a long-term effort, while less expensive remedial actions occur in the interim. Alternately, a mix of several inexpensive mitigations may be needed in place of a CAP calling for prohibitively costly improvements.

5.7.7 RTSRP Verification and Closure of Corrective Action Plans

For each CAP, the Port Authority proposes to close, the RTSRP will review the Corrective Action Plan's completeness, and will conduct a final verification of documentation, records, or process implementation, as appropriate to the particular issue. These CAPs will be given the "AWA" (Awaiting Approval) status in the CAP's log. The RTSRP may request additional information or action from the Port Authority. RTSRP will conduct this verification through one or more of the following means:

- Field observation
- Photographs provided by the transit agency
- Receipt of new or revised document
- Work order or similar document showing full completion
- Audit of transit agency records

IF RTSRP disagrees with the Port Authority assessment that a CAP is completed, RTSRP may require the Port Authority to either perform a more detailed hazard analysis or transmit a letter to RTSRP documenting the Port Authority assessment that the hazard or issue is sufficiently mitigated. If the Port Authority and RTSRP cannot agree on the satisfactory completion of a CAP, the RTSRP Port Authority and senior PennDOT personnel will work together with Port Authority executives to resolve the issue.

Only the RTSRP has the authority to close a CAP, upon receipt or confirmation of appropriate verification from the Port Authority.

5.8 Ensuring CAP Effectiveness

Once a corrective action plan has been submitted, approved, actions taken, verified and finally closed out by RTSRP, the Port Authority will then implement a process to ensure the corrective measure is addressing the original deficiency and not unintentionally introducing a hazard into the system. This process will involve the Safety Event Review Team (SERT) chaired by the Director of Road Operations and includes members from System Safety, Port Authority Police, Claims, Bus Operations and ATU Local 85. This committee meets on a regular basis and reviews accident data as well as trends. Meeting minutes are taken and distributed following each meeting. The committee will review and ensure any accidents or incidents reported are not related to the original deficiency. This will include reviewing operator reports, police reports and when necessary, field visits to locations in question. The committee will decide as a whole after a period of time, when they feel the corrective action has been successfully implemented and does not introduce and other hazards. This length of review by the committee for each CAP will be based upon each individual situation.

5.9 Accident and Incident Reporting

5.9.1 Internal

As the first responder from Port Authority, Transit Police and Security Services/Road Operations personnel must address the following:

- Coordinate emergency personnel services and call for additional emergency personnel, if necessary.
- Secure and preserve accident scene.
- Determine severity of the accident and report information to the Rail Traffic Operations (RTO) (Rail) or Bus Traffic Operations (Bus) who in turn will initiate the proper notification via Port Authority's alert system.

Table 32 - Accident Classification

For the purpose of this section, the following classifications are for record keeping and statistical purposes only.

Type/Class	Requirement
Non-Serious (Class 1)	An accident not requiring a state report (police), no injuries, no towed vehicles and/or does not meet PennDOT or NTSB notification criteria
State (NTD) Reportable (Class II)	An injury requiring transport to hospital or vehicle tow
Serious Accident (Class III)	Any accident involving serious (life threatening) injury, multiple injuries, fatality or property damage of \$25,000 or greater

Transit Police and Security Services officer will also notify police dispatch of the accident severity. If a serious accident, the police dispatcher will page an on-call accident investigator to respond. If already on duty, he or she will be dispatched to the accident scene and will assume control of the investigation upon arrival.

5.9.2 External

The Port Authority’s Chief Safety Officer or his/her designee is required to notify the FTA, PennDOT, NTSB and/or the PUC Representative after the occurrence of accidents/incidents, and provide the following information:

- The name and transit system of the caller
- Type of accident (e.g. which accident criteria)
- Time and date of the accident
- The location of the accident
- Transit vehicle identifying information, including route, direction, vehicle number, block number, etc.
- Information about any other vehicles involved
- Number of injuries (persons requiring immediate medical attention away from the scene)
- Number of fatalities

5.10 Coordination with Oversight Agency

5.10.1 RTSRP Investigations Responsibilities

The RTSRP investigation responsibilities and PAAC coordination requirements are detailed in the RTSRP Procedures and Standards and are incorporated by reference to the PAAC PTASP.

5.10.2 RTSRP Requests Port Authority System Safety Department to Produce a Formal Report

For certain types of incidents, the RTSRP will request that the System Safety Department to issue a formal written report. These accidents will generally include:

- Accidents with a significant number of injuries
- Accident with fatalities
- Accidents which, upon preliminary report, involve a seemingly significant unmitigated, unidentified, or unquantified hazard
- Accidents involving vehicle, infrastructure, rules, or systems anomalies which have caused or could cause significant loss
- Accidents where a more independent investigation seems necessary

As part of this investigation methodology, the RTSRP may explicitly request a formal System Safety Department report containing all factual, investigative, and corrective action information. Alternately, the RTSRP may request, or the Port Authority may suggest that a system safety department memorandum or other document be used to address specific issues or information deficiencies in operating, maintenance, or engineering reports.

When the RTSRP requests that System Safety Department produce a formal accident investigation report, the following schedule will apply:

- **Preliminary Verbal Report:** Basic information, as defined by procedure, about the reportable accident must be transmitted verbally to the RTSRP during the notification process.
- **Preliminary Written Report:** Port Authority must fax, e-mail, or hand deliver preliminary written information, including any incident investigation summary information, preliminary reports from field personnel, and other available information within (3) business days, unless the Port Authority files a written request for extension.
- **Investigation Status Report:** The RTSRP may, at its discretion, request from the Port Authority a report indicating the status of the investigation, including any significant new reports or report components, and any preliminary investigation findings within ten (10) days of accident.

- **Final Accident Report:** At the conclusion of its investigation, and within 60 days of the accident, the Port Authority System Safety Department must transmit to RTSRP a final accident report. If the Port Authority requires additional time to complete its investigative activities, then it shall request additional time from RTSRP. RTSRP will work with the Port Authority to close open accidents with consideration of needed investigative processes, including (but not limited to) transportation investigations, derailment reports, police investigations, medical examiner reports and other required materials to close an accident investigation.

Upon the completion of the accident investigation process, the System Safety Dept. will submit a draft final accident investigation report to RTSRP. RTSRP will review this report within 10 days and either accept it or require specific additional information or request changes. RTSRP will notify the Port Authority in writing of its approval of the report or of required revisions. If revisions are required, the time frame for revising the report will be determined jointly by RTSRP and the Port Authority, on a case-by-case basis. In reviewing the accident investigation report RTSRP will ensure that the report has:

1. Description of the accident including a clear sequence of events before, during, and after the accident
2. Description of investigation process and methodology
3. Description of the post-accident testing and research conducted
4. Conclusions (including findings and identified causal and contributing factors)
5. Corrective action plan (outlined in "Corrective Action Plans" section)
6. Supporting analysis to defend recommendations in report
7. Recommendations

If the RTSRP approves the report, it will ask the System Safety Department to finalize it and will make the final version the RTSRP's own accident investigation report. In the very rare case that the Port Authority and the RTSRP disagree about the changes and cannot come to a resolution, the RTSRP will utilize the Port Authority's original report with RTSRP addenda or additional investigation as needed to fulfill the accident investigation.

Accident reports may be delivered to RTSRP in a format agreed to by the Program Manager (electronic or hard copy).

5.10.3 Other Oversight Agency Conducts Investigation

Depending on the accident, another oversight agency such as the NTSB may conduct an accident investigation utilizing its own procedures and personnel. The RTSRP will provide to the investigation team any information necessary to conduct the investigation in an effective and efficient fashion. If the incident in question is an

RTSRP-reportable accident, the RTSRP must review the other oversight agency's final report and formally adopt it as its own or prepare its own report for the accident (using its own personnel or authorizing the Port Authority to conduct the investigation).

If the NTSB investigates an accident at the Port Authority, the RTSRP will request that its representative(s) be permitted to participate in the investigation process.

5.10.4 Joint Investigations

In certain cases, the Port Authority and the RTSRP may find it advantageous to conduct a joint accident investigation. The Port Authority and the RTSRP may use the Port Authority's procedures, RTSRP's procedures, or a combination of the two procedures to investigate the accident. The procedures to be used must be established prior to the investigation and agreed upon by both the Port Authority and the RTSRP. If the Port Authority or the RTSRP determine that a joint investigation may be beneficial, the parties will contact each other either formally or informally to initiate the process. A written letter will be used to formalize the scope and approach for the investigation.

5.10.5 Hazard, Incident, and Other Investigations

In certain cases, the RTSRP may determine that a formal investigation is necessary for events occurring at the Port Authority, even though such events may not meet the RTSRP's accident reporting criteria. Most commonly these events will include hazards, significant operational incidents, FTA Safety advisories, whistleblowing complaints and other events that could lead or could have led to significant reportable accidents.

If the RTSRP determines that an investigation into such an occurrence is necessary, it will notify the Port Authority as soon as possible. For incidents having a discrete time of occurrence, this notification will occur within three (3) days. For hazards, the RTSRP will attempt to match this timeframe, however some hazards may only become clear after a level of analysis.

For investigation of hazards and incidents, the RTSRP will typically request that the Port Authority perform an investigation on its behalf. Such investigations will be conducted in accordance with the processes above. To the maximum extent possible, the RTSRP will identify to the Port Authority whether it requires provision of existing incident documentation or new and independent System Safety Department investigation. The RTSRP may modify deadlines as listed in the procedure due to the nature of a particular hazard or incident.

In the case of hazard investigations, the RTSRP will often request that the Port Authority's System Safety Department conduct an investigation on the RTSRP's behalf,

independently of investigatory activities conducted by other Port Authority departments. The RTSRP will typically request that the Port Authority perform a hazard investigation and analysis using its hazard management process as found in its RTSRP-approved PTASP.

5.10.6 RTSRP Conducts Investigation

The RTSRP may elect to conduct an independent accident investigation, or supplemental investigation activities, separate from those of the Port Authority. Such independent RTSRP investigations may be necessary if there is a problem with investigation independence or if the Port authority declines a request to conduct an investigation on the RTSRP's behalf. The RTSRP will notify the Port Authority of any decision to conduct its own formal accident investigation as soon as possible after the decision has been made and will at a minimum issue a written notification of that decision.

At a minimum, RTSRP will conduct an investigation when the integrity of a Port Authority's own investigation could be called into question due to a real or perceived conflict of interest. In such cases, RTSRP will lead a thorough, unbiased inquiry, with cooperation and assistance from Port Authority personnel.

The RTSRP may choose to conduct an investigation of the accident utilizing its own personnel or an authorized contractor. The RTSRP will identify a team of investigation personnel and expects that the Port Authority will provide to the investigation team the resources and information necessary to conduct the investigation in an effective and efficient manner. Such resources may include: operations, maintenance, and inspection records; photographs, interview material, and other evidence documentation; access to accident sites or physical evidence such as railcars or infrastructure that was involved in the accident; and any other information which is pertinent to the investigation.

All RTSRP-authorized accident investigation personnel are granted authority under the Pennsylvania State Safety Oversight program to conduct an investigation and evaluate records, materials, data, analysis, equipment, and other information which is pertinent to the investigation. It is expected that the Port Authority will provide to the RTSRP investigation team the resources and information necessary to conduct the investigation in an effective and efficient fashion. RTSRP will provide notes or other evidence developed by the RTSRP investigation team to appropriate Port Authority personnel.

In some cases, RTSRP will not conduct its own investigation but may decide to designate itself as a party to the Port Authority's full investigation. Under this arrangement, RTSRP, will not produce its own investigation report but may respond

to the accident scene and will participate in Port Authority's investigation activities and meetings.

5.10.7 RTSRP Accident Investigation Procedures

In the event that RTSRP elects to conduct an independent accident investigation, it will do so using APTA's Operating Practices standard RT-S-OP-002-02: Standard for Rail Transit Accident/Incident Investigation as a model. Generally, this process will occur as follows:

- 1.** Upon notification of an accident and when RTSRP determines that it will conduct its own investigation, the Program manager or designee will notify the Port Authority verbally and in writing, and will request any immediate assistance that is needed to facilitate the investigation.
- 2.** If RTSRP plans to conduct any independent on-scene investigation, the program manager may request that the Port Authority hold the scene until RTSRP personnel arrive, complete their investigation, and clear the scene. RTSRP personnel will attempt to be as efficient as possible, and will try to avoid interference with the Port Authority's own investigation, where applicable. If first-hand, independent investigation is not necessary, RTSRP may simply oversee the Port Authority's field investigation process.
- 3.** RTSRP will communicate with the Port Authority safety personnel to arrange any document reviews, equipment or site inspections, interviews, or other reviews that may be necessary after the initial on-scene investigation. As with the on-scene investigation, RTSRP may oversee and adopt follow-up investigation components conducted by Port Authority personnel.
- 4.** RTSRP will, as appropriate, employ any special resources available to it, including transit contractor expertise, etc. If these resources are utilized, their results will also be made available to the Port Authority for use in its accident investigation.
- 5.** RTSRP will assemble collected evidence, data, and information, and will draft an appropriate accident investigation report, based on the following format:
 - Executive Summary
 - Sequence of Events
 - Prior to the accident/incident
 - The accident/incident
 - Subsequent to the accident/incident
 - Findings/analysis
 - Conclusions
 - Probable cause
 - Contributory causes
 - Recommendations

6. RTSRP will issue its draft accident investigation report to the Port Authority within (60) days and will allow ten (10) days for comments. RTSRP will attempt to resolve any conflicts or disputes over draft accident investigation report in a manner that ensures the best possible report.
7. After the comment period and any associated revisions, RTSRP will provide a copy of the final report to the Port Authority and will require the Port Authority to incorporate accident report recommendations into its corrective action plan process, in accordance with RTSRP Standards. Any unaddressed accident report recommendations will be handled via the standard RTSRP review Findings process.

5.11 Drug and Alcohol Program

Port Authority requires a drug-free and alcohol-free workplace. The Authority provides assistance to employees with personal or related problems that could affect job performance. Program policies/procedures are contained in the following documents:

- Employee Assistance Program (administered by the Employee Assistance Program Manager)
- Drug and Alcohol Abuse Program (administered by the Program Manager of Drug and Alcohol)

Policies regarding drug and alcohol abuse are regulated by the following:

- Port Authority's Drug and Alcohol Abuse Program
- Drug-Free Workplace Act of 1988
- FTA's Regulations for Testing and Safety-Sensitive Positions

5.12 Hours of Service (HOS)

Port Authority has established rules and procedures for hours of service in compliance with the Commonwealth of Pennsylvania Department of Transportation Order Number 017 originally issued by the Secretary of Transportation on July 23, 2013 and subsequently amended and extended.

The order establishes requirements for maximum hours on duty, daily rest periods, fatigue training and recordkeeping. On or before October 30, 2013, Port Authority of Allegheny County and other Pennsylvania public transit agencies were required to certify to the Department of Public Transportation that written procedures implementing reporting and training requirements were in place.

See Appendix G of this document for Hours of Service procedure.

On or before January 30, 2014, Port Authority of Allegheny County and other Pennsylvania public agencies certified to the Department of Public Transportation that hours of service requirements were implemented as of January 23, 2014 and amended on July 30, 2019.

As regulations and procedures are finalized and approved, changes will be documented in future Public Transportation Agency Safety Plan revisions.

As of this revision, there is no final rule from the Department of Transportation concerning Hours of Service.

5.13 Fitness for Duty

Port Authority issued a Fitness for Duty policy effective October 1, 2014, revised 1/1/2018 and June 2019 and is attached in Appendix H of this document.

5.14 Procurement Procedures

The purchasing process formally begins with the preparation of a request and its submission to the Purchasing and Materials Management Department. However, planning for contracts and procurement actions begins far in advance of this time. Advance procurement planning includes safety as a significant factor by addressing system safety as well as technical, business, management, and other considerations that will control acquisition actions from inception through completion. Thorough inspection and system testing is performed before equipment or facilities are accepted.

The Purchasing and Materials Management Department works in conjunction with the System Safety Department when purchasing personal protective equipment for employees, controlling chemicals and other hazards in the workplace, mandating safety requirements in specific contracts, and requiring compliance from specific vendors with Port Authority's safety requirements.

5.15 Hazardous Materials Program Section Overview

Section 5.16 describes the Port Authority's Hazardous Materials Program, as a sub element of the SMS Safety Assurance component. The hazardous materials protocols ensure that measures, controls, and assurances are in place to so that safety principles, requirements and representatives are included in Port Authority's hazardous materials and waste disposal procurement process.

5.16 Hazardous Materials Program

It is the responsibility of the Port Authority to minimize and control the generation of hazardous waste and pollutants to protect the environment. All Port Authority activities

must comply with applicable federal, state, and local environmental protection laws. Procedures have been established in order to control hazards associated with procurement, storage, transfer, use, and disposal of hazardous substances. Methods used in this process include product and substance evaluations, procurement procedures, monitoring, testing, inspections, and training. These procedures also address record keeping and reporting requirements. Examples of Port Authority's handling of hazardous materials and waste include a database of Material Safety Data Sheets / Safety Data Sheets and procedures regarding chemical labeling, chemical disposal, and employee notification (i.e., right-to-know). Annual Right-to-Know and Hazardous Waste Awareness Training is conducted by the System Safety.

The Port Authority's Employee Right-to-Know and Hazardous Waste Awareness Manual is incorporated by reference and available for review.

6.0 SAFETY PROMOTION

6.1 Competence, Training, and Safety Communication Section Overview

Safety promotion includes a training and certification program for employees and contractors and incorporates applicable local, state, and federal requirements.

Key safety staff are required by 49 CFR Part 672 to attend required courses to complete Individual Training Programs known as the Public Transportation Safety Certification Training Program. Port Authority key safety staff includes the entire System Safety Department. The Port Authority Chief Safety Officer has completed the required courses and has received certification under this program from the FTA. Other Port Authority employees, including all Safety Officers, are working towards obtaining this certification and as well by attending safety courses offered by the USDOT Transportation Safety Institute (TSI). Status updates are and will be included in Appendix K of this PTASP.

6.2 Training Competence Program

Port Authority uses safety training programs, integrated into operations and maintenance training, as a means of informing employees about hazards associated with their jobs and the appropriate methods for controlling these hazards. The programs promote safety motivating employees to work safely. There are three types of safety training: 1) initial, 2) periodic, and 3) retraining. Training mechanisms include classroom, written and video communications, field exercises, and drills.

There are formal training programs for bus and rail operators and employees involved in maintenance activities. These include training classes, training manuals, and lesson plans. Testing is conducted as necessary to ensure training effectiveness and all safety training is documented. Tests are given to all new rail/bus operators to ensure knowledge. Retraining of operators can occur as a result of accident investigations, long-term

absences, and observations. General refresher training for all operators is scheduled on a three-year cycle. Lesson plans that include policy, rules, and procedures are utilized in this effort. The frequency and amount of training conducted by the various departments depends upon regulatory requirements and the level of hazard associated with the operation. The Chief Safety Officer, Managers of Training, the OSSRC, and the Safety Event Review Team (SERT) work together to ensure that safety elements are included in the curricula and that safety information is disseminated to affected employees. More specifically, this effort includes:

- Identifying requirements for all Port Authority training as it impacts safety. This encompasses initial and refresher training related to procedures and equipment including manufacturers training and retraining requirements identified as a result of accident investigations.
- Reviewing all training programs for safety adequacy.
- Assessing the effectiveness of training courses and on-the-job experience by the conduct of emergency scenarios, drills, audits, and evaluations. Evaluations may be by on-the-job performance, statistical trends, public perception, etc.
- Providing specific training with specialized curricula to rail operators, mechanics, and emergency response personnel with the introduction of new vehicle technologies.

6.2.1 Safety-Related Work Training

To ensure that all operations and maintenance personnel performing safety-related work are properly trained, qualified, and certified, the Port Authority has established the following categorized safety-related training programs. All training programs are incorporated by reference and many programs include retraining requirements as well. The following sections are an overview of the programs.

Table 33 - Safety Related Work Training Categories

Safety-Related Work Training Categories
Bus System Operations Training
Bus Equipment Maintenance Training
Roadway Worker Training (Busways and Light Rail System)
Rail System Operations Training
Shifter/Repairman Training
Rail Technician Training (LRV)
Road Operations Supervisor Training
Maintenance Inspection Training
Electrical, Signal, Power, and Substation Training
Track service, Heavy Equipment Maintainer-Operator
System Pick Retraining

Safety-Related Work Training Categories
Post-Accident Retraining
Operator Extended Absence Training
Movement Director Training
Standard Operating Procedures (SOP) and Rulebook Training
System Safety - Employee and Contractor Safety Training

In the event that a contractor or contractor employee is required to work on Port Authority rail system under operating conditions, training requirements will be spelled out in the contract. Port Authority rules and procedures will be applied without exception to all members of the contractor's work force affected. Contractors must be instructed on procedures, know the procedures and follow the procedures.

6.2.2 Descriptions of Training Programs

6.2.2.1 Bus System Training

All operators must qualify as a Transit Coach Operator prior to operating on the rails. A training program for new hires requires the completion of a ten-week course and includes the Commercial Drivers' License (CDL) Certification.

Table 34 - Transit Coach Operator and CDL Training Topics

Training Topics
Orientation
Bus/Coach Familiarization
Port Authority Cards and Schedules
Bus Operation and Revenue Service Routes
Fares and Farebox
Passenger Relations
Accident Reports
Service Stops
Emergency Training
Americans with Disabilities Act (ADA)
Route Qualification
Performance Code
BTO/RTO Orientation
Two-way Radio Operation
Security Awareness
Fatigue Awareness
Hours of Service Requirements

Bus Equipment Maintenance Training

Activities include examining interrelationships of equipment, maintenance practices, and the users of the equipment. Training is used to instruct Bus Equipment Maintenance personnel in hazard control methods. Failure analysis is performed, and failure trends are identified and reported.

6.2.2.2 Rail System Training

The rail operator training program consists of the following elements:

Table 35 - Rail Operator Training Program

Program Element	Requirement
New Student Training	22 days LRV Ops 24 days (with Monongahela Incline training)
Operator Absence (30 days)	Test trip (in non-revenue service) with instructor
Operator Extended Absence (more than 30 days)	May receive 1-3 days retraining (at discretion of the instructor)
System Pick Retraining – (operator was rail operator, transferred to bus division and is now returning to the rails)	1 day (if one year or less) 2 days (if one to two years) 3 days (if two to three years) 4 days (if three to four years) 5 days (if more than four years) Additional days can be added at the discretion of the instruction
Post-Accident Retraining	1 day
Retraining for a change in system or equipment	TBD – Training activities & duration will vary based on complexity of new systems & employee classification.

Other employees in Rail Operations and Maintenance who need to operate LRV's as part of their job receive training as described below:

Program Element	Requirement
Service Person Training	4 days (yard only)
Rail Tech Training	4 days with previous service person training, 8 days with no previous training.
Road Operations Supervisor	10 days with no previous rail training, 5 days with previous rail training.

Program Element	Requirement
Retraining for a change in system or equipment	TBD – Training activities & duration will vary based on complexity of new systems & employee classification.

Table 36 - Other Rail System Training Courses and Requirements

Course	Requirement(s)
Vehicle Maintenance Specialist	Required to attend an intensive training program conducted by a local vocational school or Rail/Bus Maintenance Training Department. Training documentation is maintained, and training activities are reviewed and monitored by management and coordinators.
Way Supervisor	Must successfully complete all 12 modules of the Track Maintenance Training Program within the first 12 months of acquiring the position.
Heavy Equipment Maintainer-Operator	Required to attend extensive training on various Hi-Rail equipment, heavy equipment, and power tools conducted by in-house instructors and third-party manufacturers. Must also obtain a class A CDL license, EPA certifications, and welding proficiencies.
Facilities Wirepersons	Facilities wirepersons receive equipment and job training from Port Authority MAP instructors.
Facilities Maintainers	Facilities maintainers receive training from Heavy Equipment Instructors and qualified Maintainers.
Signal, Power, and Substation groups	Signal & Substation groups must attend and pass 18 to 24-month apprenticeship training conducted by Port Authority MAP Training Specialists. Power/overhead employees are trained in an internal Power Department program.
Pre-qualification Tests	ALL MAP job positions require a pre-qualification job aptitude test before the employee is awarded a job. Only then does formal training begin.
Retraining for a change in system or equipment	TBD – Training activities & duration will vary based on complexity of new systems & employee classification.
Maintenance Inspection Training Program (MITP) for Light Rail Vehicles	The MITP Program includes instruction to ensure that the individual performing the inspection has been properly trained.

Course	Requirement(s)
Rail Maintenance Shifter/Rail Technicians Special Training – for Operating LRV’s in yard, and/or on main line	Special training for experienced maintenance personnel who are required to road test cars on the main line in a designated area.
New Road Operations Supervisors	Required to attend an intensive training program designed specifically for new Road Ops Supervisors with no prior rail operating experience before assuming responsibilities for handling incidents and emergencies in field.
Movement Director Training Program	Complete specialized training before assuming active responsibility for directing rail operations under normal and emergency conditions at the RTO Control Center.
Roadway Worker Protection Training Program	All employees and contractors who work on or about the rail system must complete this training from System Safety before accessing the Right of Way.

6.2.3 Roadway Worker Protection Program

Port Authority employees and contractors working within or adjacent to Port Authority Right of Way, both bus and rail, must be protected from the hazards associated with both the light rail transit and busway systems. Employees and contractors will be monitored to ensure compliance with Port Authority’s established rules and procedures for track and busway safety. The Roadway Worker Protection Program Training Program is incorporated by reference.

The Port Authority Project Manager has the authority to issue stop work orders to any contractor or subcontractor who does not take or refuses to take prompt, corrective action when given notice of noncompliance with any of the applicable safety requirements. If imminent danger exists, the Port Authority may issue a stop work order.

6.2.4 Training Records

All training, including contractor training, system wide, is logged and maintained in PeopleSoft and other training data base systems. Divisions and Instruction may also use individual employee files maintained at their assigned division. This is the responsibility of the Operations/Maintenance Training instructors and Division Management. Training records will be maintained for the tenure of each employee while in the employ of Port Authority.

6.2.5 Compliance with Training and Certification Program

Proficiency in any of the above courses is determined through testing. Tests are given specifically to the type of training. Not all the above courses require all tests to be completed. Tests that may be given include a switch test, signal test, and procedures test (troubleshooting). In order to successfully pass the course, a score of 100% on the signal test and at least 80% on others must be obtained.

6.3 Employee and Contractor Safety Program

6.3.1 Occupational Safety and Health

This function entails developing and implementing employee illness and injury prevention measures which comply with applicable federal, state, and local regulatory requirements. The Chief Safety Officer is responsible for developing and documenting this program, facilitating implementation by other departments, and monitoring compliance. Issues addressed include:

- Respiratory protection, hearing conservation, and personal protective equipment requirements
- Methods for identifying and evaluating workplace hazards
- Procedures for investigating occupational injuries and illnesses and correcting unsafe or unhealthy conditions in a timely manner;
- Occupational health and safety training for employees;
- Communication methods such as safety meetings, posted notices, suggesting programs, and labor/management safety and health committees;
- Verification of compliance with safety and health practices including recognition and discipline; and
- Documentation of compliance with program training and inspection requirements.

6.3.1.1 Safety Policy and Guidelines Manuals

Table 37 - Safety Policy and Guidelines Manuals

<u>Topics</u>
General Safety Rules
Housekeeping
Lifting / Lowering
Office Safety
Ladder Safety
Scaffolding
Machine Guarding

<u>Topics</u>
Slings
Fork Truck Operations
Fire Safety
Hot Work Permit Procedure
Red Tag Permit System
Handling and Storage of Compressed Gas
Personal Protective Equipment (PPE)
Eye Protection
Prescription Safety Eyeglass Program
Fall Protection
Lockout / Tagout
Basic Electrical Safety
Confined Space Entry Program
Right-to-Know – PA Title 34 Part XIII
Safety Committee
Tagging of Unsafe Equipment (Warning Tag)
Hazardous Material Transport Program
Toolbox Talk Procedures/Guidelines
Chemical Products Control Program
Trenching and Shoring

6.3.1.2 Safety Program Requirements

All affected departments will work with the Purchasing and Materials Management staff to ensure that, as appropriate, contractors and suppliers meet Port Authority's safety requirements, in the contracts, terms and conditions prior to commencing work. Department personnel in charge of each contract are required to monitor the safety performance of the contractor's/supplier's staff (e.g., wearing appropriate safety equipment, adhering to facility speed limits) and inform the Project Manager whenever deviations from established procedures occur or are needed. The Project Manager will coordinate the contractor's/supplier's safety activity with the Chief Safety Officer and the Purchasing and Materials Management Department. A safety representative participates on all new construction/modification committees formed and conducts joint inspections and safety meetings with contractors.

All Port Authority employees required to work within or adjacent to active Port Authority rail system right-of-way (ROW) are required to follow Port Authority rules and procedures.

All Port Authority construction packages must include specific Port Authority right-of-way (ROW) safety training requirements for contractors working within or

adjacent to active Port Authority rail system ROW. The contractors have primary responsibility for developing and implementing their safety programs. The Port Authority reviews the contractor's programs.

6.3.2 Compliance with Safety Program

Methods of communicating safety information to Port Authority employees include posting and/or distribution of bulletins, Division Information Messaging Monitors (DIMM), department notices, and memoranda. Such information is posted at a central location in each department easily accessible to employees. Other communication methods include posters, signs, brochures, training materials, rule books, and operating procedures.

Port Authority's comprehensive employee safety program includes the following elements:

- Semi-Annual Facility safety inspections with written reports and follow-up responses;
- Periodic employee AED Awareness training;
- Monthly safety committee meetings;
- Retraining/Special request employee safety training programs;
- Local fire department tours, and fire life/safety training;
- Safety posters;
- Annual worker right-to-know programs;
- Periodic insurance carrier/broker inspections;
- New hire Safety Orientation and training programs.

6.3.3 Employee Safety Reporting

At Port Authority, our objective is to cultivate and foster a safety culture in which employees and customers are comfortable and encouraged to bring safety concerns to the attention of management. With this Public Transit Agency Safety Plan and working toward the goal of a robust Safety Management System approach, Port Authority continues its long tradition of encouraging employee safety reporting.

Methods used in the past have included encouraging employees to report to Supervisors, Management, Division Safety Committee Members, Board Persons, ATU Local 85 Leadership and directly to the System Safety Department. The encouragement to use these methods continues and we have also added email and on-network reporting systems to allow additional methods of reporting near misses, hazards and other minor occurrences. Contractors are urged to report hazards and near misses to their Supervisors, Superintendents, and to Port Authority Management as well as any Consultant Resident Construction Managers.

Safety events that include injuries or property damage must be reported as accidents using the prescribed methods already in place. Safe transit operations is Port Authority's most important commitment to our employees, customers, and the public that we serve. To ensure this commitment, it is important that we have reporting of all incidents and occurrences that compromise the real and potential safety of our operations. There is a distinct need to learn from accidents and incidents through safety investigation so as to take appropriate action to prevent the repetition of such events.

Port Authority System Safety, with the assistance of other management will then review, investigate, and provide advice and assistance to Operations in resolving credible reported items. It is important that apparently minor occurrences are investigated in order to prevent catalysts for major accidents. Safety analysis and investigation is a necessary and effective means of improving safety, by learning the appropriate lessons from safety occurrences and adopting preventative actions. It is therefore important that an environment exists where occurrences are reported, the necessary processes are in place for investigation and for the development of preventative actions, to prevent future reoccurrence and possibly harm to others.

The email safety reporting allows any employee or contractor to utilize either of two email addresses to notify the System Safety Department of hazards or safety related issues. The addresses are: 1) safetyreport@portauthority.org 2) hazardreport@portauthority.org These email addresses forward the information provided directly to the Chief and Deputy Chief Safety Officers. Any unacceptable hazardous condition(s) must be mitigated, and the Chief and Deputy Chief Safety Officers notified immediately.

The on-network safety reporting enables employees to report hazards, safety-related issues, concerns, and incidents through a process in which they can provide recommended solutions and ideas for safety mitigation or improvement. The process begins when an employee files a report to raise a safety issue through the on-network reporting system. This can be filed *anonymously*, or with contact information provided by the employee. The safety reporting program also includes non-punitive measures for employees to further encourage reports of hazards and incidents. The purpose for this is as follows:

6.3.3.1 Non-Punitive Reporting – Purpose

- Reduce resistance to the SMS program;
- Builds confidence in the SMS processes
- Help engender trust between front-line employees and managers
- Explain which actions are not immune from disciplinary actions
- Offer a clear understanding of what to expect when employees submit hazard reports.

6.3.3.2 Non-Punitive Reporting Statement

No person will be penalized or retaliated against for bringing safety issues to the attention of management in a timely manner.

This policy does not include protections against occurrences of:

- Criminal activity,
- Substance abuse,
- Reckless noncompliance,
- Gross negligence,
- Willful actions,
- Sabotage, etc., and
- Falsely claiming or reporting an alleged safety issue post-accident or incident in an effort to avoid discipline for the subject accident or incident.

In addition, no protections are included for reporting events of which Port Authority would already have had knowledge through other means or methods that are a part of transit operations normal procedures, including data transmitting, recording, and monitoring equipment.

We ask that each employee communicate any information that may affect the integrity of light rail and bus transit safety. Employees are assured that this communication will not result in reprisal, thus allowing a timely, uninhibited flow of information to occur.

All employees are urged to use this program to aid Port Authority's safety culture in providing our customers and employees with the highest level of transit safety and service.

6.3.4 Public and Customer Safety Reporting

The public and customers using the system are encouraged to transmit safety concerns and hazards to Port Authority by contacting the Customer Service Department. Customer Service is typically contacted by telephone using the broadly published contact number. Customer Service forwards safety related concerns that they receive to the respective Operations Divisions, with a copy to System Safety. The Operations Divisions corrects any safety issue that is within their scope of ability and informs System Safety of their action and resolution. System Safety should be contacted if additional assistance is needed. Further, Port Authority's Communications Department also sometimes receives safety related issues from the public and riders through various social media sites that Port Authority operates. Those concerns are relayed to System Safety by the Communications Department.

6.4 Safety Communication

6.4.1 Safety Communication Methodology

Port Authority safety communication is accomplished by various means including digitally via training, Division Information Messaging Monitors (DIMM), Crossroads PAAC internal network, TransPort Employee Communication Newsletter, email, bulletins, employee safety reporting, directives, safety committee meetings, posters, and meetings throughout the organization.

6.4.2 Safety Communication Social Media

Port Authority is currently utilizing social media including Twitter and Facebook. The Port Authority is also reviewing other options for safety communications using technology such as creating dashboard defined widgets to keep staff informed of safety issues, incident trending, safety events and related informed to stay up to date on activities positive and otherwise throughout the organization.

APPENDIX A

SMS SAFETY MANAGEMENT POLICY STATEMENT

It is the mission and policy of the Port Authority of Allegheny County (PAAC) to provide safe and reliable transportation service for the general public, to provide safe and healthful working conditions for Port Authority employees, and to comply with all applicable laws and regulations.

PAAC is fully committed to a Safety Management System (SMS) and to providing its customers with safe service, and to maintain a strong safety culture and working environment that ensures the safety and health of its employees and protects the environment.

The management of safety is a major consideration in every stage of all PAAC activities. PAAC is committed to implementing, maintaining and continually improving processes to ensure that all its operational and maintenance activities are supported by reasonable and appropriate allocation of organizational resources and aimed at achieving the highest level of transit safety performance.

All employees, contractors, and consultants are responsible and accountable for the delivery of this highest level of safety performance, starting with PAAC Board approval of this Safety Management Policy Statement, PAAC's Public Transit Agency Safety Plan (PTASP) and designation of PAAC's Chief Executive Officer (CEO) as the agency's designated Accountable Executive.

PAAC's commitment is to:

- Support its SMS by providing appropriate resources to support an organizational culture that fosters safe operational practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as that given to the other critical management systems of PAAC.

To implement PAAC's Public Transportation Agency Safety Plan, PAAC's employees, contractors, and consultants must focus on the following Safety Management System components:

- PAAC's Safety Management Policy Statement;
- PAAC's Safety Risk Management process for identifying hazards and analyzing, assessing, and mitigating safety risk to the lowest reasonable level;
- Safety Assurance to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that PAAC meets or exceeds its safety objectives through the collection, analysis, assessment, and trending of information; and

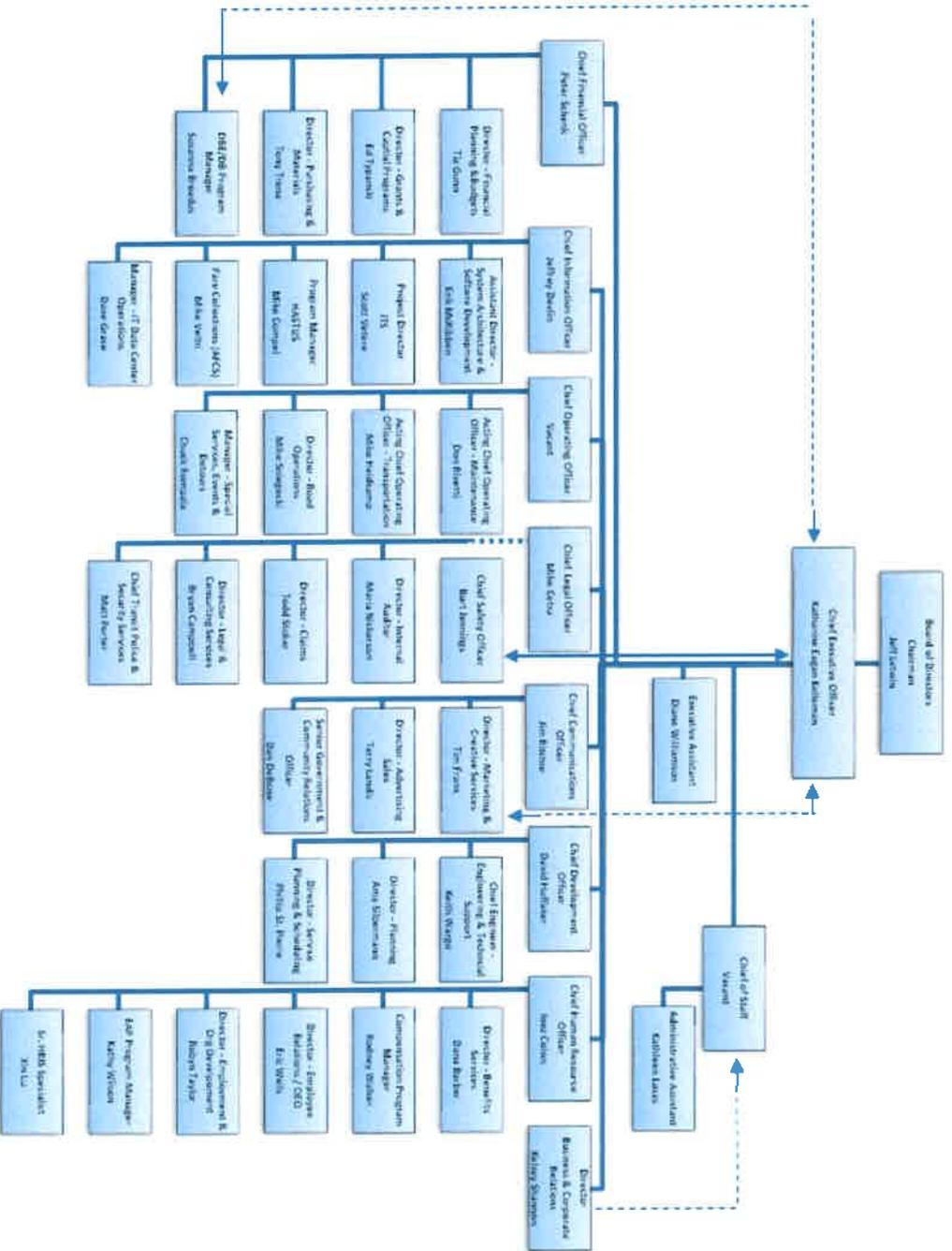
- Safety Promotion to support SMS as applied to PAAC, including internal and external safety communications and management and employee training.

PAAC's CEO has appointed the Chief Safety Officer as the agency's designated SMS Executive, with primary responsibility for maintaining and updating PAAC's PTASP on an ongoing basis. All PAAC employees, contractors and consultants are responsible for working safely and assuring that PAAC's service is delivered safely for all who come in contact with it.

Katharine Kelleman
Chief Executive Officer
July 2020

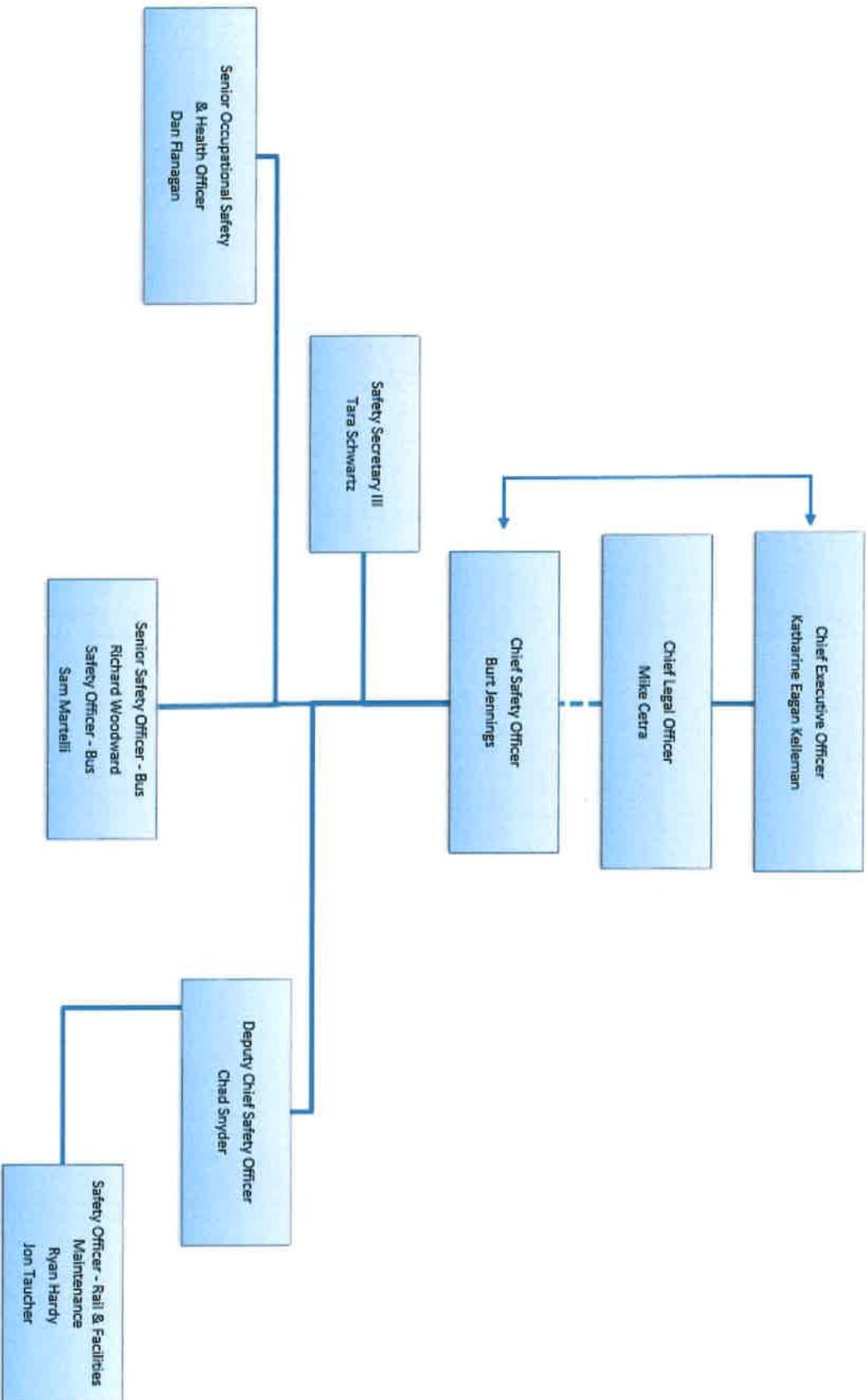
APPENDIX B
ORGANIZATION CHARTS

PORT AUTHORITY OF ALLEGHENY COUNTY



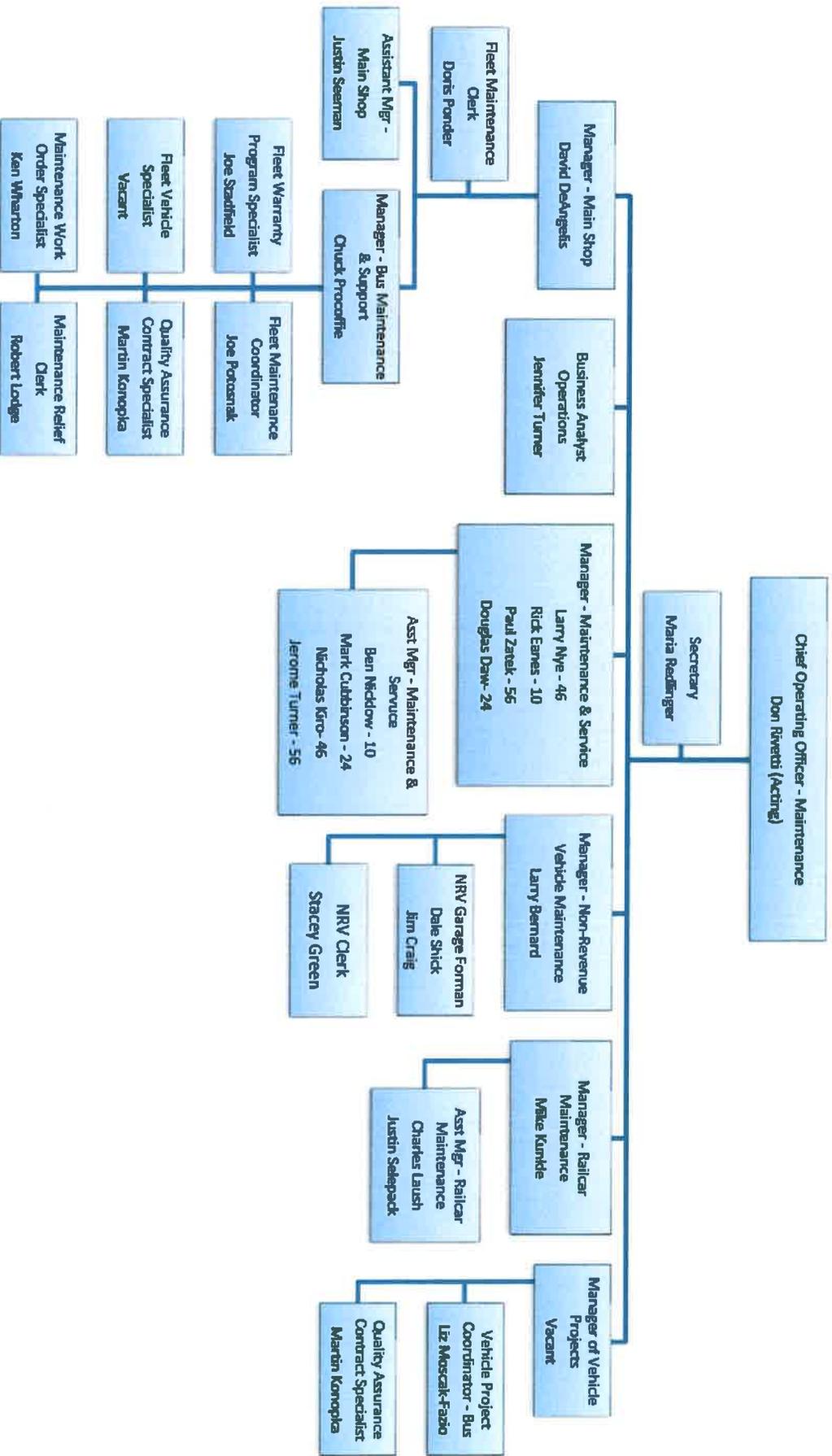
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY SYSTEM SAFETY



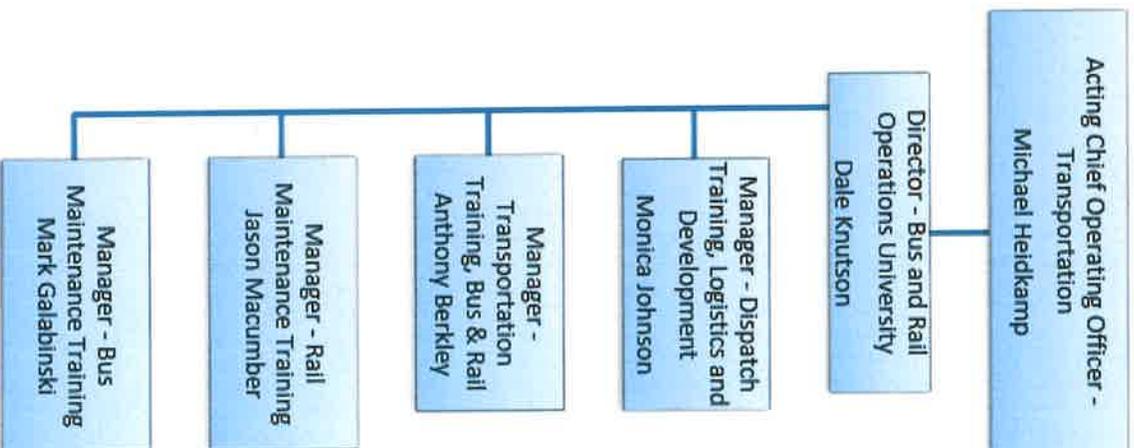
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY BUS & RAILCAR MAINTENANCE



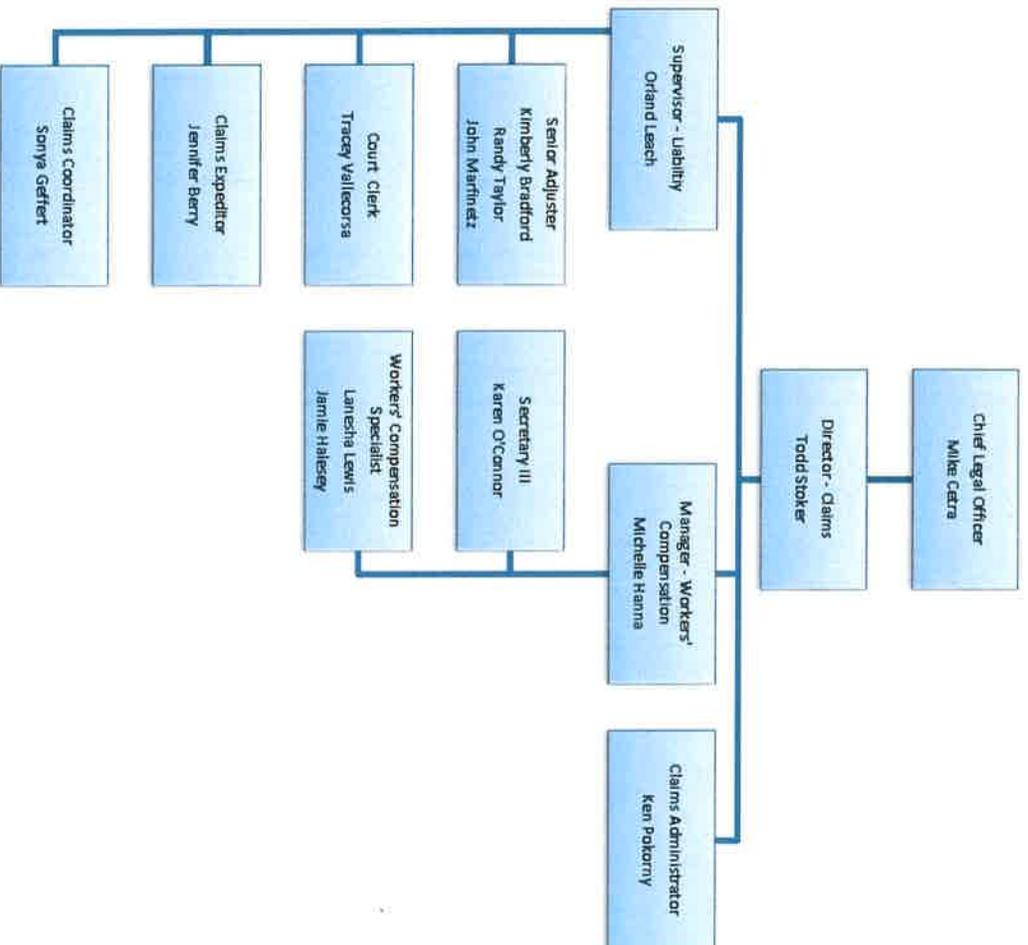
Effective May 2020

PORT AUTHORITY OF ALLEGHENY COUNTY BUS AND RAIL OPERATIONS UNIVERSITY



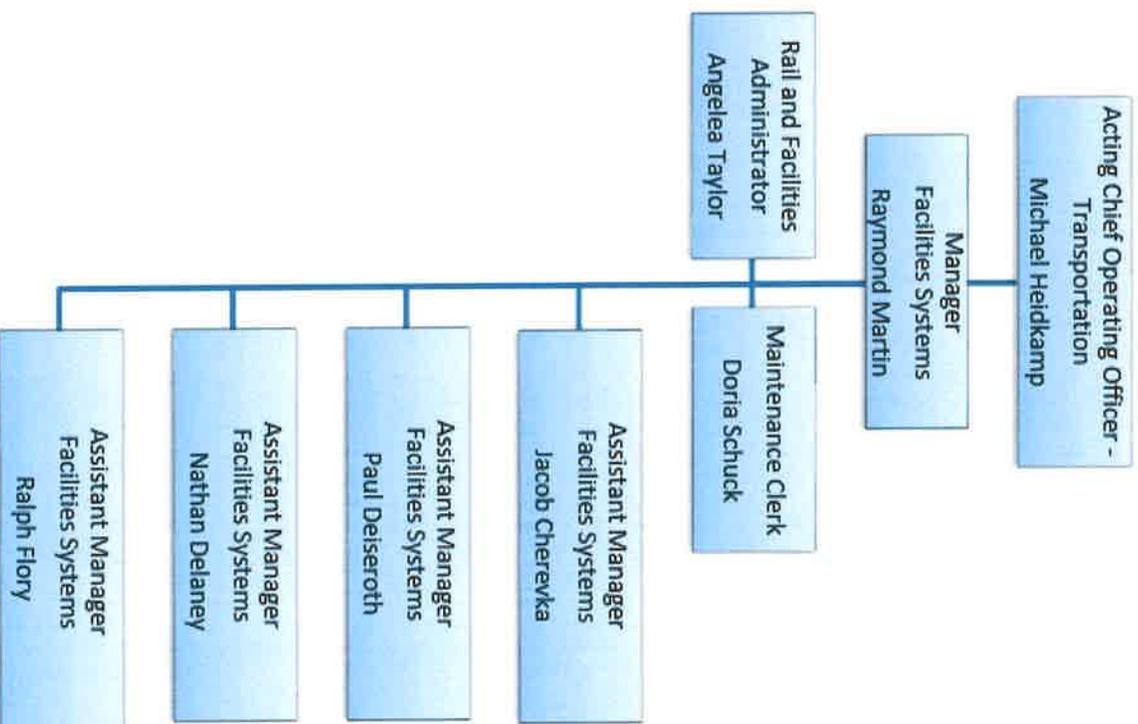
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY CLAIMS DEPARTMENT



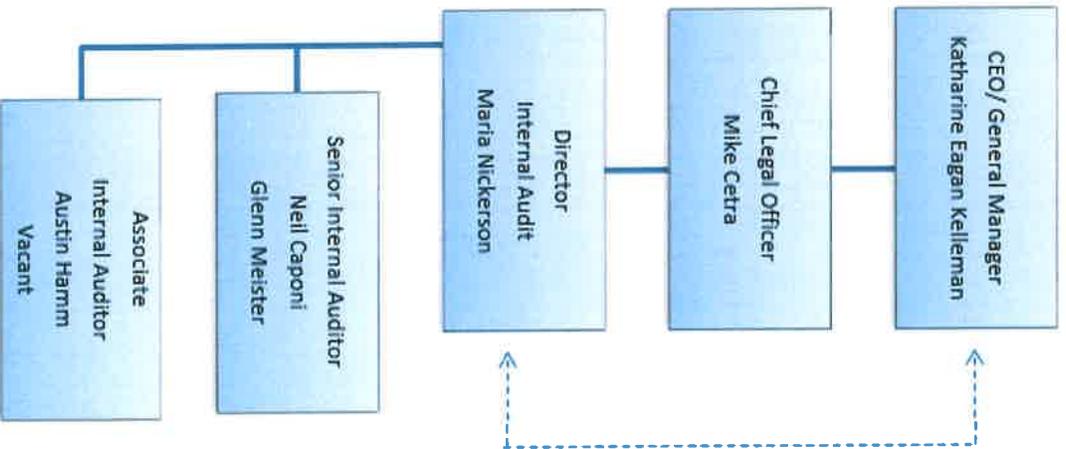
Effective January 2020

PORT AUTHORITY OF ALLEGHENY COUNTY FACILITIES SYSTEMS MAINTENANCE



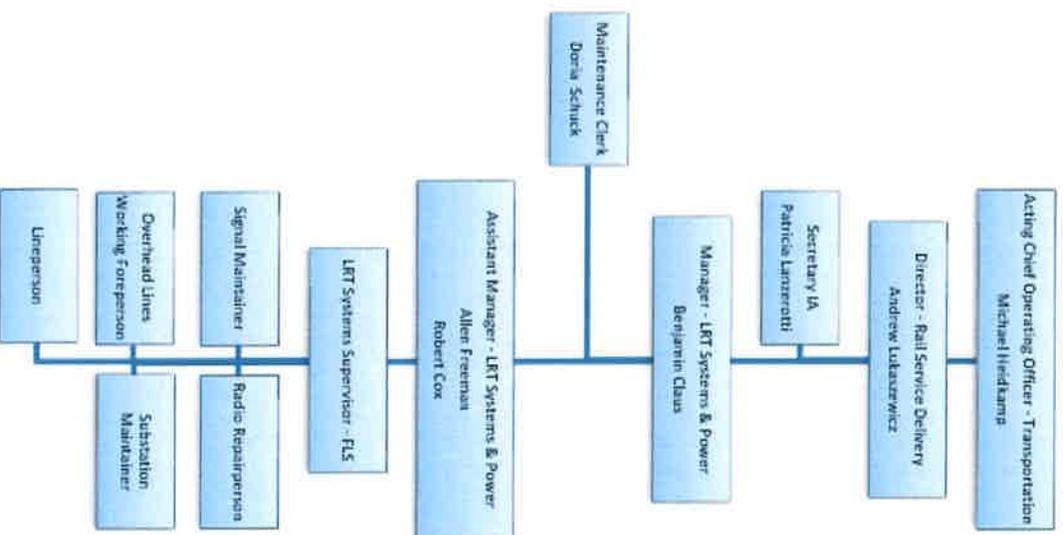
Effective April 2020

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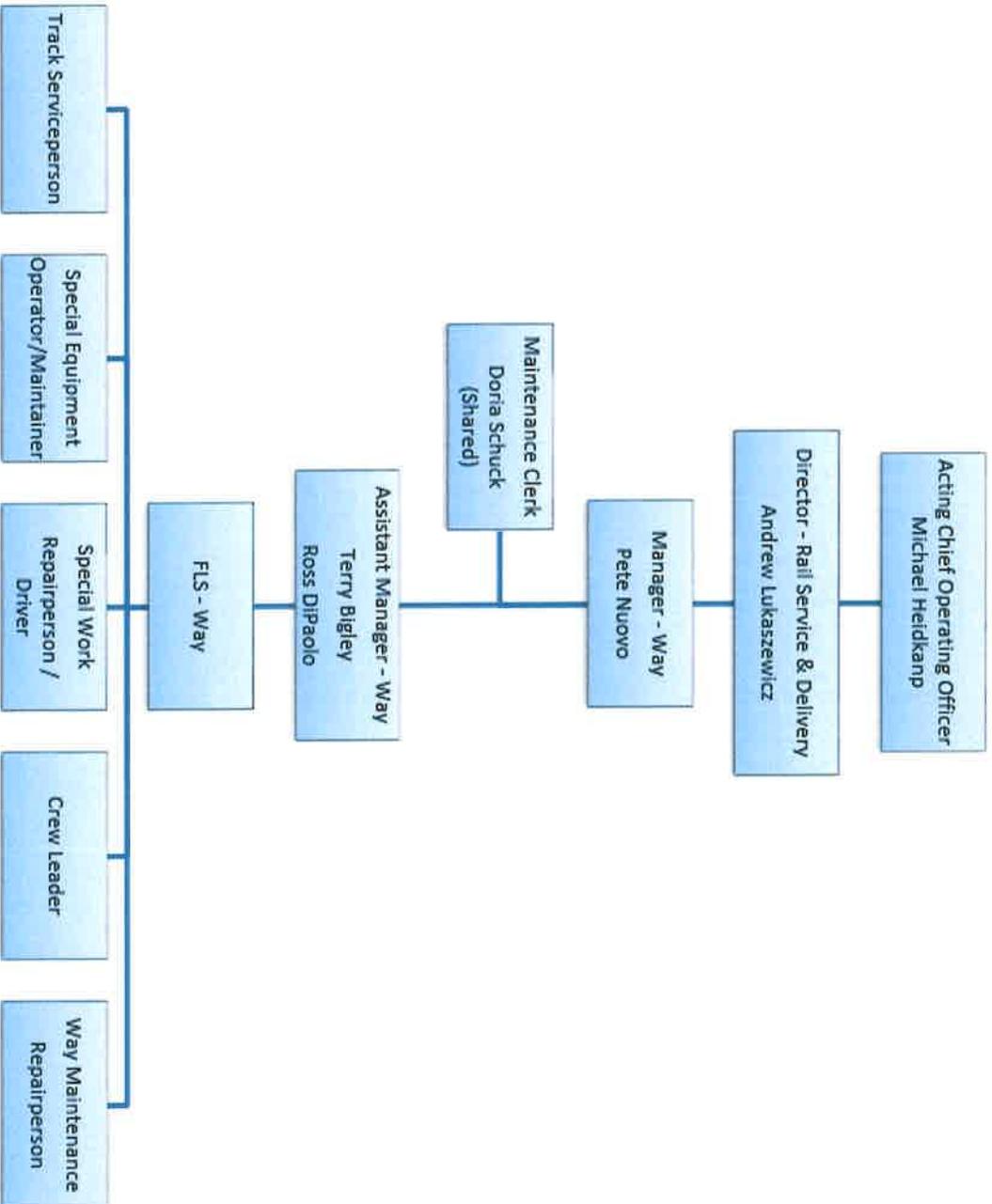
Effective January 2020

PORT AUTHORITY OF ALLEGHENY COUNTY LRT SYSTEMS & POWER



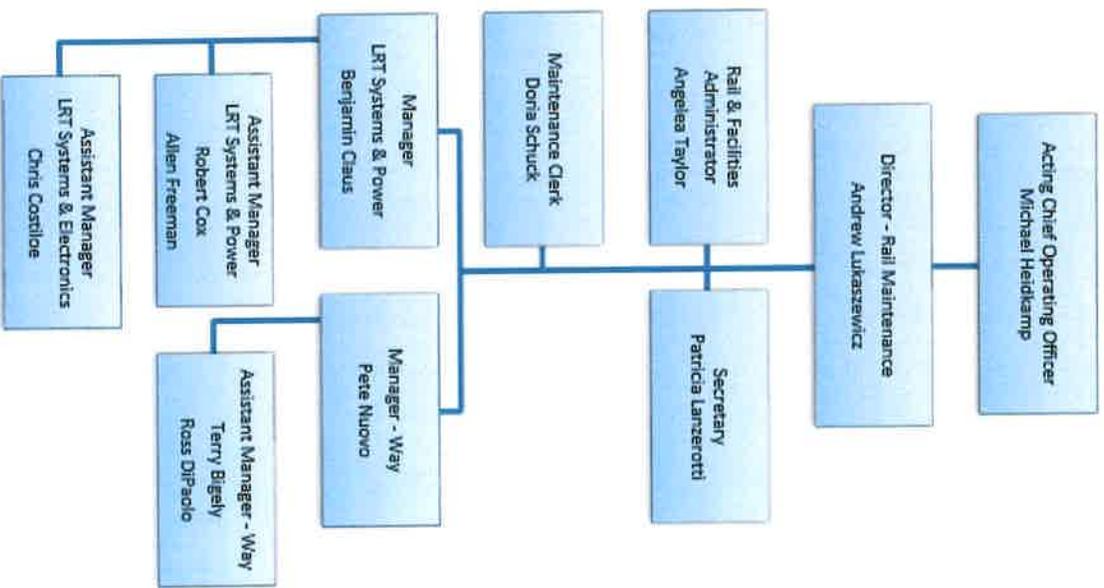
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY WAY



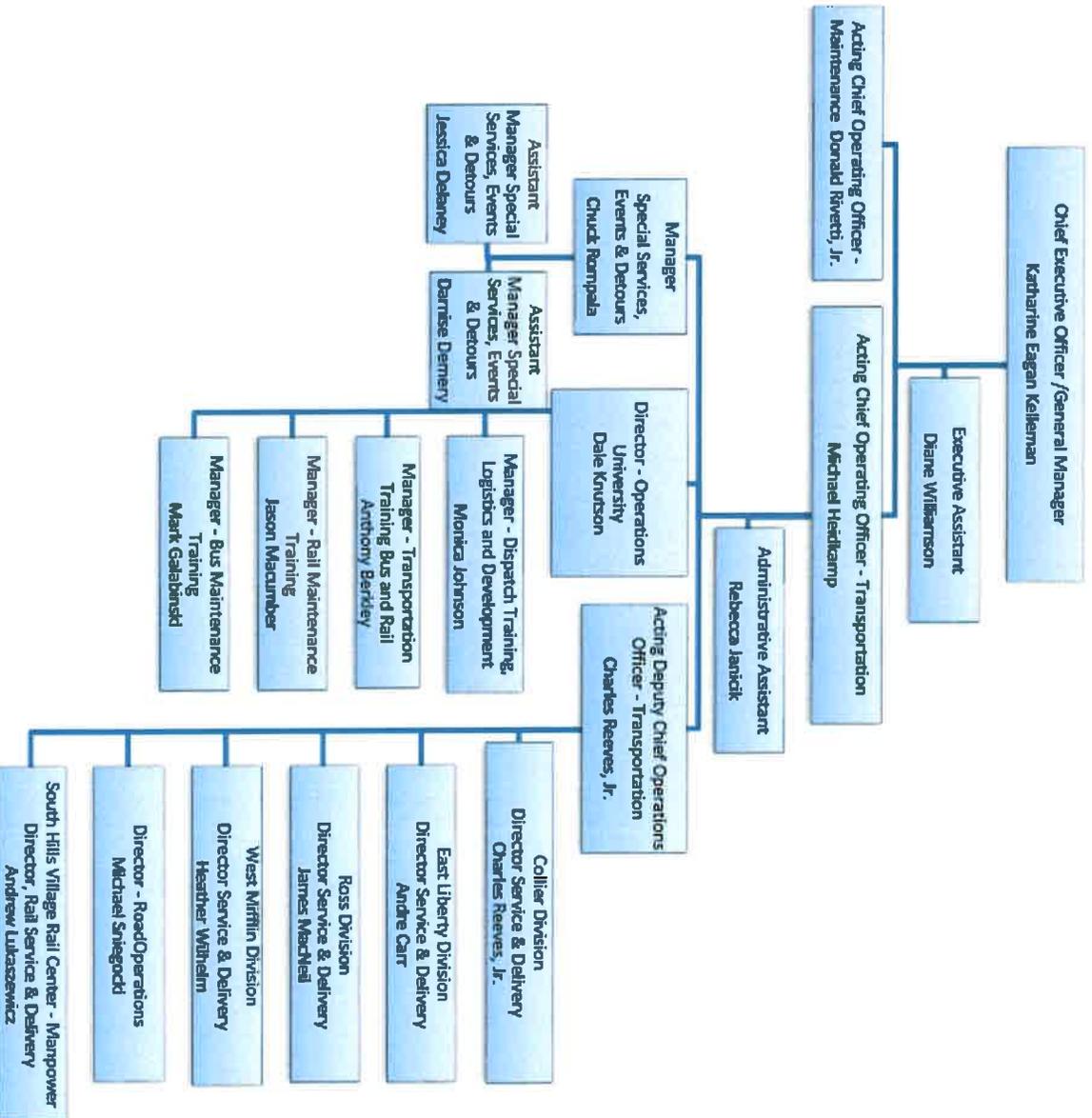
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY RAIL MAINTENANCE



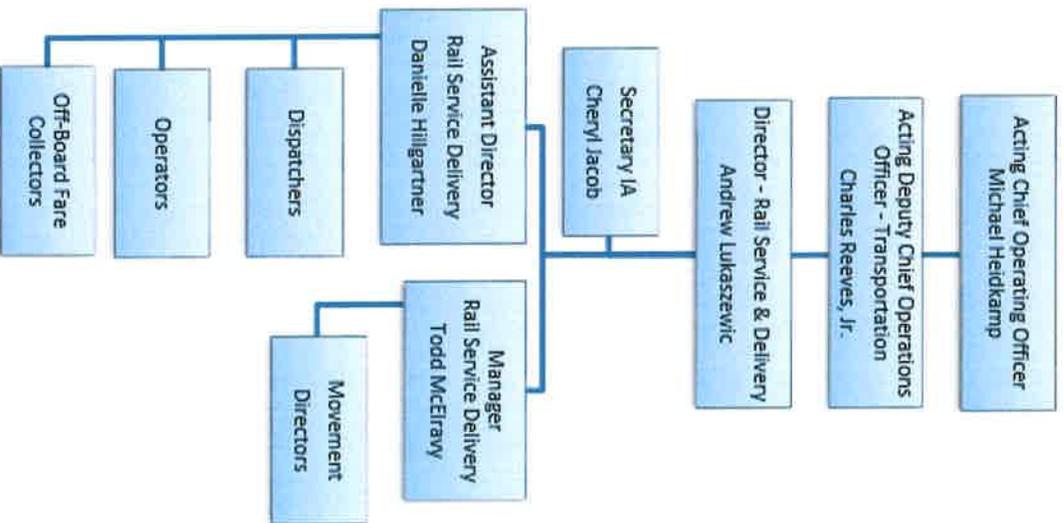
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY OPERATIONS DIVISION



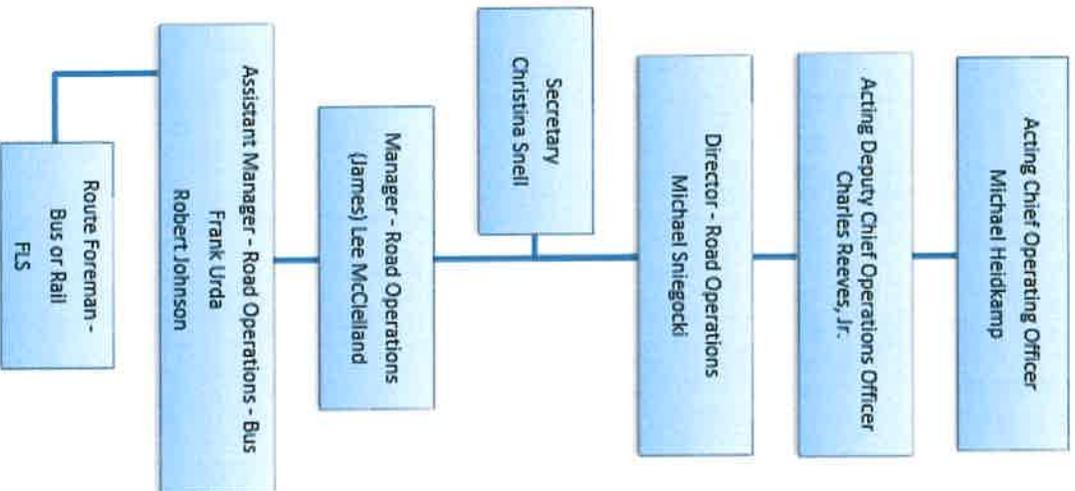
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY RAIL SERVICE DELIVERY



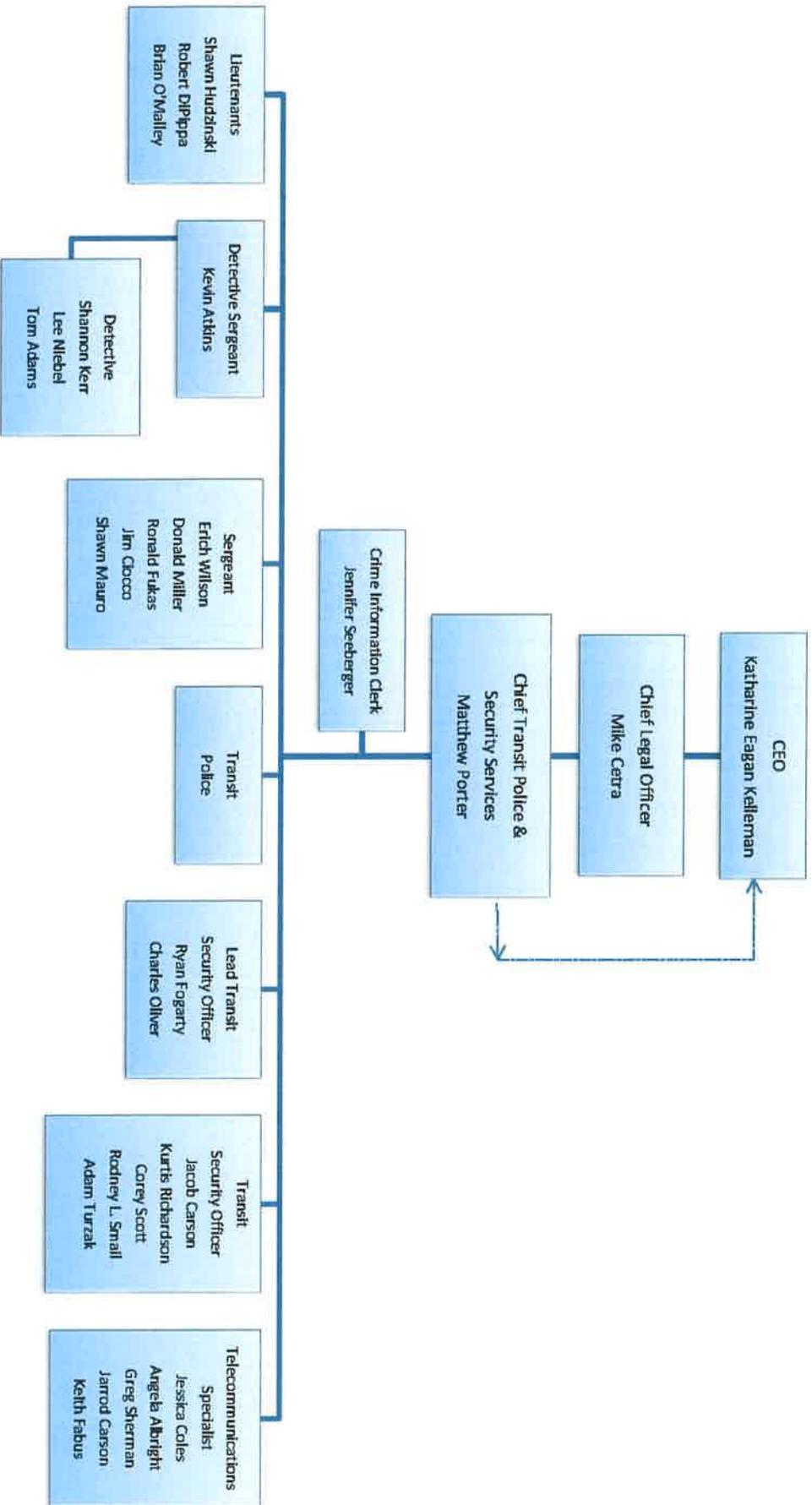
Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY ROAD OPERATIONS



Effective April 2020

PORT AUTHORITY OF ALLEGHENY COUNTY TRANSIT POLICE & SECURITY



Effective January 2020

APPENDIX C

SAMPLE CORRECTIVE ACTION PLAN

Corrective Actions Summary 38 out of 39 records

System ID	Fairfax Agency	Competition System ID	Organizational Type	Date Identified	RTSRP Investigator	Source	CAP Target Date	Status	Number of Days	Closed
1424	PAAC		Unfiled	12/19/2016	Mike Blumweil	RTSRP Audit - Safety	08/30/2017	Open	8	Open
1500	PAAC		Unfiled	03/09/2017	Mike Blumweil	RTSRP Audit - Safety	10/21/2017	Open	39	Open
1501	PAAC		Unfiled	03/09/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1502	PAAC		Unfiled	03/09/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1503	PAAC		Unfiled	03/09/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1504	PAAC		Unfiled	03/09/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1505	PAAC		Unfiled	03/09/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1506	PAAC		Unfiled	03/01/2017	Mike Blumweil	RTSRP Audit - Safety	08/30/2017	Open	8	Open
1508	PAAC		Unfiled	03/01/2017	Mike Blumweil	RTSRP Audit - Safety	08/30/2017	Open	8	Open
1510	PAAC		Unfiled	03/01/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1511	PAAC		Unfiled	03/01/2017	Mike Blumweil	RTSRP Audit - Safety	08/30/2017	Open	8	Open
1512	PAAC		Unfiled	03/01/2017	Mike Blumweil	RTSRP Audit - Safety	03/31/2018	Open	190	Open
1613	PAAC		Unfiled	03/01/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1640	PAAC		Unfiled	04/19/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1641	PAAC		Unfiled	04/19/2017	Mike Blumweil	RTSRP Audit - Safety	03/31/2018	Open	190	Open
1642	PAAC		Unfiled	04/19/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1643	PAAC		Unfiled	04/19/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1644	PAAC		Unfiled	04/19/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1645	PAAC		Unfiled	07/13/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open
1646	PAAC		Unfiled	07/13/2017	Mike Blumweil	RTSRP Audit - Safety	12/31/2017	Open	100	Open

APPENDIX D

HOURS OF SERVICE

Scope

This Policy covers Authority Operators as defined herein; establishes rules and procedures for Hours of Service; and is adopted in compliance with the Commonwealth of Pennsylvania Department of Transportation Order Number 017 issued by the Secretary of Transportation on July 23, 2013 and most recently extended and amended by the Commonwealth of Pennsylvania Department of Transportation Order issued by the Secretary of Transportation on August 1, 2016.

This Policy will be submitted to the Department of Transportation as required, and absent any objections by the Department of Transportation, it will remain in force so long as the Department's Order Number 017 issued on July 23, 2013 and most recently extended and amended by the Order issued by the Secretary on August 1, 2016, or laws or regulations adopting same, remains in effect. This Policy is subject to further amendment should the Department issue any additional orders concerning hours of service for Operators or should any additional laws or regulations be passed addressing same that are inconsistent with this Policy in any manner.

Purpose

The purpose of the Hours of Service Policy for Operators is to ensure the safety and welfare of the Authority's employees and passengers by promoting fatigue awareness programs and strategies, mandatory maximum hours on duty, and mandatory rest periods in preparation for the next scheduled workday.

Definitions

- **Adverse Operating Conditions** – means conditions that prohibit normal operation and schedule adherence, including but not limited to adverse weather conditions, such as those caused by snow, sleet, fog, ice, etc., or road and traffic conditions.
- **Critical Safety Conditions** – means any situation that results in one or more Operator vacancy, whether temporary or permanent, that by its nature, the filling of the vacancy is critical to the safe and efficient operation of the system and the overall health, welfare and safety of employees, passengers and the general public.
- **Emergency Conditions** – means any natural or man-made disaster that would prohibit normal operation and schedule adherence, including but not limited to

floods, earthquakes, tornados, fires, epidemics, accidents, special events involving large numbers of individuals and traffic gathered in concentrated areas of Port Authority's service area and/or any emergency declaration made by a public official so empowered.

- **Hours of Service (HOS)** – those hours that an Operator may work that are governed by this Policy and applicable law, rule, order or regulation.
- **Hours on Duty** – the number of hours the Operator works from the time he or she reports for scheduled work until he or she is relieved from duty.
- **Operator** – for the purposes of this Policy, an Operator means any properly licensed Authority employee who operates a Authority bus, including when that bus is not in revenue service.

General Requirements

1. Effective September 1, 2016, operator hours on duty shall not be more than 16 hours per workday.
2. Operators shall be scheduled a minimum of 8 hours of consecutive off duty time between work shifts.
3. Operators shall not operate a revenue service vehicle more than 30 hours in two consecutive days.

Exceptions

1. An Operator who encounters adverse operating conditions or emergency conditions and cannot safely complete his or her run within the allowable scheduled time may exceed the maximum hours of service by 2 hours. This additional time is to allow the Operator to safely complete the run and/or reach a place offering safety for the Operator, passengers and equipment. Prior approval must be received by Bus Traffic Operations (BTO). Occurrences will be noted in the daily BTO DOR and reported immediately to the appropriate BTO Assistant Manager.
2. The Chief Operations Officer, or designee may, based upon adverse operating conditions, critical safety conditions, emergency conditions, or other extreme unanticipated conditions or unforeseen events, temporarily suspend any or all of the above General Requirements. This exception will be reasonably communicated to all affected internal parties describing the reasons for the exception. Operators affected and expected duration of the exception. Where required by the Department of Transportation's Order Number 017 or the most recent Order

amending and extending same on August 1, 2016, or further rules and regulations adopting same, the Chief Operations Officer or designee shall notify the Commonwealth of Pennsylvania, Bureau of Public Transportation, and Pennsylvania State Police, in writing, when an emergency requiring temporary waiver of the HOS limitations has occurred. The notice must set forth the reason for the waiver, the duration of the waiver and confirm that the Authority did or will make all attempts to relieve affected Operators as soon as possible.

Responsibilities

General Requirements

1. Except as defined by this procedure, no Operator shall work beyond the established HOS. Operators are responsible to inform their supervisor, prior to accepting work, that they have been assigned work that does not comply with this Policy. It is ultimately the responsibility of the supervisor to ensure compliance with this Policy.
2. Operators are also responsible for informing their supervisor if they are engaged in any secondary employment that would affect their ability to accept work in compliance with this Policy, including required rest periods between work shifts.
3. All future picking notices shall contain the HOS requirements and comply with Department of Transportation Order Number 017, as most recently amended and extended by the Secretary's Order issued on August 1, 2016, and this Policy.
4. The Director of Bus Operations, or designee, will ensure that all runs and/or pieces of work available for pick are in compliance with the hours of service and rest periods established in this Policy.
5. Overtime work/assignments will continue to be offered in accordance with applicable collective bargaining agreements and policies and practices in place as of the Effective Date of this Policy, except to the extent that any such overtime work/assignment would violate this Policy. In those instances, the overtime work/assignment will be offered to the Operator with the highest seniority whose completion of the work/assignment would not violate this Policy in any manner.

Recordkeeping

1. Operations shall maintain a record of hours worked by all Operators, including shift start and end times and dates. These records are normally maintained in Midas and PeopleSoft programs and shall be stored for a minimum period of three (3) years.
2. Corner Cards identifying operator's name, payroll number, run number, date, start and finish time of runs, vehicle number, route number, and

operator signature shall be maintained by each operating division for a minimum period of three (3) years.

3. Accident statistics will be maintained through System Safety, Claims and Operations databases established for this purpose and also maintained for a minimum period of three (3) years.

Training

It is the responsibility of the Director of Road Operation/Transportation Training, or designee, to ensure that the Authority offers and maintains a fatigue awareness training program for all Operators, light rail vehicle operators, incline operators and managers and supervisors of same that complies with this Policy and the Department of Transportation's Order Number 017 as most recently amended and extended by the Secretary's Order issued on August 1, 2016, as applicable. Fatigue awareness training, via direct classroom and/or online modules that verify completion shall be provided to and completed by all newly hired Operators, light rail operators and incline operators. On an annual basis, refresher training shall be provided to and completed by all existing Operators, light rail vehicle operators, incline operators and managers and supervisors of same. This fatigue awareness training shall include a component that communicates the importance of rest between shifts and consideration of the potentially adverse effects of failing to take at least one scheduled pass day off after working more than two consecutive pass days.

Verification of Compliance

It is the responsibility of the Operations Division to verify compliance with this Policy and maintain accurate records of work hours. Third party auditing of compliance will be conducted internally by System Safety and / or Internal Audit and externally by applicable oversight agencies. Reports will be developed and maintained to track Operator daily work hours of greater than 16 hours and to track Operator work hours of greater than 30 hours over two consecutive days. Reports will be generated weekly by the Director of Bus Operations, or designee, and distributed electronically to the System Safety Office.

APPENDIX E

FITNESS FOR DUTY POLICY

PORT AUTHORITY OF ALLEGHENY COUNTY FITNESS FOR DUTY POLICY 10/1/14; Revised 1/1/18; 6/10/19

Port Authority is dedicated to providing a safe work environment and to protect the safety of employees, patrons, the public and transit property. This policy applies to all employees.

I. EMPLOYEE RESPONSIBILITIES

A. All Employees

Employees must report to work fit for duty, which means they are able to perform the duties of the job in a safe and effective manner. Employees are responsible for managing their health and knowing when they are not fit for duty. Employees are responsible for taking medications in a manner that allows them to safely perform their job responsibilities and report medications in accordance with Port Authority's Medication Policy.

Employees must not work if they are unfit for duty. Employees should contact Port Authority's Medical Department if they have questions about whether they are fit for duty. An employee must notify his or her manager/supervisor if he/she is not fit for duty. Employees must also notify a manager/supervisor if they observe that a co-worker may not be fit for duty. Where the co-worker is the manager/supervisor, the employee should notify the next higher-level manager.

Employees required to undergo a fitness for duty medical examination must cooperate in the process.

B. Employees in Safety-Sensitive Positions

As a safety standard for fitness for duty, employees in safety-sensitive positions requiring a commercial driver's license (CDL) or crane license must meet the physical qualifications of the

U.S. Department of Transportation Federal Motor Carrier Safety Administration's (FMCSA) regulations at 49 CFR §§ 391.41-49 (except §391.46) and interpretive guidelines (collectively referred to as "DOT Physical Qualifications"), as modified from time to time. A summary of DOT Physical Qualifications can be found on the DOT FMCSA website.¹

¹The FMCSA Medical Examiners Handbook containing Advisory/Guidance Criteria for many medical conditions can be found online at: http://nrcme.fmcsa.dot.gov/mehandbook/part_4_guide_ep.aspx (as of July 1, 2014).

DOT Physical Qualifications apply to employees in positions with job functions including, but not limited to, operation of a bus, light rail vehicle (LRV), commercial motor vehicle (CMV), cranes or heavy equipment, and transportation of hazardous materials.

Applicants for safety-sensitive positions requiring a commercial driver's license (CDL) or employees and/or applicants requiring crane license must undergo a fitness for duty DOT medical examination by Port Authority's contracted healthcare provider to obtain a valid Medical Examiner's Certificate. Employees in, and applicants being considered for, Operations and Maintenance positions requiring a CDL who have insulin-dependent diabetes must obtain an exemption to operate a commercial motor vehicle for Port Authority in Allegheny County, Pennsylvania pursuant to the Port Authority Insulin-Dependent Diabetes Exemption Program.

C. Managers/Supervisors

Managers/supervisors are responsible for observing and monitoring the attendance, performance, and behavior of the employees they supervise. Managers/supervisors are responsible for following the procedures in this policy when presented with information that indicates an employee may be unfit for duty. Actions that may trigger the need to evaluate an employee's fitness for duty include, but are not limited to, problems with dexterity, coordination, concentration, memory, alertness, vision, speech, inappropriate interactions with patrons, co-workers or supervisors, inappropriate reactions to criticism, or suicidal or threatening statements.

When a manager/supervisor observes or becomes aware of circumstances that indicate an employee may not be fit for duty, the manager/supervisor should:

1. If an immediate threat of violence exists, call 911 or Port Authority Police.
2. If appropriate, discuss the situation with the employee at the earliest possible time to allow the employee to explain his or her actions.
3. Determine whether a reasonable suspicion drug and/or alcohol test should be ordered (refer to Port Authority's Drug and Alcohol Policy for more information).
4. Contact the Medical Department for direction as to whether employee poses a significant threat to safety of self or others such that he/she should immediately stop performing safety-sensitive duties or leave the workplace. Medical will determine whether a fitness for duty examination should be required before resuming duties or returning to work.
5. Determine if the employee should be referred to the Employee Assistance

Program.

6. Determine whether retraining is appropriate and make necessary arrangements.

Managers/supervisors should contact the Medical Department, and any other relevant department, including but not limited to, Employee Relations, Office of Equal Opportunity, System Safety, and Legal, to determine the appropriate course of action.

Managers/supervisors shall maintain confidentiality of employee medical information in accordance with this policy.

II. MEDICAL EXAMINATIONS

Any medical examination that evaluates an employee or applicant's physical and/or mental condition(s) to determine if the employee can safely perform his/her job duties is a "fitness for duty" examination. As listed below, Port Authority requires employees and applicants to undergo fitness for duty medical examinations in various situations. Except for DOT Medical Examinations and new applicants, employees typically first see their own healthcare provider(s) and are then examined by Port Authority's contracted healthcare provider. Port Authority will notify employees when they must see a Port Authority healthcare provider.

A fitness for duty medical examination may be required in any of the following situations:

1. Pre-employment, as a condition of hire after job offer is made;
2. Before rehire or reinstatement;
3. Transfer into a position with different physical requirements;
4. Before returning to work following absence related to:
 - o an injury or illness of 8 calendar days or longer;
 - o an injury or illness requiring hospitalization;
 - o injury or illness that suggests a serious safety risks (refer to list of examples Appendix A for safety-sensitive positions or positions that involve driving);
5. If an employee's ability to perform essential job functions may be impaired by a medical condition or an employee may pose a direct threat due to a medical condition; and/or
6. When advised by a public health official that an employee may pose a risk of

spreading a highly contagious, serious disease to co-workers.

A. Procedure for Fitness for Duty Examinations – NON-DOT

When an applicant or employee is required to have a fitness for duty examination that is not for purposes of obtaining a DOT Medical Examiner's Certificate, the following procedures apply:

1. The Medical Department will notify the employee that an examination is required; if appropriate, the type of healthcare provider that must perform the examination, what medical information and/or records must be provided. Employees may be given forms to be completed by the healthcare provider. Employees are responsible for costs of the examination through their health insurance, and for the cost of copying medical records and completing forms. If the healthcare provider is selected by Port Authority, the examination is not intended for purposes of treatment and will be limited in scope to information directly related to the employee's ability to safely perform the duties of his/her position and Port Authority will pay for the examination.
2. The Medical Department will review the medical information and may require further information from the employee's healthcare provider or examination by a specialist in order to determine the employee's fitness for duty.
3. If the Medical Department determines the employee is fit for duty, the employee will be notified and should immediately contact his/her manager/supervisor and make arrangements to return to work.
4. If an employee is not fit for duty, the Medical Department, in consultation with appropriate personnel, will determine an appropriate course of action. This may include reasonable accommodation until the employee can obtain treatment to resolve the medical condition, is re-evaluated and deemed fit for duty.

B. Respiratory Protection Program Medical Examinations

Employees in positions or being considered for positions covered by Port Authority's Respiratory Protection Program must be medically qualified to wear a respirator. This includes, but is not limited to, Painter and Welder positions. Employees must complete a respirator medical evaluation questionnaire and may be required to undergo medical examination to determine qualification to wear a respirator. Employees whose job qualifications do not require use of a respirator who request a respirator, such as a Service Person, must be medically qualified in accordance with the Respiratory Protection Program before a respirator can be issued. Refer to Port Authority's Respiratory Protection Program for more information.

C. Insulin-Dependent Diabetes Exemption Program Medical Examinations

Employees in, and applicants being considered for, Operations and Maintenance positions where having a CDL is a requirement of the position and who are insulin-dependent due to a diabetic condition must meet all medical standards and requirements as set forth in the Insulin-Dependent Diabetes Exemption Program. Such employees/applicants must submit an Application for entry into the program, provide required medical records and documentation, and undergo initial and yearly follow-up medical examinations by a medical professional examiner at Port Authority's direction. Refer to Port Authority's Insulin-Dependent Diabetes Exemption Program for more information.

D. REASONABLE ACCOMMODATION

If an otherwise qualified employee/applicant, is not fit for duty, Port Authority will evaluate whether a reasonable accommodation can be made. Accommodations may include job restructuring, assignment to a temporary position (such as the Vehicle Cleaner position under the ATU MOA Re: Light Duty), job transfer and medical leave, subject to the terms of any applicable collective bargaining agreement. If the need for accommodation is obvious, the Medical Department, in consultation with other appropriate personnel, will evaluate if a reasonable accommodation can be provided. If the need for reasonable accommodation is not obvious, employees should contact Port Authority Office of Equal Opportunity to request a reasonable accommodation.

E. CONFIDENTIALITY AND RECORDS

Employee medical records shall be maintained as confidential in separate files/records from the usual personnel files except that: (1) managers/supervisors may be informed regarding necessary restrictions and accommodations; (2) first aid and safety personnel may be informed (when appropriate) if the employee's physical or medical condition might require emergency treatment; and (3) government officials investigating compliance with disability laws (or other pertinent law) shall be provided relevant information upon request.

APPENDIX

LIST OF INJURIES OR ILLNESSES THAT SUGGEST SERIOUS SAFETY RISKS

This list applies to employees in safety-sensitive positions or positions that involve driving. The ability to safely perform job duties may be affected if an employee experiences an injury, illness or symptom that suggests a medical condition listed below or the employee experiences a change in a condition listed below. This list is not meant to cover every possible medical reason that may impact an employee's ability to safely perform safety-sensitive job duties and may change from time to time.

- Loss of limb (foot, leg, arm/hand)
- Limb impairment (hand, finger, arm/shoulder, foot, leg/hip) that interferes with grasping or operating a CMV
- Diabetes (hyperglycemic or hypoglycemic reactions such as drowsiness, loss of consciousness, confusion, loss of attention, decreased reaction time, impaired vision or hearing, diabetic coma, insulin shock)
- Cardiovascular conditions such as myocardial infarction (heart attack), angina pectoris (chest pain), coronary insufficiency, thrombosis (blood clots, stroke), or any heart condition known to be accompanied by syncope (fainting or passing out), dyspnea (shortness of breath), collapse or congestive heart failure
- Respiratory dysfunction (emphysema, chronic asthma, carcinoma, tuberculosis, chronic bronchitis, sleep apnea)
- Hypertension (high blood pressure)
- Rheumatic, Arthritic, Orthopedic, Muscular, Neuromuscular or Vascular Disease
- Any condition which is likely to cause a loss of consciousness such as epilepsy or seizure (including, dizziness, vertigo, narcolepsy, head injury)
- Mental or psychological disorders, including mental or psychological conditions that cause drowsiness, dizziness, confusion, weakness or paralysis; paranoia or severe depression; schizophrenia, psychosis, paranoia, anxiety or persistent depressive disorder
- Serious injury to eyes or ears (damage to vision or hearing)
- Use of a prescription medication that is a controlled substance such as an amphetamine, narcotic, or other habit-forming drug.
- Alcoholism
- Drug Addiction

APPENDIX F

SAFETY CERTIFICATION PROGRAM TRAINING

Key Port Authority Staff with Primary Safety Job Function

Student's First Name	Student's Last Name	PORT AUTHORITY, PITTSBURGH e-mail address for student	Class / Location / Dates (Select a class from the drop-down menu. Click on a cell and the drop-down button will appear to the right of the cell)	Notes
Daniel	Flanagan	dflanagan@portauthority.org	RII-2001 - Boston, MA November 4-8, 2019 - \$100	RAIL cert completed
Daniel	Flanagan	dflanagan@portauthority.org	EMTE-2005 - Chicago, IL February 24-27, 2020 - \$65	RAIL cert completed
Burton	Jennings	bjennings@portauthority.org	BSS-2003 - Philadelphia, PA December 2-6, 2019 - \$115	RAIL cert completed
Rich	Woodward	rwoodward@portauthority.org	BSS-2003 - Philadelphia, PA December 2-6, 2019 - \$115	RAIL cert completed
Chad	Snyder	csnyder@portauthority.org	RSS-2003 - Landover, MD February 10-14, 2020 - \$145	
Chad	Snyder	csnyder@portauthority.org	RII-2003 - Kansas City, MO March 16-20, 2020 - \$100	
Ryan	Hardy	rhardy@portauthority.org	RII-2004 - Seattle, WA April 20-24, 2020 - \$100	
Ryan	Hardy	rhardy@portauthority.org	EMTE-2005 - Chicago, IL February 24-27, 2020 - \$65	
Jon	Taucher	jtaucher@portauthority.org	RSS-2002 - Charlotte, NC November 18-22, 2019 - \$145	
Jon	Taucher	jtaucher@portauthority.org	RII-2007 - Newark, NJ July 6-10, 2020 - \$100	
Sam	Martelli	smartelli@portauthority.org	EMTE-2009 - Philadelphia, PA June 1-4, 2020 - \$65	
Sam	Martelli	smartelli@portauthority.org	RSS-2003 - Landover, MD February 10-14, 2020 - \$145	